A Curriculum for Specialist Training in Family Medicine for Malta

Malta College of Family Doctors Curriculum Board 2008-2010

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Dr Daniel Sammut MD MMCFD
Dedication

To all the GP trainees and their GP trainers, and to all those who support them in their mission, making our common vision for the future of Family Medicine in Malta come to fruition.

In living and loving memory of an affable colleague, the late Dr Saviour Cilia, whose infective enthusiasm to see the STPFM take off, will be fondly remembered by all those who had the privilege of making his acquaintance.
Acknowledgements

We are grateful to the President (Dr M. Grixti) and the Council of the MCFD for having faith in our abilities, and for giving us assistance and encouragement in times of need.

We thank the members of the Assessment Board of the MCFD (Dr D. Cassar, Dr P. DeGabriele and Dr A.P. Zammit) and the Postgraduate Training Coordinators (Dr M.R. Sammut and Dr G. Abela) for working closely with us and giving us very useful feedback.

We are also grateful to several colleagues whose valuable contributions are acknowledged in the relevant sections of this curriculum. Dr Philip Sciortino has voluntarily contributed a chapter.

We cannot fail to mention and thank Dr J. Howard and Dr A. Freeman, who, in their capacity as Medical Director and International Development Advisor for the MRCGP(Int) respectively, provided us with unfaltering support throughout the whole process.

We are greatly indebted to our families for bearing with us during the long hours of work that this curriculum involved, and for giving us continuous emotional sustenance.
‘Vision without action is merely a dream.

Action without vision just passes the time.

Vision with action can change the world.’

Joel A.Barker. Future Edge: Discovering the New Paradigms of Success
Family medicine is an exciting, intellectually challenging specialty and very fulfilling profession but none the less very demanding and not for the faint-hearted! As practicing family physicians, we are aware that people consult us with multiple purposes, have underlying psychosocial issues, and have behaviors that contribute to their health or illness. These add complexity to each visit. Aware of these factors, we attempt to weave these concepts into the curriculum.

Primary care is implicitly devalued in our health care system and in our training settings despite the value demonstrated in many studies across all continents. In spite of the fact that Family Medicine caters for acute presentations, common chronic conditions and health maintenance providing a significant proportion of health care to the population, primary care needs to gain better recognition, and more aspects of care be rightly delegated to the Family Doctor. It was only a few years back that the Department of Family Medicine at the University of Malta was set up (2001) and General Practice recognised as a speciality (2004). On a positive note, the Malta College of Family Doctors took the lead from amongst representative colleges of other specialities, embarking on a vocational training programme in July 2007.

Embarking on the design of this curriculum is a leap forward in formally defining the role of family doctors and highlighting the importance of Family Medicine in Malta. Through its’ successful implementation, Family Medicine has the potential to be at the leading edge of medical training and professional practice in the local medical arena.

Drawing up a deliverable and comprehensive curriculum which fulfills the needs of the relevant stakeholders has been an onerous task. It has no boundaries and
feels like a constantly expanding universe. Apart from the novelty of the process and our limitations with resources, one needs to factor in the following:

- work force shortages
- shift in population demographics and rapidly changing community needs
- increase in diversity in our population and globalization of medicine
- rapid changes in the bio- and socio-economic spheres
- the ‘educated’ patient immersed in informative IT resources.

The impact of these changes on the practice of Family Medicine is undeniable. All the above factors have added to the complexity and uncertainty that Family Medicine is constantly immersed in. Whilst acknowledging that more experience and feedback are needed to constantly improve and bring about desired changes, this Curriculum attempts as best as it can to cater for the above mentioned additional challenges. A dose of ‘blue sky thinking’ has been injected into the curriculum to help motivate those involved in the training programme to extend themselves beyond their current comfort zones. Without pushing boundaries, standards will never rise.

The role of the Curriculum is not only to help trainees develop competence, but also about being a ‘Good Doctor’ and the other attributes of professionalism. It is founded on what we perceive as important enduring values and great attention is given to the humanistic attributes of compassion, empathy and respect. These attributes are at the very core of the curriculum and are inextricably woven into every aspect of it. May these form an indelible part of the curricular blueprint and may its’ “memes” preserve all that has so far served the practice of Family Medicine in Malta so well. Echoing the words of David Leach, we shall strive to “.. preserve the best, and be malleable about the rest.”

The ultimate test of all the energy and efforts invested in this STPFM, is its ability to help mould GP trainees into efficient and effective GP’s who are flexible and capable of adapting to the constant change and constraints of the context they work in. Above all the greatest fulfillment for this curriculum team will be witnessing our future GP’s being able to connect with all, including themselves, this on a humane level. May they rise to the challenge of dealing with uncertainty and to embrace this confidently and without fear.

We hope that this curriculum will offer the necessary ‘guidance’ conducive to ‘growth’. We augur, that the educational experience provided, will make for a fulfilling journey which assists the metamorphosis from ‘being’ a GP trainee to ‘becoming’ a confidently competent and compassionate GP. Confident of the
competence and commitment of many to see this intended curriculum being enacted, we bank on the cohesion of crucial team players to ensure that the experienced curriculum is a truly positive experience endorsed by quality assurance throughout.

It is recognized that this an evolutionary process and that documentation produced will need modification in the light of ongoing evaluation, experience, changing clinical practice and educational advise. May this prototype curriculum form the bedrock for all the other changes it will need to undergo to keep it alive.

“To live is to change, to be perfect is to have changed often.”

(Cardinal J.H.Newman)

Sandra Falzon Camilleri
Chair
Curriculum Board
Malta College of Family Doctors
July 2009
# List of Acronyms used in this Curriculum

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<td>ABPI</td>
<td>Ankle Brachial Pressure Index</td>
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<td>ACEI</td>
<td>Angiotensin-Converting Enzyme Inhibitor</td>
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<td>ACS</td>
<td>American Cancer Society</td>
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<td>ADHD</td>
<td>Attention Deficit Hyperactive Disorder</td>
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<td>ADT</td>
<td>Autorità Dwar it-Transport</td>
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<td>AF</td>
<td>Atrial Fibrillation</td>
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<td>AHA</td>
<td>American Heart Association</td>
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<td>AIDS</td>
<td>Acquired immune Deficiency Syndrome</td>
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<td>ALS</td>
<td>Advanced Life Support</td>
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<td>Aerospace Medical Association</td>
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<td>ARB</td>
<td>Angiotensin Receptor Blocker</td>
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<td>ASA</td>
<td>American Stroke Association</td>
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<td>ASD</td>
<td>Atrial Septal defect</td>
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<td>ATS</td>
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<td>BASHH</td>
<td>British Association for Sexual Health and HIV</td>
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<td>BCSH</td>
<td>British Committee for Standards in Haematology</td>
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<td>BIS</td>
<td>British Infection Society</td>
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<td>BLS</td>
<td>Basic Life Support</td>
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<td>BMA</td>
<td>British Medical Association</td>
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<td>Body Mass Index</td>
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<td>BNF</td>
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<td>blood pressure</td>
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<td>BPPV</td>
<td>Benign Paroxysmal Positional Vertigo</td>
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<td>British Society of Gastroenterology</td>
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<td>BSR</td>
<td>British Society for Rheumatology</td>
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<td>BTA</td>
<td>British Thyroid Association</td>
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<td>BTF</td>
<td>British Thyroid Foundation</td>
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<td>BTS</td>
<td>British Thoracic Society</td>
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<td>CAM</td>
<td>Complementary and Alternative Medicine</td>
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<td>CBD</td>
<td>Case-Based Discussion</td>
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<td>CBT</td>
<td>Cognitive Behavioural Therapy</td>
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<td>CCST</td>
<td>Certificate of Completion of Specialist Training</td>
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<td>CDC</td>
<td>Centre for Disease Control and Prevention (US)</td>
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<td>CHF</td>
<td>Congestive Heart Failure</td>
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<td>CI</td>
<td>confidence interval</td>
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<td>chronic kidney disease</td>
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<td>CMA</td>
<td>Canadian Medical Association</td>
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<td>CME</td>
<td>Continued Medical Education</td>
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<td>COLD</td>
<td>Chronic Obstructive Lung Disease</td>
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<td>COT</td>
<td>Consultation Observation Tool</td>
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<td>COX-2</td>
<td>Cyclo-oxygenase-2</td>
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<td>CPD</td>
<td>Continued Professional Development</td>
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<td>CRP</td>
<td>C-reactive protein</td>
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CSR  Clinical Supervisor Report
CT  Computerised Tomography
DCCT  Diabetes Control and Complications Trial
DEN  Doctor Educational Need
DHSSP  Dept. of Health, Social Services and Public Safety (Ireland)
DMM  Dept. of Medicine (Malta)
DOH  Dept. of Health (UK)
DOPS  Directly Observed Procedure
DRSP  Drug Resistant Strep. pneumoniae
DTC  Drugs and Therapeutics Committee
EACS  European AIDS Clinical Society
EAU  European Association of Urology
EBM  Evidence-Based Medicine
EBO  Evidence-Based Practice
ECCO  European Crohn's and Colitis Organisation
ECDL  European Computer Driving Licence
ECG  Electrocardiogram
EKC  Essential Knowledge Update
EMEA  European Medicines Agency
EMR  Electronic Patient Medical Record
ENT  Ear, Nose, Throat
ESC  European Society of Cardiology
ESCEO  European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis
ESR  erythrocyte sedimentation rate
EKC  Essential Knowledge Update
EU  European Union
EURACT  European Academy of Teachers in General Practice
FEV₁  Forced expiratory volume in one second
FMF  Familial Mediterranean Fever
FVC  Forced vital capacity
G6PD  Glucose-6-Phosphate Dehydrogenase
GFR  Glomerular Filtration Rate
GINA  Global Initiative for Asthma
GOLD  Global Initiative for Chronic Obstructive Lung Disease
GORD  Gastro-Oesophageal Reflux Disease
GP  General Practitioner
GPwSI  General Practitioner with Special Interest
GU  Genito-Urinary
HDL  high density lipoprotein
HDRC  Half Day Release Course
HGT  Haemoglutcotest
HIV  Human Immunodeficiency Virus
HPA  Health Protection Agency (UK)
HT  hypertension
IAS  International AIDS Society
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<tr>
<th>Acronym</th>
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<td>ICGP</td>
<td>Irish College of General Practitioners</td>
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<td>ICPC-2</td>
<td>International Classification for Primary Care ver.2</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<tr>
<td>IDA</td>
<td>International Development Advisor</td>
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<td>IDF</td>
<td>International Diabetes Federation</td>
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<tr>
<td>IDSA</td>
<td>Infectious Disease Society of America</td>
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<tr>
<td>IHD</td>
<td>Ischaemic Heart Disease</td>
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<tr>
<td>IM&amp;T</td>
<td>Information Management and Technology</td>
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<tr>
<td>ISAAC</td>
<td>International Study for Asthma and Allergies in Childhood</td>
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<tr>
<td>LDL</td>
<td>low density lipoprotein</td>
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<tr>
<td>LE</td>
<td>life expectancy</td>
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<tr>
<td>LVH</td>
<td>left ventricular hypertrophy</td>
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<tr>
<td>MAM</td>
<td>Malta Medical Association</td>
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<tr>
<td>MCFD</td>
<td>Malta College of Family Doctors</td>
</tr>
<tr>
<td>MCPP</td>
<td>Malta College of Pharmacy Practice</td>
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<tr>
<td>MI</td>
<td>Myocardial Infarction</td>
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<tr>
<td>Mini-CEX</td>
<td>Mini Clinical Evaluation Exercise</td>
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<tr>
<td>MMCFD</td>
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<td>MRA</td>
<td>Magnetic Resonance Angiography</td>
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<tr>
<td>MRCGP (Int)</td>
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<td>MRI</td>
<td>Magnetic Resonance Imaging</td>
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<td>MRSA</td>
<td>Methicillin Resistant Staphylococcus aureus</td>
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<td>MSF</td>
<td>Multi-Source Feedback</td>
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<td>NCCCC</td>
<td>National Collaborating Centre for Chronic Conditions (UK)</td>
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<tr>
<td>NCCPC</td>
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<td>NCEP</td>
<td>National Cholesterol Education Program</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NHS</td>
<td>National Health Service</td>
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<tr>
<td>NICE</td>
<td>National Institute for Health and Clinical Excellence</td>
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<td>NNT</td>
<td>number needed to treat/test</td>
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<td>NSAID</td>
<td>Non-Steroidal Anti-inflammatory Drug</td>
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<td>NYHA</td>
<td>New York Heart Association</td>
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<td>OHP</td>
<td>Occupational Health Physician</td>
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<tr>
<td>OTC</td>
<td>over the counter</td>
</tr>
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<td>OT</td>
<td>Occupational Therapist</td>
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<tr>
<td>PAD</td>
<td>Peripheral Arterial Disease</td>
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<tr>
<td>PDD</td>
<td>Pervasive Developmental Disorder</td>
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<td>PDR</td>
<td>Proliferative Diabetic Retinopathy</td>
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<td>PEFR</td>
<td>Peak expiratory flow rate</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>PSI</td>
<td>Patient Safety Incident</td>
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<td>PSQ</td>
<td>Patient Satisfaction Questionnaire</td>
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<tr>
<td>PTC</td>
<td>Postgraduate Training Coordinator</td>
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<tr>
<td>PUN</td>
<td>Patient Unmet Need</td>
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<tr>
<td>RA</td>
<td>Rheumatoid arthritis</td>
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# Contents

## Section A:  
*Introduction, Definition and Implementation of the Curriculum*

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Section A:

Introduction, Definition, and Implementation of the Curriculum
Chapter 1.
Introduction to the Curriculum

Author: Dr Daniel Sammut MD MMCFD

Historical and Socio-Cultural Background

Malta boasts of an exquisite and rich prehistory and history. The first colonists are thought to have come from Sicily. Human remains date back from the Neolithic phase (Ghar Dalam; 5000 BC) and civilisation flourished in the fascinating Temple phase.¹

The strategic location of the archipelago in the centre of the Mediterranean Sea together with Malta’s superb natural ports have always attracted the attention of sea-faring peoples. Throughout the ages, the islands have been colonized successively by the Phoenicians, the Carthaginians, the Romans, the Arabs, the Normans, the Angevins, the Aragonese, the Knights of the Order of St. John, the French and the British. To different extents, these civilisations have left their imprint on the local gene pool, language, and culture (including health beliefs and treatments).

St. Luke is the first ‘general practitioner’ mentioned by name in the annals of Maltese history. In the Acts of the Apostles, St. Luke describes how he and St. Paul were shipwrecked on Malta (c. 60 AD).²³ He narrates how St. Paul was bitten by a viper and was expected to “swell up or drop dead on the spot.” He also reports that the father of St. Publius, the prefect of the island, “was in bed, suffering from feverish attacks and dysentery.” However, it was St. Paul who did all the healing at the time.

The Middle Ages

It was only towards the end of the 13th century that we find some definite material about the history of medicine in Malta. However, under Norman rule, medical practice was probably under the public ordinances published by Roger II in 1140. These ordinances regulated licensing to practice and teach medicine, the professional relationship between doctors and pharmacists, medical fees, and public hygiene. The medical profession during the Middle Ages consisted of physicians (medicus fisicus), surgeons (medicus cirurgico) and pharmacists (aromatorio).
Medical education in the Middle Ages generally started as an apprenticeship with an established physician for several years. Then, the apprentice would continue his studies on the Continent.4

The Knights of the Order of St. John of Jerusalem

The Knights of the Order of St. John, who had a strong Hospitaller tradition, settled in Malta in 1530 and brought along an immigration of physicians and surgeons from Europe. Maltese physicians were also employed by the Order to serve in the Sagra Infermeria in Birgu, and later in Valletta. Domiciliary services were also provided in Valletta and the Grand Harbour area.

The practice of medicine in the beginning of the Modern epoch was primarily based on the teachings of classical and medieval authorities such as Galen, Rhazes, Avenzoar and Avicenna. The physicians and surgeons of the Order were well-versed in the latest developments in medicine and compared well with their European counterparts.

The Faculty of Medicine and Surgery in the University of Malta was founded in 1771, but was disrupted when the Maltese islands were ceded by the Knights of the Order of St John to Napoleon Bonaparte in 1798. The Maltese rebelled against the French after two years, and the British occupied the islands.4

A British Colony

Thereafter, the history of medicine in Malta took a new turn towards British medical culture. This medico-cultural influence was instigated by contact with British doctors who came to practice in our country with the navy and the army. Some of them settled here permanently.

The Medical School was re-established by Sir Alexander Ball in 1800. The early beginning was characterized by confusion, but the professional level was of good standard. In 1879, Sir Patrick Joseph Keenan was sent to Malta to study the system of education. He was of the opinion that a reform was necessary in the medical curriculum of the University. Keenan stated that after the reform is complete, “this small school of Medicine and Surgery may…. keep abreast with every Medical College in the British Empire and be entitled to recognition and privileges that are given to students from universities and colleges in Great Britain, Ireland and the colonies.” This recognition became effective with the order of the Council in 1901 (Medical Act 1886).

The 18th and 19th centuries saw great progress in medical knowledge and public health issues such as sanitation and vaccination (e.g. against smallpox and diphtheria). In 1866, Colonel Dr David Bruce, assisted by the Maltese doctor Giuseppe Caruana Scicluna, identified the microbe that causes ‘undulant fever’ in the spleen of patients. Later, in 1887, the same researchers also confirmed that the ‘comma spirillum of Koch’ was the agent that caused cholera. Sir
Themistocles Zammit came to the right conclusion that brucellosis was transmitted by unpasteurised goat’s milk.

The British connection allowed for new medical discoveries to be implemented in Malta soon after their invention. These included anaesthesia and X-rays. The first sulphonamide antibiotic was being used here in 1935, only three years after its discovery. ⁴

**The Bereġ**

The British opened the first Berġa, (or Government Dispensary or Farmacia dei Poveri) in Valletta, on the 14th April 1832 with the aim to reduce the very big number of patients from the Central hospital. It was a hard time in Malta during those days; time of severe poverty and hardship, even Maltese people of middle class sought free aid from charitable institutions.

The services offered then were by a pharmacist, two doctors and two surgeons. Till 1833, a total of 22,000 people were seen to and helped. The first dispensary was situated in Merchants Street, Valletta, at the Auberge d’Italie - contemporary documents refer to it as Albergo dei Poveri from where the Maltese term ‘Berġa’ is derived.

The success of the first Berġa in Valletta till 1849 was enormous, so much so that patients visiting the Central Hospital were reduced by half. As a result similar Bereģ were opened in many towns and villages of Malta. The Bereġ were always situated as an annex of the local Police Station. During the mid 19th century not less than 21 medical doctors known as Dispensers were responsible for the Bereġ, dispensaries from where medicines were dispensed.

The doctors used to assist the poor free of charge, keep all medicines safely stored in the Berġa, and visit the sick in their homes on the advice of the local mayor or parish priest. They used to assist mothers to give birth, administer vaccines to poor children in epidemic outbreaks, intervene in major incidents and refer the very sick to hospital. They were responsible to issue permits for burials and to carry out autopsies in doubtful circumstances of death. It was also the task of the doctors at the Berġa to inspect the food for sale at retail points, to submit a weekly report on the hygienic state of their district and to notify immediately all cases of unusual contagious disease.

In 1879 Sir Julian Penrose changed the name of Police Doctors to District Medical Officers (DMO), and the regulations were published in 1885 together with the guidelines on how to run their respective Berġa. In 1883 it was reported that the Bereģ were in dire state, registration of patients was not kept, medicines were expired, medical instrumentation was faulty and the place was unhygienic. Drastic measures were taken to improve the state of the bereģ and the Medical Services for the Poor were passed in 1897 to the Director of Charitable
Institutions. In 1900 the services were then passed back to the Department of Public Health. The DMO service was provided free of charge to families in their district who qualified for the Medical Aid Grant based upon income thresholds.

**Independence**

Malta gained independence from the British crown in 1964, but retained close ties with the United Kingdom, which had a military presence, until 1979. In 1974 a republican constitution was adopted, and the President of Malta replaced the Queen of England as the head of state.

**The Industrial Dispute of 1977**

In 1977, an industrial dispute between the Government and the Medical profession resulted in an upheaval in the local medical scene and a change in the structure of the curriculum of the Medical School. The DMO system ceased to function during the same period.

**The Polyclinics**

Another consequence of this dispute was the opening of the Regional Polyclinics (now numbering 8) to cater for the health needs of the community. Thus the present day Health Centres originated from what was an emergency primary care set up.

These Health Centres are still the hub of the primary health care services provided by the Government. About 66 GPs are employed in manning the clinics and also they carry out domiciliary visits. Besides the general practitioner and nursing services, various specialised health services are provided, including immunisation, speech therapy, dental services, antenatal and postnatal clinics, Well Baby clinics, diabetes clinics, and paediatric clinics. These services are all provided free-of-charge at point of use to all the citizens of Malta.

The government GP service is plagued by a lack of GP staff (presently standing at only two-thirds of the recommended complement) due to poor employment conditions. As a result of this, doctors in health centres have to see a disproportionately large amount of clients, and often can only dedicate the minimum time necessary to see to a client’s complaints. As there is no patient registration in Malta, a client can walk into a health centre at any time to see the doctor who happens to be on duty, this resulting in a poor doctor-patient relationship.

**The Private Primary Care Sector**

Besides the public primary care services, the Maltese islands also have a completely separate and thriving private primary care sector. It has been
estimated that the private sector accounts for about two thirds of the workload seen in primary health care. Today, it is estimated that there are 200 self-employed solo private medical practitioners, and a couple of group practices. They provide their patients with an easily accessible, continuous, person-oriented healthcare which integrates curative and rehabilitative care. The emphasis on health promotion and disease prevention has increased in the last decade.

Maltese patients are free to access any doctor or specialist directly whenever they require medical attention. Unfortunately, this allows for many patient self-referrals to other medical specialists in private practice (e.g. in gynaecology, paediatrics, dermatology, orthopaedics) who bypass the family doctor completely. This is not cost-effective for the patient, disrupts continuity of care, and sometimes leads to inappropriate self-referrals.

Private GPs are paid on a fee-for-service basis, with very accessible fees. Many family doctors in Malta still perform a disproportionately large number of home visits, and are sometimes called for trivial reasons, even after hours.

While medical record keeping in Maltese private practice cannot be said to be optimal and formal registration is non-existent, private GPs still have a core of patients who consult them most of the time for all their health needs, with satisfactory continuity of care and doctor-patient relationships. As a result, it is the culture for a typical client to attend a health centre doctor for trivial and run-of-the-mill complaints (e.g. colds, BP checks, repeat prescriptions, sickness certificates), but to then seek his private GP’s advice regarding more serious medical problems. This also happens when the solo private GP does not provide a 24hr by 7 day service.

Private GPs also carry out a large amount of occupational medicine, mostly in the form of domiciliary visits to employees who report unfit for work. Unfortunately this has traditionally meant a “policeman” role on behalf of the employer to send employees back to work as soon as possible, with lack of respect to the patient’s rights in some instances. This situation is hopefully improving as doctors are becoming more patient-oriented.

**Primary vs. Secondary Health Care**

Communication difficulties between family doctors and other medical specialists have haunted the local health care service for far too long. The problem has many roots, but it seems that things are starting to improve lately, with efforts being made on both sides.

The brand new Mater Dei hospital is being overcrowded with patients and beds never suffice, particularly in the winter months. The Accident and Emergency Department is also being overwhelmed with cases every day, many of which can easily be dealt with in Primary Care. The gate-keeper function of the family doctor is not being utilised to its capacity. As things stand at present, there are
health inequalities in secondary care because people who can pay can skip (often long) waiting-lists and have easy access to private care.

In the pre-budget document for 2009, the current Maltese Government stated:

“Having recently achieved an important milestone with the opening of Mater Dei Hospital, in the coming months and years Government intends to turn its attention to strengthen primary and community care services. The emphasis across all services shall be a preventive approach together with a focus on rehabilitation to ensure that people remain active and independent within their communities wherever possible. Such an approach will also lead to more effective and sustainable use of the resources within Mater Dei Hospital.

The planned developments mentioned in this document are:

- To reform and strengthen primary and community care;
- To step up the fight against cancer to reduce age standardized incidence and increase overall 5 year survival;
- To reduce the burden of cardiovascular disease and diabetes;
- To strengthen services and support for families with dependent persons;
- To promote patients’ rights and responsibilities;
- To further invest in ICT for the health sector;
- To develop and sustain a health-care work force capable of meeting the growing needs of the population.”

The Malta College of Family Doctors

In 1988, a development plan for Family Medicine in Malta was commissioned by the University of Malta’s Faculty of Medicine & Surgery. The report recommended (amongst others) the development of a vocational training programme in Family Medicine and the setting up of a Malta College of Family Doctors (MCFD), with the latter being founded in 1989.

Mindful of the fragmented state of Maltese family practice, the Malta College of Family Doctors in 1998 approved a ‘Policy Document on Family Medicine in Malta’ which specified the circumstances needed for the development of family practice. Besides structural conditions (a discrete population and a referral system) and organisational improvements (as regards record-keeping, teamwork and practice organisation), the College recommended a review of professional development through quality assurance, research and education. The latter included a structured programme for vocational/specialist training in family medicine to replace the existing system where doctors could embark on a career in family practice immediately after completing their two years’ pre-registration medical training in hospital.

In 2000, the MCFD, the Medical Association of Malta and the Director General (Health) proposed the introduction of a 3-4 year course in Vocational Training in Family Medicine. After the MCFD hosted two ‘International Courses for Teachers
of General Practice’ in collaboration with the Royal College of General Practitioners during 2002-3 and 2004, calls for applications for a coordinator and trainers were issued in 2003 and 2004.  

EU Accession and Specialist Training
Malta became a full member of the European Union in 2004. This fact brought winds of change to local Family Medicine. The Health Division’s Primary Health Care Department was obliged by EU Directive 93/16 to introduce Specialist Training in Family Medicine. Hence, the Specialist Accreditation Committee (SAC) was formed and it recognized Family Medicine as a Speciality, at a par with other medical fields.

As the academic body responsible for developing specialist training in Family Medicine, the Education subcommittee of the MCFD drew up the ‘Specialist Training Programme in Family Medicine’ (STPFM). This programme was approved by the SAC on 9th November 2006, and its launch in 2007 was announced officially by Malta’s Director General of Health on the 30th November 2006 during the 6th Malta Medical School Conference.  

The Curriculum
The Specialist Training Programme in Family Medicine was launched on the 9th July 2007 and it was the first of all training programmes for medical specialities to be launched in Malta. The SPTFM contains many elements of a curriculum but lacks details about certain elements. Regrettably, a full curriculum was not available to the stakeholders from the start of the programme.

To redress this situation, the MCFD set up a Curriculum Board in May 2008. The Curriculum Board was requested to design a Curriculum that would provide a detailed framework for the Specialist Training Programme in Family Medicine. At the same time, the MCFD has also set up an Assessment Board to develop a Summative Assessment for the trainees presently in training.

During their 3 year course, trainees in Family Medicine now have a golden opportunity to identify and satisfy gaps in their knowledge, hone their skills and question their values, attitudes, and beliefs. This will undoubtedly help them become competent, reflective and self-educating family doctors, with countless benefits to be reaped for themselves, their patients and Maltese society at large.

It is important that this curriculum ties-in logically with the curriculum for undergraduate training. Many facts and skills would already have been learnt by the newly-graduated doctor, and these provide a solid base for vocational training. Furthermore, a similar teaching approach would help doctors make a smoother transition.
It is hoped that by investing energy, resources, quality and pride in Family Medicine, the Specialist Training Programme will enhance the image and status of Maltese GPs in their own view, in the outlook of other healthcare workers, and in the opinion of the general public.

**Definition of ‘Curriculum’**

It has been recognized that defining a curriculum is complex, and although different definitions have been offered, none has been universally accepted. Thus, it is important to be clear from the beginning what it should be taken to mean. The meaning of the word ‘curriculum’ differs from ‘syllabus’, because the latter only refers to the content of teaching. ‘Curriculum’ describes the total program of an educational system, with all its facets and ramifications.

In addition, there are ‘formal’ and ‘informal’ components to the curriculum. Formal activities are allocated in the timetable, while informal activities are usually voluntary and outside working hours.

It is also important to recognise that, in practice, the actual activities (actual curriculum) may differ from what has been planned (official curriculum). There are other aspects of the curriculum that are not planned (hidden curriculum). The hidden curriculum can be tacitly contributed to by the structure of the programme, local culture and by the trainer/s.

Finally, we may accept what Kelly in 1982 described as “a loose definition of the curriculum,” namely, that the curriculum is “all aspects and dimensions of the educational experiences which pupils have during any period of formal education.” Obviously this will include the formal, the informal, and the hidden curriculum.

**Developing a Curriculum for Malta**

In the process of developing this curriculum, the Curriculum Board has tried to address Harden’s Ten Questions. Since the first step requires a **Needs Assessment, Focus Groups** were held with the principal stakeholders including trainees, trainers, representatives of the public, and the National Co-ordinators. The aim here was to explore the needs of these various sectors in relation to the Specialist Training Programme. The use of open questions, active participation of the audience, voice recording, and laborious transcription supplied a wealth of data that was analysed qualitatively and used to inform the blue-printing of the curriculum.

In addition, **Questionnaires** were sent to both trainees and trainers with the following objectives:

a. to evaluate the specialist training programme in all its components as it had proceeded up to July 2008.
b. to get detailed feedback about suggested content (modules and skills) to be included in this curriculum

The questionnaires were mainly based on statements followed by a Likert scale. This allowed for quantitative analysis of data related to management of the training programme, teaching resources, educational environment, teaching methods, formative assessment, summative assessment and learning outcomes. A second section dealt with curriculum content, while the last section invited qualitative comments and suggestions. Again, this exercise gave the Curriculum Board a good picture of what the trainees and the trainers need from the curriculum.\textsuperscript{14,15}

The Curriculum for Vocational Training of the Royal College of Family Doctors was extensively used as a model in the development of this curriculum. Other curricula, such as the Irish Core Curriculum, were also consulted.

However, there are several important differences from the above curricula. The sources of information listed below were consulted to come up with \textbf{Maltese Health Care Priorities}:

- Local research data (including the above) about health, disease and health care
- Currently available Primary Care, Secondary Care and ancillary health services were considered to identify areas in need of improvement and health care inequalities
- Local health practices, protocols and policies were consulted
- New developments and trends in health care (especially in Primary Care) were duly considered

At this stage, the grass root experience and help of established family doctors was invaluable. When a clinical module was being written, the input from local GP and other experts in that particular field was solicited whenever possible.

Therefore, the curriculum has been given a local flavour as regards climate, socio-cultural factors, demographics, epidemiology of disease, models of health care, treatment options and rationing, available referral agencies and benefits, exciting new developments in family medicine, etc...

Many aspects of this curriculum are based on the SPTFM (2006). This valuable document had already specified the aims and objectives, organization of content management of the programme, teaching resources, teaching methods, formative and summative assessment. Therefore, the Curriculum Board had a lot of ground work ready, and we could focus on the educational philosophy, teaching strategies, content and its organization.

Each clinical module contains sections on \textbf{Learning outcomes, Knowledge base, Psychomotor skills}, and recommended national and international
Relevant Guidelines to facilitate studying for the trainees. The sections on Teaching and Learning Resources and Formative Assessment should be found useful by trainees, trainers and coordinators.

Effort has been made to minimise repetition within this curriculum, but a certain degree of overlap between sections was unavoidable.

The Curricular Cycle (adapted from Harden and McEvoy)\textsuperscript{13,16,17}

As the Curricular Cycle clearly demonstrates, the curriculum needs to undergo continuous evaluation and maintenance to remain relevant to the needs of the Specialist Training Programme and all the stakeholders. It is envisaged that a revalidation of the curriculum be carried out at least once every three years.
References:

Chapter 2.
Educational Philosophy:

Author: Dr Daniel Sammut MD MMCFD

- Humans are complex beings with physical, psychological and spiritual dimensions, who have unlimited potential and various resources.

- The aetiology of most medical conditions remains idiopathic, and most of the time doctors only supply symptomatic or supportive care, not cure.

- All illnesses have a natural history, and the family doctor needs to be familiar with both the non-specific prodromal stages and the florid manifestations of disease.

- The family doctor should form a therapeutic alliance with the patient in order to facilitate the latter’s resourcefulness in finding ways to return to good health. In the process, the patients’ autonomy needs to be preserved at all times.

- The consultation is the cornerstone of general practice. It fosters the therapeutic relationship between patient and his/her doctor, and when conducted properly it is a valuable diagnostic and therapeutic asset.

- All disease has a triple impact on the individual: biological; psychological and social. The doctor needs to address all three aspects in diagnosis and management to achieve the best outcome.

- Patients confide in and trust their doctor in situations when they are most vulnerable. This places the doctor in a position of power and great responsibility. Therefore, the teaching of values, attitudes and ethics is given high priority in this curriculum.

- No person is omniscient or infallible. An awareness of one’s own limits and vulnerability is essential for good practice.

- Medical knowledge is continuously evolving. Only the lifelong learner can keep abreast of changes and provide evidence-based medicine.

Reference document used as a model:
Chapter 3.
Definition of the Discipline and Specialty of General Practice/Family Medicine

Author: Dr Daniel Sammut MD MMCFD

The European definition of the Discipline and Specialty of General Practice/Family Medicine (WONCA Europe 2002) states that:

“General Practice is an academic and scientific discipline, and a clinical specialty with its own educational content, research and evidence base and clinical activity, orientated to primary care.”

Malta College of Family Doctors (STPFM) embraces the European definition, which defines general practice as follows:

“General Practitioners/family doctors are specialist physicians trained in the principles of the discipline. They are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community and their culture, always respecting the autonomy of their patients. They recognise they will also have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilising the knowledge and trust engendered by repeated contacts. General Practitioners/family physicians exercise their professional role by promoting health, preventing disease and providing cure, care, or palliation. This is done either directly or through services of others according to the health needs and resources available within the community they serve, assisting patients where necessary in accessing these services. They must take the responsibility for developing and maintaining their skills, personal balance and values as a basis for effective and safe care.”

Therefore family medicine is a science as well as an art, and the general practitioner needs to develop both facets of the discipline and be able to mix
these ingredients together in varying proportions whilst he/she goes about his/her everyday work.

References:

Chapter 4.
Aims and Objectives of the Curriculum

Author: Dr Daniel Sammut MD MMCFD

The aim of this curriculum, expressed very concisely, is to produce ‘good’ family doctors. These ‘good’ qualities should be evident to: the general practitioner himself; his patients; his family; his peers; other health care professionals; and to society at large.

The WONCA 2002 definition of general practice goes on to specify the core competencies that are essential to the family doctor, irrespective of the health care system in which they are applied. The complex but characteristic interrelationship of core competencies, implementation areas and fundamental features (Heryman, 2004; WONCA Europe 2002) guides and is reflected in the definition of teaching agenda, together with the agendas for research and quality improvement. (STPFM)

A. Core Competencies

1. Primary care management
Includes the ability:
   o To manage primary contact with patients, dealing with unselected problems
   o To cover the full range of health conditions
   o To coordinate care with other professionals in primary care and with other specialists
   o To master effective and appropriate care provision and health service utilisation
   o To make available to the patient the appropriate services within the health care system
   o To act as advocate for the patient

2. Person-centred care
Includes the ability:
   o To adopt a person-centred approach in dealing with patients and their problems, in the context of patient’s circumstances
   o To use the general practice consultation to bring about an effective doctor–patient relationship, with respect for the patient’s autonomy
To communicate, to set priorities and to act in partnership
To provide long-term continuity of care as determined by the needs of the patient, referring to continuing and coordinated care management

3. **Specific problem-solving skills**
Includes the ability:
- To relate specific decision-making processes to the prevalence and incidence of illness in the community
- To selectively gather and interpret information from history-taking, physical examination and investigations, and apply it to an appropriate management plan in collaboration with the patient
- To adopt appropriate working principles (e.g. incremental investigation, using time as a tool) and to tolerate uncertainty
- To intervene urgently when necessary
- To manage conditions that may present early and in an undifferentiated way
- To make effective and efficient use of diagnostic and therapeutic interventions

4. **Comprehensive approach**
Includes the ability:
- To manage simultaneously multiple complaints and pathologies, both acute and chronic health problems
- To promote health and wellbeing by applying health promotion and disease prevention strategies appropriately
- To manage and coordinate health promotion, prevention, cure, care, rehabilitation and palliation

5. **Community orientation**
Includes the ability:
- To reconcile the health needs of individual patients and the health needs of the community in which they live, balancing these with available resources

6. **Holistic modelling**
Includes the ability:
- To use bio-psycho-social models, taking into account cultural and existential dimensions

**B. Implementation Areas related to Competencies:**

To practice the specialty, the competent practitioner should implement these competencies in three important areas:

1. **Daily clinical tasks**
manage the broad field of complaints, problems and diseases as they are presented;
- master long-term management and follow-up;
- balance evidence and experience in an effective way.

2. Communication with patients
- structure the consultation properly;
- provide information that is easily understood and to explain procedures and findings;
- deal adequately with different emotions.

3. Management of the practice
- provide appropriate accessibility and availability to the patients;
- organize, equip and financially manage the practice, and collaborate with the practice team;
- cooperate with the other primary care staff and with other specialists

C. Fundamental Features related to Competencies

As a person-centred scientific discipline, three background features should be considered as fundamental for the family doctor:

1. Contextual
- use the context of the person, the family, the community, and their culture in diagnosis, decision-making and management planning;
- show personal interest in the patient and his environment and be aware of the possible consequences of disease for the family members and the wider environment (including working environment) of the patient.

2. Attitudinal
- based on the awareness of one’s own capabilities and values;
- identifying ethical aspects of clinical practice (prevention/ diagnostics / therapy/ factors influencing lifestyles);
- justifying and clarifying personal ethics;
- being aware of the mutual interaction of work and private life and striving for a good balance between them.

3. Scientific
- being familiar with the general principles, methods, concepts of scientific research, and the fundamentals of statistics (incidence, prevalence, predicted value etc.);
- having a thorough knowledge of the scientific backgrounds of pathology, symptoms and diagnosis, therapy and prognosis, epidemiology, decision theory, theories of the forming of hypotheses and problem-solving, preventive health care;
- being able to access, read and assess medical literature critically;
- adopting a critical and research-based approach to practice and maintaining this through continuing learning and quality improvement.

**Hospital-based Training**

The following general competencies are to be acquired during hospital attachments.

**Clinical Content:**

- Opportunity for more detailed investigation and more sophisticated management than possible in family practice
- Reinforcement of clinical experience gained during internship
- Increasing responsibility for care through experience and confidence gained under supervision
- Refinement of clinical skills of history-taking and examination, discrimination in the use of further investigations, familiarity with the use of various drugs and their side-effects
- Appropriate experience of both in-patient and out-patient settings
- As members of the hospital team, understanding of roles and relationships of professionals involved
- Knowledge of life-threatening diseases, their complications and consequences
- Practical experience in a range of management decisions
- Insights into the primary care – secondary care interface
- Exposure to and experience of serious morbidity

The objective of hospital-based training is for the trainee in Family Medicine to learn some of the knowledge, routines, methods and fundamental techniques which are specific to the hospital speciality in question and in which training cannot be conducted in family practice (Standing Committee of European Doctors, 1991). During this period, the trainee is provided with:

- training in the speciality’s approach, examination, and treatment routines (also during out-of-hours exposure) as well as in guidelines for continued treatment and follow-up of discharged patients;
- precise knowledge of the illnesses that are common in that speciality and of the symptoms of diseases which, although less common, are nevertheless important;
- training in problem formulation of the specialities and in the working methods to ensure that the trainee will be equipped as a family doctor to keep his/her knowledge up-to-date and communicate with other specialist colleagues.²

Hence, the specialist training programme has the objective of providing guidance and support to the trainee throughout his/her educational journey to help him/her
achieve all the above competencies by the end of his/her training. This
curriculum, in turn, aims to provide a point of reference and a blueprint this
complex ongoing activity. Specific learning outcomes related to the above
competencies are further developed in detailed modules of this curriculum.

References:

   Medicine. Electronic source: http://www.euract.org/pap04107.html (last
   accessed May 2008)
   Training Programme in Family Medicine-Malta ver.5: Malta College of
   Family Doctors
   Academy of Teachers of General Practice/Family Medicine (EURACT).
Chapter 5.
Definition of ‘Learning Outcomes’

Author: Dr Daniel Sammut MD MMCFD

In order to allow for the actual teaching and assessment of the core competencies stated above, these must be defined in terms of practical learning outcomes.

‘Learning outcomes’ or ‘goals’ present a means of defining in detail what one might expect a trainee to be able to do as a result of a particular experience or learning event.

Typically, a learning outcome contains a verb that states what a learner should be able to do, say, explain or perform at the end of the learning event, session or programme. Learning outcomes can clearly define knowledge, skills or attitudes to be achieved.

Furthermore, it is important to be precise in defining the level of attainment that the trainee should achieve to ensure no ambiguity in interpretation between different hospital and community based teachers. Thus, the curriculum board have chosen an approach whereby learning outcomes define both what trainees should be able to do, and also to what level or extent.

References:

Chapter 6.
Organisation of the Curricular Content

Author: Dr Daniel Sammut MD MMCFD

The Specialist GP Training programme constitutes an educational journey wherein the trainee systematically gains new knowledge, learns new skills, and questions his/her attitudes relating to his/her career.

The curriculum provides a map for the trainees and trainers to follow, a menu for picking up important learning points, and also a checklist to ensure that indispensable wealth is gleaned throughout the three years of the course.

In the traditional curriculum model, teaching was fragmented into separate modules/sections that exist almost in a vacuum, bearing only loose relationships to one another. The student had to amalgamate these separate blocks of knowledge for him/herself, so as to synthesize a coherent whole.

In the integrated curriculum model, the teacher takes the responsibility of linking the subjects together. The integration could be horizontal, as when it is between parallel subjects e.g. cardiovascular and respiratory disease. Vertical integration occurs between subjects at different phases of the curriculum, such as the integration between paediatrics, disease prevention and screening, legal minimum immunization, bioethics and practice management. The integration should ideally be both vertical and horizontal, in a system and problem-based approach.

This curriculum attempts to encourage a spiral approach to learning: i.e. starting with theory and simulated practice, proceeding to advanced theory and limited application to practice, and ending with advanced practical application and problem-solving. This model is compatible with principles of adult learning, because the trainee’s learning process is directly influenced by relevance of the content to the learner’ needs at a precise moment in time. Therefore, the same concepts in the curriculum are revisited more than once during the three year course, in ever increasing levels of complexity. Naturally, this process needs to be reflected in the teaching methods and their timing (see section on Teaching Methods).
The Timetable

The SPTFM clearly defines the timetable for the trainees during their three-year specialist training. Fifty percent of the time (i.e. one and a half years) is to be spent in each of the community-based (with GP trainer) and the hospital-based attachments. The latter will be in the specialities listed below:

<table>
<thead>
<tr>
<th>Minor Hospital Speciality (part-time)</th>
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<tbody>
<tr>
<td>Palliative Care</td>
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<tr>
<td>Ophthalmology</td>
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<tr>
<td>Otorhinolaryngology (ENT)</td>
</tr>
<tr>
<td>Psychiatry</td>
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<tr>
<td>Geriatrics</td>
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<tr>
<td>Dermatology &amp; Venereology</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Hospital Speciality (full-time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatrics</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology</td>
</tr>
<tr>
<td>Medicine</td>
</tr>
<tr>
<td>Accident &amp; Emergency (including Minor Surgery)</td>
</tr>
</tbody>
</table>
Therefore, the Timetable for each trainee shall be as follows:

<table>
<thead>
<tr>
<th>Duration</th>
<th>Attachment</th>
<th>Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 months</td>
<td>Family Medicine</td>
<td>full time</td>
</tr>
<tr>
<td>3 months</td>
<td>Major Hospital Speciality</td>
<td>full time</td>
</tr>
<tr>
<td>2 months</td>
<td>Family Medicine &amp; Minor Hospital Speciality</td>
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<td>3 months</td>
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<td>6 months</td>
<td>Family Medicine</td>
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Academically, the course has been divided into three phases, each lasting one year. These phases are based on the Inner Curriculum Model:  

**Phase 1: Acclimatization to Family Medicine, Theoretical Principles and Safety**

**Phase 2: Practical Application and Fostering Confidence**

**Phase 3: Problem-solving and Independence**

These phases are further described below.

In addition, the various ‘Clinical Modules’ (e.g. cardiovascular; geriatrics) should be spread throughout the three phases of the programme. To achieve the optimum educational outcome for the each trainee, the Clinical Modules should be timed to coincide with his/her relative hospital attachments, thus providing practice to consolidate theory.
### Clinical Modules in the Curriculum:

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<tr>
<th>Module</th>
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<tbody>
<tr>
<td>Applied Genetics</td>
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<tr>
<td>Paediatric and Adolescent Health</td>
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<td>Men’s Health</td>
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<td>Women's Health</td>
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<td>Geriatric Health</td>
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<td>Cardiovascular Problems</td>
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<td>Respiratory Problems</td>
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<td>Digestive Tract Problems</td>
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<td>Neurological Problems</td>
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<tr>
<td>Endocrine and Metabolic Problems</td>
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<tr>
<td>Rheumatology, Musculoskeletal &amp; Trauma Medicine</td>
</tr>
<tr>
<td>Renal and Urological Problems</td>
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<tr>
<td>Infectious Disease</td>
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<td>Haematology and Immunology</td>
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<tr>
<td>Emergencies</td>
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<tr>
<td>Sexual Health</td>
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<td>Mental Health Problems and Addiction</td>
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<td>ENT and Facial Problems</td>
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<tr>
<td>Eye Problems</td>
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<td>Skin Problems</td>
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</table>
Phase 1: Acclimatization to Family Medicine, Theoretical Principles and Safety

When the trainee is first exposed to family medicine, he/she will need an induction period so as to provide gradual acclimatization. It is recommended that he/she sits in the clinic with the GP trainer for the first couple of weeks, so as to be able to acquire a general overview of what general practice is all about.

In addition an induction kit should be supplied to the trainee early on. (see Chapter 8: Educational Resources).

The following Modules should be covered in the first year of the Specialist Training Programme:

- The Consultation
- Patient Safety
- Ethics, Medicine and the Law
- Evidence-based Practice
- Pharmacotherapeutics and Prescribing
- Chronic Disease Management
- Social Problems, Services and Benefits

The following skills were judged to be relevant to Family Medicine in Malta by both the trainees and their trainers and should be practiced or acquired during this initial phase: 4,5,6

Consultation Skills:
- Communication skills
- Physical examination of all systems in patients of any age/sex (inspection; palpation; percussion; auscultation; measurement)
- Special examinations: vaginal; rectal; otoscopy; ophthalmoscopy
- Mental state examination

Other Essential Skills:
- Medical record keeping
- Issuing a prescription (for ordinary and psychotropic drugs)
- Issuing a certificate of fitness to attend school/ work/ drive/ dive/ travel
- Issuing an sickness benefit certificate
- Issuing a death certificate
Phase 2: Practical Application and Gaining Confidence

The following Modules should be covered in the second year of the Specialist Training Programme:

- Teamwork, Leadership and Referral
- Disease Prevention and Screening
- Nutrition
- Occupational Medicine
- Information Management and Technology
- Research and Academic Activity

Skills

Here follows a list of other skills judged to be relevant to Family Medicine in Malta by both the trainees and their trainers. These skills should be acquired or practised throughout the three-year programme whenever the opportunity arises. However, both the trainees and their trainers should ensure that they are not omitted from the training.

Investigative Skills:

- Taking and interpreting HGT, PEFR, Dipstick urine analysis
- Taking Pap smear
- Taking swabs (nasal, rectal, cervical, skin)
- Taking skin scrapings
- Interpretation of plain x-rays
- Taking and interpreting ECG
- Using Doptone
- Performing and interpreting Spirometry

Interventional Skills:

- Injecting (s.c., i.m., i.v.); intravenous cannula and infusions
- First aid principles
- Bandaging/ splinting techniques;
- Wound and burn care; dressing principles
- Basic surgical techniques: aseptic technique; local anaesthesia; suturing; removal of sutures/ clips; incision and drainage of abscess; aspiration of cysts/ haematomas; nail trephining
- Foreign body removal from ear, eye, nose, throat, skin etc.
- Oxygen therapy and nebulized medication
- Catheterization
- Use of cautery/ cryotherapy
• BLS and AED
• Heimlich manoeuvre
• Neck immobilization
• Minor surgery: excision of skin lesions; ingrown toenail surgery
• Reduction of pulled elbow and dislocated finger
• Joint aspiration/ infiltration
• Ear syringing and aural toilet
• Nasal packing
• Subcutaneous implants

Other Recommended Skills:
• Adjusting warfarin dose to INR result
• Prescribing insulin regime
• Basic counselling skills
• Basic statistical skills
• Basic accounting skills
• Basic management skills
• Basic interviewing skills

Phase 3: Problem-solving and Independence

The following Modules should be covered in the third year of the Specialist Training Programme:

Transcultural Medicine
Complementary and Alternative Medicine
Palliative Care
Personal and Professional Development
Practice Management
Teaching, Mentoring and Supervision

Naturally, this scheme should be followed as closely as possible in one-to-one teaching with the GP trainer and also in the setting of topics for the Half-Day Release Course Programme. Planning these educational events will result in a systematic programme and makes it easier for the trainee to absorb new learning and integrate different topics into a significant whole that is Family Medicine.
References:


Chapter 7.
Educational Strategies

Author: Dr Daniel Sammut MD MMCFD

In the Specialist Training Programme, the trainees are attached to a certified GP trainer, who has the role of educational supervisor to the trainee. This one-to-one micro-teaching method promotes the development of a training relationship reminiscent of the traditional apprentice model, and has been proven to be effective. Each trainer will be responsible for only one trainee at a time. Ideally, the trainee shall be exposed to working in both the public and private primary care sector, so as to gain a wide experience of both of these complementary systems in Maltese family medicine.

Trainees will also experience group learning during the weekly Half-Day Release Course. This setting provides an ideal setting for interactive learning, teaching of and non-clinical knowledge, trainee involvement in teaching, journal clubs, teaching of attitudes and values, multidisciplinary learning, team work, and support groups.

Trainees shall have designated training posts throughout the whole course, and shall hold supernumerary hospital posts. It is vital that all stakeholders, teachers and staff should understand and respect the trainee’s status. Protected time for learning is of paramount importance throughout the whole programme.

Harden et al. identified six educational strategies (S.P.I.C.E.S. model) related to the curriculum:

i. Trainee-Centred Approach

The traditional teaching model was heavily teacher-centred. It was the teacher who used to decide the content of the course, and the mode and pace of delivery, and was not amenable to feedback from students. On the other hand, in the student-centered model, the trainee can decide, under the trainer’s guidance, what to learn, the mode of learning, the sequence and pace of learning, and the time of assessment. Every teaching episode is then subjected to evaluation by the trainee him/herself, with feedback being used to improve the process with time.

Teaching needs to be adapted to the trainee’s particular learning style. Learning styles are extremely important because stylistic mismatch between trainee and
trainer may lead to misinterpretation and disruption or distortion of the teaching relationship. The Learning Styles Questionnaire is useful to both the trainee and his trainer and can help to adapt teaching to the trainee.4

The trainer needs to be continuously aware of the educational needs of his/her trainee by the supervision of performance, video consultation analysis, the observation of verbal and non-verbal cues, the asking of sensitive probing questions, and formative assessment of the trainee with the trainee.

Once the trainee’s needs are identified, the skilled trainer should help him/her address them. This is achieved by providing sensitive feedback, and then offering either gentle challenge or support to the trainee as the situation demands. Since every trainee has individual strengths and weaknesses, the learning trajectory and the teaching content need to be negotiated between trainee and trainer.2

The teaching relationship between trainee and trainer is subject to normal interpersonal dynamics and can be used by the skilled trainer to assist training. Furthermore, this relationship evolves over time as the trainee’s educational needs change. The trainer must understand this process, respect it, and indeed expect it to occur.2

Trainee autonomy, self-awareness and self-learning are also encouraged, because adults are intrinsically self-educating.2 The use of the Logbook and portfolio-based learning epitomize this learning approach.1 Protected time, adequate resources (e.g. library; internet resources) and support (support groups; mentoring) are prerequisites of a trainee-centered curriculum.

**ii. Problem-Solving Approach**

Traditional teaching mainly used the information gathering, memorization, and imitation approach. The student learnt the fundamentals of each topic, moving ahead in a logical progression of concepts.

On the other hand, with problem-based learning, trainees learn through being challenged by real clinical problems. The purpose of this problem-based approach is to develop an integrated body of practical knowledge and problem-solving skills.

The trainer’s role here is not to provide easy answers, but only to facilitate the thought process in the trainee’s mind by reframing the terms of reference of the problem.

Other advantages of this approach are that it ensures that teaching is highly relevant to the learner at that precise point in time, and prepares the student for lifelong learning. Examples of problem-solving teaching include ‘difficult case’
discussion with the trainer, Case-Based Discussions, and learning points derived from real patient encounters and recorded in the Log Book.

**iii. Integrated and Multi-Disciplinary Teaching**

In the traditional system, teaching was fragmented into separate modules/sections that exist in a vacuum, bearing only a loose relationship to one another. The student had to amalgamate these separate blocks of knowledge for him/herself, so as to synthesize a coherent whole.

In the integrated system, the teacher takes the responsibility of linking the subjects together. The integration could be horizontal, as when it is between parallel subjects like cardiovascular and respiratory disease. Vertical integration occurs between subjects at different phases of the curriculum, such as the integration between paediatrics, disease prevention and screening, legal minimum immunization, bioethics and practice management. The integration should ideally be both vertical and horizontal, in a system and problem-based approach.

The advantages of the integrated approach are a reduction of the fragmentation of knowledge, increased student motivation, and promotion of staff collaboration. Traditional teaching has also been unidisciplinary. Doctors, dentists, nurses, pharmacists, physiotherapists and occupational therapists and other healthcare professionals in training used to be taught separate curricula, and had different educational philosophies and agendas. Teachers were comfortable in a discipline-based system, and this was less costly and less demanding.

However, when GP trainees are taught by other professionals (healthcare and non-healthcare e.g. managers), and are taught with other professionals (such as in the Half-Day Release Course), this leads to social interaction, cross-fertilization of ideas, acquisition of new skills, and interesting ethical debates. The inter-disciplinary approach requires that the participant learners and teachers have an open and tolerant approach and be ready to share experiences and decisions with other healthcare professionals. This fosters the development of a multidisciplinary mentality and a collaborative approach in future family doctors. It will also help diminish their isolation by making them feel part of a primary care team.

**iv. Community-Based / Hospital-Based Education**

Community-based education is obviously crucial in GP vocational training. Unique advantages of community-based education are that it provides community orientation, a holistic approach and a comprehensive approach to clinical situations. GP trainees feel ‘at home’ and are more motivated when working in the community.
50% of the time spent in training will be spent in hospital attachments. Hospital-based education provides focused and detailed instruction in the sphere of knowledge and skills of that particular speciality.¹

v. Electives Programme

Elective programs in a curriculum give trainees some flexibility in choosing their subjects. This model may be applicable to basic specialist GP training in the acquisition of special skills (such as insertion of intra-uterine devices), but is more pertinent to further training of established GPs who may wish to develop a special interest within the broad field of family medicine.

vi. Systematic Programme

In the systematic approach, a program is designed so that all the essential components of the course are clearly defined, including knowledge, skills, and attitudes. How and where this learning occurs is also pre-determined. The advantage of the systematic approach is that it utilizes resources to the maximum and avoids waste of time. However, it needs intensive planning and briefing of GP trainers and hospital-based teachers.

The Curriculum Board considers all the abovementioned educational principles to be the cornerstone of good quality vocational training, so an attempt has been made to weave them into the fabric of this curriculum.

References:

Chapter 8
Educational Resources

Author: Dr Daniel Sammut MD MMCFD

i. GP Trainers and Training Practices

It is recommended that all GPs should be given the opportunity to apply to be a trainer for specific training in general practice. Family doctors who want to become trainers should undergo an appropriate training course in teaching for GPs, under the auspices of recognised international teaching bodies such as the RCGP or EURACT, for quality assurance.

Selection of trainers and training practices should be coordinated by a Selection Committee (formed of a Chairman, the Coordinator/s of Specialist Training and representatives from the Trainers, Trainees, the MCFD and the Primary Health Care Department), follow clearly defined mechanisms and be based on a list of clearly defined criteria.2,3,4,5

A. Mechanisms of selection should include:

<table>
<thead>
<tr>
<th>TRAINERS</th>
<th>TRAINING PRACTICES</th>
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<tbody>
<tr>
<td>Assessment of the availability of the doctor, both from the point of view of his medical care of patients and also his educational responsibilities as a trainer</td>
<td>Practice visits (a pre-interview condition):</td>
</tr>
<tr>
<td>Consideration of the curriculum vitae</td>
<td>▪ clinical care</td>
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<tr>
<td>Personal interview</td>
<td>▪ practice culture</td>
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<tr>
<td>Evaluation of the practice</td>
<td>▪ learning environment</td>
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### B. Criteria for selection should include:

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<th>TRainers</th>
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<tr>
<td>A personal commitment to teaching and to keep updated on educational methodology by attending appropriate lectures and courses</td>
<td>Good Quality premises, equipment, library and IT facilities and other teaching aids</td>
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<tr>
<td>Practical teaching skills acquired through appropriate preparation, and certification as trainers by a recognized European College of Family Doctors</td>
<td>Well organized medical records</td>
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<tr>
<td>A high standard of clinical competence, practicing in the speciality for at least 5 years</td>
<td>Adequate number of patients and workload to ensure the gaining of experience by the trainee</td>
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<tr>
<td>A high professional qualification or equivalent as approved by the MCFD</td>
<td>Good quality health care team</td>
</tr>
<tr>
<td>The ability to communicate effectively</td>
<td>Effective practice management</td>
</tr>
<tr>
<td>Through active participation in CME, full accreditation in the speciality with a recognized European College of Family Doctors</td>
<td>Access to a full range of laboratory and imaging investigations</td>
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<tr>
<td>A commitment to quality assurance</td>
<td>Others (audit, research activities, continuity of care)</td>
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<tr>
<td>Adequate time in active family practice (at least two working days a week or equivalent time)</td>
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The Curriculum Board strongly recommends that a competent board be set up by the MCFD to visit all Training Practices (both in the public and private sectors) at least biannually to assess whether basic criteria are being met. Such a board would then make recommendations to the teaching practice itself and to the MCFD about suitability of certification and room for improvement.6

The Curriculum Board believes that continued educational training for Trainers is vital, and that the trainer’s group, the MCFD, the SAC and the PTCs should ensure its quality and regularity.7
ii. Hospital-based Training

Since the GP trainees will spend half of their time in hospital rotations, it is extremely important that in this setting:

- their posts are supernumerary at all times;
- their role as GP trainees is understood and respected;
- they are exposed to appropriate and relevant clinical content, with balance between service and educational needs; hospitalised and ambulatory patients and clinical support services;
- they are adequately supervised by named specialist teachers who are prepared and accredited;
- they have a written individualised educational plan (with input from GP trainer);
- they have protected time for learning:
  - daily: informal discussion of random/selected cases
  - weekly: formal tutorial e.g. journal club
- they are adequately supported in their learning needs;
- they are provided with clinical audit and final appraisal of continued learning needs;
- other educational resources are available e.g. postgraduate library.  

To ensure that these conditions are being satisfied, a number of certain safeguards should be in place (see Management of the Specialist Training Programme).

iii. Postgraduate Training Coordinator

The PTCs play a central role in the smooth running of the Programme. Besides being an organiser, the coordinator should be an educationalist, a professional and a practising doctor, and needs to make use of resources external to family medicine to facilitate the provision of a comprehensive scheme. The PTC should be a point of reference for the trainees, GP trainers and hospital trainers. The criteria for selection will be similar to the criteria for selection for trainers (see above).  

iv. Other Resources

From day one, the trainees will need an Induction Kit which should provide practical knowledge about:

- practice partners & other staff;
- telephone numbers;
- timetables/ rosters;
- paperwork (forms; prescription pads; certificates);
- GP bag contents and their stocking/maintenance (instruments; HGT and urinalysis sticks; drugs; syringes; forms);
- practice reference library;
- maps for house calls;
- locally available health services: public/private/NGOs
- medicines and formulations available in government and private pharmacies;
- relative cost of investigations, interventions and treatments;
- where to get sick benefit/death/disease notification certificates;
- prescriptions for free medicines;
- fee structure (in private practice).

During their training, the trainees are required to video record a number of consultations for critique, learning and formative assessment. They should be provided with technological facilities to record and view such consultations.

An internet-based e-portfolio would greatly facilitate and standardise the collation of information regarding formative assessment and periodic appraisals of the trainee, and make interpretation and use of this data easier.

The Primary Health Care Department provides the premises for the Half-Day Release Course, equipped with all necessary teaching aids. The same department also provides the premises for meetings of the Trainer’s Group.

The Curriculum Board strongly recommends that a Reference Library be made available to trainees and trainers, with ready access to:
- local journals (e.g. It-Tabib tal-Familja; The Maltese Medical Journal)
- international journals (e.g. InnovAiT - a journal for Associates in Training (AiT’s) of the RCGP; EJGP; BJGP; BMJ; NEJM)
- reference textbooks (e.g. The ABC Series: BMJ Books; The Oxford Textbook of Primary Medical Care, Oxford University Press)
- internet resources (preferably with an Athens Password).

References:

Chapter 9.
Teaching Methods

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC (ICGP)

‘To teach through harsh criticism embitters and encourages hardline defences. To teach with a passion for excellence promotes strength, wisdom and intellectual flexibility. To teach with empathy grows the spirit and soul of the learner in such a way that allows recognition of the joys of service, self-sacrifice, and accountability’. (Clark Denniston MD)

In attempt to best define appropriate and relevant teaching methods, we start by asking what it is that we want to teach and even more fundamentally what it is that we want from our GP trainees.

Tomorrow’s Doctors (GMC 1993) states that a doctor:
- Should show respect for patients and colleagues that encompasses without prejudice, diversity of background and opportunity, language and culture and a way of life
- Must have a recognition that a blend of scientific and humanitarian approaches is required, involving a critical approach to learning, open-mindedness, compassion and concern for the dignity of the patient

This curriculum strives to address and keep a good balance in imparting teaching and learning related to the two crucial dimensions of patient care, the scientific and technical (curing) and the socio-emotional (caring). No effort should be spared to provide a learning environment which promotes humane and compassionate behaviour, encouraging the delivery of a compassionate service. Compassion ultimately serves as one of the most important motivators and modulators of ethical behaviour.

‘Medicine is not only a science, it is also a healing art. It deals with the very processes of life, which must be understood before they may be guided.’ (Paracelsus)

Creating authentic relationships with patients brought about through patient-centred consultations, is central to being good doctors. Great emphasis is thus given to communication skills to enable trainees engage with their patients through effective therapeutic and compassionate dialogue and silences. ‘Education, like patient care is rooted in relationships.’ (Leach D. and Stevens P.)
This curriculum engages a variety of teaching methods to complement the differences in teaching and learning styles as well as to expose the trainee to a mix of teaching methods. Methods used encourage the GP trainee to direct his/her own learning and to develop self-awareness and critical thought. A facilitative and guiding role is the preferred method of teaching. The latter is non-hierarchical and is conducive to enriching the learning experience of all participants.

The learning experience is based in its majority in a clinical setting and emphasises the holistic dimension at all times. It utilises a variety of teaching methods appropriate to the learning opportunity and resources available. It also provides for opportunity for learning in real life settings and in all aspects of day to day work. The methods used aspire to be learner-centred, based on patient-centred consultations and embody the principles of adult learning. These principles are emphasized early on in the training period. Training should be enjoyable and above all stimulating. The learning environment and the relationship between trainees and their trainers are deemed to be as important as the learning outcomes. ‘It is the good rapports between the trainer and trainee that is conducive to effective teaching and facilitates the transfer of truly relevant learning material and substance.’ (Leach D. and Stevens D.)

Teaching embraces elements from the spiral, negotiated and process models as the educational strategy, with the trainer acting as a facilitator for the learning process. It encourages a dynamic process that is iterative and encourages self reflection. Every attempt is made to employ teaching strategies that are calibrated to learners identified needs. Through reflective practice, trainers can effectively respond to specific teaching contexts and the immediate learning needs of a given situation. ‘Reflection is the element that turns experience into learning’ (Arseneau R.)

GP trainees gradually assume more control over their educational needs as they move on in their training, and through role modelling, mentoring and support from their trainers, are enabled to use reflective and self directed learning as a key to life-long and autonomous learning.

This curriculum sets out, as a syllabus, the core knowledge, skills, and attitudes to be acquired by the end of the VT programme. This list is not exclusive and many learning opportunities are provided for the trainees to acquire additional skills over and above the core content defined.

The Postgraduate Training Coordinators will provide GP trainees with a copy of the Educational Portfolio for the STPFM. The portfolio includes a copy of the full list of the competencies that need to be mastered. It is the responsibility of trainees to maintain the portfolio and to record significant events. The competency list will form the basis for personal review of progress throughout the
programme. These portfolios will be developed so that they can provide career-long reflection and learning.

A learning 'contract' specifying learning objectives will be agreed with their GP trainer or Hospital-based Supervisor at the start of each post.

GP trainers will ensure that the core content is covered taking into account the needs, background, abilities and experience of the GP trainee. The trainee will record significant events, and a list of competencies mastered. This will form the basis for personal review of progress made throughout the STPFM.

The trainer will organise a tutorial per week during normal work hours over and above the time spent supervising or carrying out joint consultations. The GP trainer will also ensure that he/she is accessible to the GP trainee to discuss problems when required.

Delivery of training banks on the provision of a good learning environment, making for an enjoyable, stimulating, supportive and open rapport between trainer, trainees and other practice members. Awareness of the existing tensions between delivery of service and learning needs of the trainees is crucial in both hospital and community based settings. With the support of trainers and supervisors, the identified learning objectives for any particular attachment should be met.

Crucial to all methods of teaching is the impact of role modelling as well as the trainers attitudes. These will underlie all teaching, and will deliver a strong message about the critical balancing and juggling of personal life and work. As role models, trainers greatly impact on their trainees, conveying to them a living template for professional behaviour. As Marinker states, 'It was not the curriculum which made us Doctors, it was our teachers.'

It is vital that the trainees in the STPFM take responsibility for their own learning and take advantage of all the learning opportunities presented within the daily work of each attachment. Trainees are encouraged to broaden their learning experiences through exposure to different learning environments. Such experiences may be provided by spending time in different practices with different tutors and other practice members. The best learning environment is one that provokes critical thinking as it challenges the trainee to reflect on the experiences and contexts they encounter. Ultimately, the curriculum experienced by the individual trainee will impact more on the trainee than the intended curriculum.

In the community, it is crucial that the trainee has the opportunity to witness family practice in various settings and circumstances. Ideally these would include:
• working both through regular and scheduled patient encounters as well during out of hours and assisting in emergencies (at home, scenes of accident, and treatment areas in the practice)
• assisting in the running of community clinics, e.g. Diabetes clinic, Well-woman and baby clinics, Immunisation clinics, etc.

In the ambulatory setting, focusing on making the distinction between cases warranting hospitalisation and those that may be treated by the GP in the community is important. It also offers the golden opportunity to broaden inter- and intra-professional learning skills, teamwork and liaising. It provides the relevant experience, enabling the trainee to have sufficient knowledge of the dynamics involved when patients need to be referred to hospital or are referred back for care in the community following hospitalisation or discharged from an outpatient clinic.

Learning opportunities will include the following:

**Observation and shadowing**

“To know virtue, observe the virtuous man” (Plato)

This can provide for significant learning not only with improving the knowledge and skills base, but also transmits strong value-laden messages which impact on personal attitudes and are crucial to establishing professional attitudes.

**Experiential learning opportunities**

“We don’t receive wisdom; we must discover it for ourselves after a journey that no one can take for us or spare us.” (Marcel Proust)

“A doctor must be a traveller…knowledge is experience” (Paracelsus)

Incremental responsibility delegated to the trainee, helps him/her feel increasingly competent and confident.

In the **community setting** this will include:
• supervised consultations, procedures and skills;
• discussions and feedback on video consultations;
• discussions following joint consultations;
• accompanied home visits.

In the **hospital setting** this will include:
• ward-based learning including teaching ward rounds. Ward rounds should be led by a consultant or a Senior Registrar but should be co-ordinated by the trainee. Feedback on clinical and decision making skills must be given and good patient care ensured by the senior members on the round. The ward round can also be used to direct future learning by highlighting areas where knowledge or understanding requires development.
• supervised consultations in out-patient clinics, day hospitals, community visits or other settings. Trainees should have the opportunity to assess
both new and follow-up patients and discuss cases with the clinical supervisor to allow feedback on communication and diagnostic skills, as well as the ability to plan investigations.

- in surgical and other specialities, theatre or investigation sessions offer practical opportunities for the understanding and/or acquisition of skills. Such events should be initially supervised and appropriate feedback given to ensure that the trainee can confidently master the relevant skills. This experience will make for future GP’s being confident in carrying out minor surgical procedures competently and safely.

One-to-one teaching
This method of teaching can be used to address individual trainee learning needs in the most direct way and caters to the required breadth and depth. This can include topics identified as a learning need, by either trainer or trainee. Such teaching can be centred on:

- review/ case presentation with selected notes, letters and summaries;
- discussing problem cases;
- video consultation analysis;
- directly observed procedures;
- significant event analysis.

Teaching on a one-to-one basis can also cater for teaching related to values such as professionalism and compassion. Observation of the GP trainee encounters with feedback from the trainer at the end, as well as case discussions, will particularly provide critical guidance on these important professional attributes. Provision of feedback and direction in a manner that inspires learners to self-evaluate is at the heart of formative evaluation. This will encourage the GP trainee to stretch limits and push out of the comfort zone, and thus motivate growth and development.

Small group learning opportunities
These may be organised by trainees and facilitated by trainer or a supervisor. This will also encourage trainee participation in any form of self initiated teaching presentations. Such opportunities may in turn serve as teaching and learning experiences catering for another group of trainees, or active participation of teaching events organised by the MCFD. Journal clubs have a special role in engaging groups of GP trainees, promoting exchange of ideas and knowledge that is perceived by them as highly relevant to their context and needs.

Half Day Release Course
This protected time is of critical importance for teaching and learning. It affords the opportunity to address learning needs identified both by trainers and trainees. It provides the trainees with the choice of topics, cases and skills to be discussed in greater depth as well as the freedom to choose style of delivery of teaching. It is an excellent opportunity to encourage learning from peers and to involve ‘patients as the teacher’.
Active involvement in group discussions is an important way for doctors to share their understanding and experiences. Small group sessions with or without trainer facilitation make for a balanced educational programme that does not rely solely on didactic forms of instruction. A supportive open atmosphere should be cultivated and questions and challenges welcomed. In the safe environment of the HDRC, open discussions and role play may be employed to deliver teaching.

**Peer-assisted learning and teaching**
Teaching can be organised by the trainees themselves. Peer-assisted learning utilises the knowledge base and experience that reinforces the trainees’ learning. It provides for an informal method of teaching and creates particular dynamics conducive to learning.
Aristotle’s dictum is as relevant today as ever ‘Teaching is the highest form of understanding.’

**Teaching by patients and carers**
Teaching the trainees to be culturally humble providers, requires less emphasis on knowledge acquisition and greater emphasis on fostering self-awareness, interpersonal sensitivity and an attitude to openness to learning from patients. Clinical competence is not possible to achieve without putting the patient at the centre of consultations and care.

It is thus a priority for trainees to master the art of communicating effectively with the patients they care for. Building a relationship is an ongoing task within and across encounters, it is the linchpin for a strong therapeutic relationship. Such rapports can only be built through practising listening attentively to patients’ stories, concerns and expectations. In short, they provide a lot of learning experiences and many an answer to how we can become better and effective doctors. Invoking the philosophy of Albert Schweitzer as an aspiration for today’s physician, ‘Be a good Doctor by being a good human being’.

**External courses**
This may including CME activities and other methods of formal training that the trainee may opt to undertake, eg. courses to help improve communication skills. Trainees are encouraged to pursue any such courses both locally and abroad which help stimulate and further their personal and professional development.

**Personal study/protected time**
Sufficient time away from work is required to allow, amongst others, the opportunity to further self-directed learning. This can materialise in various ways including reading books, journals and/or accessing the internet. Reflective learning is greatly encouraged through personal reflection on video recordings of consultations and the keeping of a reflective diary.
Simulated clinical situations
Apart from learning about the topic central to the chosen event, this can be used to impart teaching about teamwork and the relevance and importance of good communication skills.

Identification of role models
Trainees should be encouraged to identify high standards of behaviour in senior colleagues and emulate them. This could also be the subject of small group discussions on leadership skills. ‘The Future GP (1972)’ contained the statement ‘by questioning our thinking and our practice, the trainee makes us look at ourselves’. This statement is as pertinent today as it was 37 yrs ago.

Voluntary Work and Community Service Projects
Involvement in voluntary work with hospices, homes for the elderly, rehabilitation centres, refugee and shelter homes, and similar institutions is encouraged. These are ideal in providing the setting for highly relevant and emotive aspects of general practice and which the trainee can find greatly instructive.

Community service projects will provide the opportunity to address a broad range of leadership skills in the community. Trainees can work individually or in teams to design and participate in a community health service project. Such projects may be discussed with mentors who will help reflect on and share lessons learned. The process of this project is more important than the perceived success or otherwise of the project.

We believe that this element in the curriculum ‘promotes an altruistic commitment to a service that is critical to the development of compassionate, physician leaders’.

References:
- Leach D, Stevens D. “Substance, Form and Knowing the Difference”
Chapter 10.

Management of the Specialist Training Programme

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The Management of the Specialist Training Programme

The Specialist Training Programme in Family Medicine (STPFM) shall, unless stipulated differently by the Malta College of Family Doctors (MCFD) and the Specialist Accreditation Committee (SAC), be of a duration of 3 years. This programme involves training in both hospital and community settings, duration and timing of the various posts is as specified in Chapter 6: Organisation of the Curricular Content.

The Malta College of Family Doctors is the body responsible for the provision of the curriculum and an assessment programme for the STPFM. The Health Division provides the necessary funding for the Postgraduate Training Coordinators (PTCs) and GP trainers, as well as the financing of GP trainees during their training period. Ideally, training occurs in both the private and public health sectors and involves service delivery at the public hospitals, namely Mater Dei Hospital, Sir Paul Boffa Hospital, Mount Carmel Hospital and in the community at the Government Health Centres, Government District Clinics and privately run clinics in solo and group practices. The summative assessment process is the remit of the MCFD and the examination is funded by the Health Division.

Doctors wishing to enroll in this training programme as GP trainees and who graduated as a Doctor of Medicine prior to June 2009, must have successfully completed the 2 year internship programme subsequent to graduation. Doctors graduating after June 2009 must have successfully completed the 2 year Foundation programme.

Doctors wishing to become GP trainers must have good attributes for teaching, have successfully attended and completed an MCFD endorsed GP tutor’s course and fulfil criteria as stipulated in the call for application for GP trainers.

Calls for applications for prospective GP trainers and trainees shall be issued 3 months ahead of commencement of the training year, at regular intervals, and at least on an annual basis.

Following the selection of suitably qualified GP trainers and GP trainees eligible to undertake training in the STPFM, all trainees in the Programme will be allocated a GP trainer. Twinning of trainers to trainees is facilitated through a matching process. This is based on a preference ranking system by both trainee and trainers. According to their order of merit, prospective trainees have precedence in choosing a trainer who would accept them. To ensure transparency, this process is overseen by the Specialist Training Committee which is composed of the Postgraduate Training Coordinators and representatives of the Primary Health Department, the MCFD, the trainers and the trainees.
The role of the **GP trainer** is to ensure that the trainee’s educational programme is appropriate for his or her needs, and to undertake supervision and appraisal sessions with the trainee. GP trainers are obliged to maintain and improve their competencies in their personal and professional capacities and expected to participate both actively and passively in Continued Professional Development activities as organized by the MCFD. They are also responsible to participate in monthly meetings for trainers where amongst others they will evaluate the ongoing training programme and discuss any curricular problems encountered. Relevant feedback is then passed on to the curriculum board whereupon problems experienced will be discussed together and necessary modifications agreed upon and implemented. Furthermore, trainers are also obliged to organise and participate in ongoing training in medical education. This can take the form of formal and informal discussions, case presentations and hands-on practice on teaching and assessment techniques. Trainers are encouraged to further their personal and professional development and to keep abreast with novel teaching strategies. Trainers will be specifically trained to undertake appraisal.

The **Postgraduate Training Coordinators** shall:

- oversee the coordination of the different elements of the training programme,
- issue calls for application for GP trainers after the Public Services Commission has appointed a new cohort of GP trainees,
- coordinate the various attachments in the community and hospital settings,
- liaise with the GP trainers and Hospital Clinical Supervisors to ensure adequate progress is being made by the trainees in their various posts,
- coordinate the Half-Day Release Course,
- provide necessary support to the GP trainees in case of difficulties relating to the delivery of service impeding the attendance or participation in educational events which form part of the training programme,
- assist both GP trainers and trainees who disclose or are concerned about issues relating to poor educational progress or professional misconduct,
- monitor the training programme by performing regular evaluations of the hospital attachments, community attachments, and Half-Day Release Course, and giving feedback to all parties concerned.

The Postgraduate Training Coordinators will provide every doctor entering the Training Programme with a copy of the **GP Trainee Educational Portfolio**. These portfolios will be developed so that they can provide career-long reflection and learning and shall be used to record evidence of training. The portfolio is reviewed:

- jointly by the trainer and trainee on a continuing basis;
- by the trainee with the trainer/hospital clinical supervisor to inform the completion of the ‘Trainee Interim Review by GP Trainer’ and the ‘Hospital
Clinical Supervisor’s Report of GP Trainee’ required at the end of each training post;

- by the trainee and trainer in preparation for their completion of the ‘One-to-One Appraisal’ as part of the GP Trainee Annual Appraisal Report;
- by the Postgraduate Training Coordinators as part of the GP Trainee Annual Appraisal, using the form ‘Review of the GP Trainee Educational Portfolio’ to ensure that it includes a list of objective requirements approved by the Malta College of Family Doctors;
- at the end of the STPFM as part of the Summative Assessment.

It is the responsibility of the trainee to maintain the GP Trainee Educational Portfolio and to record significant events. The competency list will form the basis for personal review of progress throughout the Programme and provide the criteria for the annual appraisal. (See appendix 1). Apart from the planned appraisal meetings, clinicians and colleagues will always be in a position to provide feedback to the trainee. Feedback is of crucial importance to assist the trainee in maintaining progress and to help the trainee gauge how well he or she is developing the competences described in this document.

Trainees have the responsibility to work to achieve the competencies identified in the curriculum. They have the right to expect regular appraisal and assessment based on their performance in the work environment, as well as to be informed of their progress or otherwise.

At the start of a placement the trainee shall have an interview with the trainer or supervisor in the case of hospital attachments. At this interview, the trainer/supervisor and trainee shall jointly review the trainee’s learning portfolio and the specific educational opportunities offered in this placement, and agree on the educational objectives for the attachment. Towards the end of a placement, the trainee and trainer / hospital clinical supervisor will again meet for an appraisal discussion. The trainer/supervisor and the trainee will need to review the portfolio and also review the results of any assessments that have taken place during the placement. This interview is an opportunity for the appraiser to provide the trainee with feedback on his or her progress and to ensure that learning needs are being met and satisfactory progress is being made. The outcome of the appraisal discussion should be recorded in the trainee’s portfolio using the ‘Trainee Interim Review by GP Trainer’ and the ‘Hospital Clinical Supervisor’s Report of GP Trainee’ prepared at the end of each training post.

Appropriate supervision and guidance are essential to ensure safety for both GP trainee and their patients as well as to inform the appraisal and assessment processes. GP trainers should always be readily accessible to trainee, ideally working in the same practice and doing the same rotas. Adequate arrangements need to be in place for such supervision to be included in all aspects of training including delivery of out-of-hours work, home visits in the community and all hospital posts. Level of supervision should relate to competency level of
individual GP trainees and independent practice allowed once certain relevant competency levels have been mastered.

During the hospital attachment when the Educational Supervisor is not the GP trainer, a robust system of communication between the Clinical and Educational Supervisors shall be in place so that the appraiser is clear about how the trainee has been progressing. Continuous objective methods of reporting and feedback are important in ensuring that the GP trainee makes steady progress in all the visited posts. Educational supervisors shall ensure that trainees are exposed to the full spectrum of educational opportunities within an attachment. Close liaising between educational supervisors in hospital posts, Postgraduate Training Coordinators and the GP trainer shall be maintained throughout the training period. The GP Trainer is to maintain contact with the GP Trainee throughout the training period and is responsible for the GP Trainee even during hospital attachments. Mentoring during these periods should be also maintained.

One afternoon per week is to be dedicated to the Half-Day Release Course (HDRC). GP trainees shall be free from work commitments to enable them to participate in the HDRC. Tensions arising from delivery of service and attending to teaching events should be mediated by the PTCs and ideally sorted out in favour of the GP trainee attending the teaching event. Attendance at the HDRC is recorded and GP trainees must ensure participation in a minimum of 85% of sessions. Attending less than 85% of the HDRC sessions, constitutes a failing criterion in the annual appraisal. Topics covered during the HDRC shall include a core syllabus identified by the GP trainers together with educational supervisors and the PTCs, as well as topics selected by the GP trainees. Delivery of teaching shall be varied and encourage a multidisciplinary and self-directed approach to learning, involving the trainees, patients and their carers as tutors.

The Annual Appraisal is a ‘formative’ process and designed entirely for the benefit of the trainee. It is separate from the assessment. Its aims and objectives are to:

- Provide an opportunity for review
- Identify strengths and weaknesses
- Identify educational needs and provide opportunities
- Sets targets to be achieved by trainee

It is important that the discussion is open and deals not only with successes but also with areas where the trainee may have experienced difficulties. The annual appraisal report should be duly signed by trainee and trainer and forms part of the Annual Review. It shall include a self appraisal record, including objectives reached, training undertaken and courses undertaken. Trainers will be specifically trained to undertake appraisal to ensure that this very important process is carried out in conformity to established good practice and criteria, and to minimize as much as possible variability between appraisers.
MHEC Circular 26/2008 dated 22nd January 2008 has mandated that the annual appraisal of trainees be part of the process leading to the award of the Certificate of Specialist Training. As such, the Annual Appraisal also has a role as a yearly review which recommends the progress or otherwise of the GP Trainee to the next year of the three-year programme (or, in the case of the final year, as having satisfactorily completed or otherwise the annual appraisals and the educational portfolio as required for each year of the programme).

Assessment refers to the quality measures used to determine performance of an individual trainee. It measures achievement against the prescribed standards and informs the regulatory process that oversees the trainees’ career progress. Formative assessment is carried out throughout the training period. **Formative assessment** to be held regularly shall include:

- Analysis of recorded consultations
- Case-based discussions (CBD)
- Directly observed procedures (DOPS)
- Patient Satisfaction Questionnaire
- Multi-Source Feedback (360°)

Satisfactory assessment year by year (as based on the Annual Appraisal), together with a pass in the summative assessment will lead to the award of the certificate of completion of specialist training (CCST). Summative assessment, in its different methodologies, is conducted at the end of the three year period and, will determine, whether the trainee has achieved the identified professional and quality standards, thus also safeguarding statutory requirements. The assessment procedures to be followed in the STPFM will be as stipulated by the MCFD Assessment Board.

As stated above, the Annual Appraisal controls the onward progress of the trainees from one year to the other. This is done under the auspices of the PTC’s, and involves the submission of the GP Trainee Annual Appraisal Report comprising the One-to-One Appraisal and the GP Trainee Educational Portfolio. Submitted documents are checked by the PTCs. In case of problems indicated in the appraisal report, or in the event that the necessary documents are not presented or incompletely or incorrectly filled, then the PTCs will inform the GP trainee that s/he together with her/his GP trainer is required to attend the In-Programme Appeals Board. The areas of concern are pointed out by the PTCs in the presence of a member of the Curriculum and Assessment Boards respectively, and the trainee and trainer are given the opportunity to discuss the areas of concern. Depending on the degree of concern relating to the areas under question, appropriate time is given for the GP trainee to remedy her/his position. The GP trainee will not be allowed to move onto the subsequent year of training prior to having the portfolio in order, and is given 2 opportunities to appeal to the objections found by the PTCs to allow the GP trainee to progress in
the teaching programme. In case of an unsatisfactory third appeal, the trainee is recommended for dismissal from the programme.

Successful completion of the training programme entails that the GP Trainee secures all of the following:

- Fulfill to the satisfaction of the hospital clinical supervisor or GP trainer the necessary hospital and community attachments as indicated in STPFM;
- Fulfills the criteria of the Annual Appraisal at end of years 1, 2 and 3;
- A pass in the Summative Assessment at the end of the 3rd year of training.

Fulfillment of above criteria will earn the GP trainee the ‘Membership to the Malta College of Family Doctors’ (MMCFD) as well as a ‘Certificate of Completion of Specialist training’ (CCST). The newly qualified GP can then apply to the SAC to have his/her name listed on the Specialist Register as a ‘Specialist in Family Medicine’.

A list of candidates willing to act as mentors, shall be made available by the Postgraduate Training Coordinators. This shall include the names of those GP Trainers and Postgraduate Training Coordinators, as well as members outside the medical profession who are willing to formally provide mentoring for the GP Trainees. Formal approval of these individuals as mentors requires that the Postgraduate Training Coordinators ensure that they possess necessary qualities to enter into a mentoring relationship. The established criteria are to be approved by the MCFD.

**Performance monitoring** is shared by all the team participants involved in the STPFM. Monitoring is the gathering and recording of data about courses, trainers and trainees and is regularly carried out at institutional level. **Quality control** is the responsibility of the trainers. This will create a long term capacity for continual learning. It will elicit renewal without imposing any changes. It encourages all involved to change first in order to bring about the desired changes.

‘A genuine conviction that performance needs to be improved, is the indispensable first step in the process of quality assurance’ (Donabedian A.). A combination of methods, including guidelines, feedback, adherence to professional behaviour and continuing education, will reinforce self-directed efforts to ensure an effective quality assured training programme. It will also be supported by the balanced interaction between the external regulatory requirements (quality assurance) and the internal professional initiatives (quality management) by the coordinators.

**Evaluation** of the training process will be carried out at regular intervals, and specifically at the end of the 3 year training period. Evaluation uses data gathered in the monitoring process to place a value on the training programme. According to Edwards, evaluation seeks to ‘describe and explain experiences of
trainees and trainers and to make judgments and [interpret] their effectiveness.’ It will harness the input of feedback of as many stakeholders as possible, in attempt to verify the overall improvement and effectiveness or otherwise, of the training programme. The information thus obtained will permit modification of the curriculum in attempt to rectify any identified weaknesses.

References:

- The GP Trainee’s Annual Appraisal (2008): a document compiled by the Postgraduate Training Coordinators, the MCFD Assessment Board, and the MCFD Curriculum Board, in consultation with the GP Trainers and Trainees, and approved by the Malta College of Family Doctors (MCFD) on 25.11.08.
Section B

Key Features of Family Medicine
Chapter 11.

The Consultation

Author: Dr Philip Sciortino MD MSc MRCGP MMCFD

Date: 5th February, 2007

Reference Documents:

- RCGP Curriculum Statement No. 2 – The Consultation
- Calgary-Cambridge Guide to Teaching the Consultation
Introduction

Rationale

The consultation is at the heart of general practice. It is the central setting through which primary care is delivered, and where the curriculum outcomes detailed throughout these documents are demonstrated. The GP who lacks a clear understanding of what the consultation is, and how the successful consultation is achieved, will fail his/her patients.

Underpinning the outcomes below is a commitment to ‘patient-centred’ medicine. This term is often so loosely used that it often seems to mean little more than ‘good’. For the purposes of the curriculum, the patient-centred doctor can be said to have the following attributes:

1. An understanding of the wider context of the consultation. A perception of the patient as a person: a belief that the sick patient is not a broken machine, and that “health” and “illness” comprise more than the presence or absence of signs and symptoms. A constant willingness therefore to enter the patient’s lifeworld, and to see issues of health and illness from the patient’s perspective.

2. A recognition that patient centred medicine depends on an understanding of the structure of the consultation. Recognition in particular those good consultations are often associated with particular consultation styles and skills. However, the expectations and preferences of patients vary, such that the patient-centred doctor selects judiciously from a range of styles and skills.

3. A commitment to ethical, reflective attitudes which enable the doctor to understand and monitor his/her practice, and develop it to the benefit of patients.

Maltese health care priorities

The specific area of most immediate relevance for the consultation is that of communication skills, and by extension the consultation structure across which communication takes place.

Like many other aspects of life in Malta, the family unit is in transition. There are still closely knit traditional families who consult as a group e.g. adult son with mother; couples together; mother and kids with grandmother. The individual agenda and the intimacy of a consultation may suffer in these situations - on the part of the general practitioner this requires particular skills and awareness.
The Family Doctor must be able to consult equally effectively in Maltese and English as both are official languages.

Doctors may encounter a larger number of illiterate or semi-literate persons who require special communication skills using graphic representation and emphasis on the verbal element. These persons also have to rely on significant others for recall purposes.

The use of the telephone and particularly the mobile phone has its own drawbacks. Patients may have inordinate access to their family doctor over the phone particularly during clinic hours. Out of hours support over the phone is also an important area peculiar to local general practice.

Family Doctors are also for the first time seeing non-European families in large numbers. These ethnic minorities represent significant pockets of poverty at the margins of our society.

Most patients nowadays are informed: they follow the communication media and surf the internet for information about health. This can be a positive factor and can help to empower the patient. On the other hand, some information can be unreliable or misunderstood, causing inordinate anxiety. Some doctors may even feel threatened by the expert patient. The skilled GP should keep abreast with current health news, and know how to deal with these situations in a sensitive and non-paternalistic way.

Communication itself is recognised to be at the heart of good medicine. The Toronto Consensus Statement, which is still perhaps the most widely-known document, begins:

Effective communication between doctor and patient is a central clinical function that cannot be delegated.

This view has been reflected, and extended beyond the doctor-patient relationship, in a number of key statements. The General Medical Council’s document, Tomorrow’s doctors, states that the graduating medical student should be able to:

…communicate clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions

Similarly, for qualified doctors, the BMA argues that:

…communicative and interpersonal skills are technical skills which can be learned and the doctor who lacks them can be said to be lacking in technique, in the same way as the doctor who lacks clinical knowledge.

Statements about the importance of communication are best understood as ways of effectuating doctor-patient partnership, and promoting the openness and trust which is the lifeblood of partnership, and which enables the information sharing on which mutual decision-making depends. This shared decision making is an essential part of modern general practice.
Partnership between patient and healthcare professional is the way forward. The exchange and provision of information is at the core of an open and honest relationship between healthcare professionals and patients.

Learning Outcomes

The following learning objectives relate specifically to the management of the consultation. In order to demonstrate the core competencies in the area of the consultation, the GP trainee will demonstrate the ability to conduct patient-centred consultations. S/he will therefore:

1. Demonstrate an understanding of the context in which the consultation happens:

   With patients this means:
   - recognizing that patients are diverse: that their behaviour and attitudes vary for example by age, gender, ethnicity, social background, provider (public or private general practitioner) and as individuals, and therefore
   - responding flexibly to the needs and expectations of different individuals
   - understanding the process by which patients decide to consult, and how this can affect consulting outcomes
   - recognising the general practitioner’s roles and responsibilities toward the patient
   - negotiating a shared understanding of the problem and its management with the patient, so that they are empowered to look after their own health
   - demonstrating commitment to health promotion, while recognising the potential tension between this role and the patient’s agenda
   - managing the potential conflicts between personal health needs, evidence based practice, consumerist behaviour, entitled citizen behaviour and public health responsibilities
   - demonstrate effective skills for dealing with requests for unprofessional service
   - dealing with excessive familiarity or closeness with some of the patients who may be neighbours, friends, relations etc
   - managing the abusive patient. Patients who abuse the service, the profession and personal boundaries.
   - recognizing situations where patients of a different gender may not be prepared for intimate examinations.
With the patient's relatives, friends and supporters this means:

- recognising that episodes of illness may affect more than merely the patient
- understanding the patient's right to confidentiality especially in small communities.
- negotiating whether and how relatives and others might be involved
- engaging the family in some very traditional cultural situations

With other professional colleagues this means:

- working successfully as a member of the Primary Care Team
- working successfully with colleagues in secondary care and elsewhere
- working successfully with a range of other professionals such as Social Services
- in all cases, recognising that “working successfully” involves:
  - understanding the role of professional colleagues, and where their expertise lies
  - drawing on this expertise as appropriate
  - treating colleagues with consideration and respect
  - understanding inter-professional boundaries with regard to clinical responsibility and confidentiality
  - dealing professionally with doctor shopping patients and conflicting opinions or advice from several sources of care.

2. Demonstrate an understanding of the structure of the consultation:

- demonstrate familiarity with the common models of the consultation which have been proposed, and how these models can be used to reflect on previous consultations in order to shape future consulting behaviour.
- demonstrate therefore in consultation performance:
  - an awareness that consultations have a clinical, a psychological and a social component, with the relevance of each component varying from consultation to consultation (triaxial model of the consultation proposed by the RCGP and Doherty, Baird, Becker in 1987 )
  - an ability to deploy successfully the characteristics represented by the MMCFD assessment criteria
  - an ability to use techniques to limit consultation length when appropriate
recognise that achieving a successful overall structure involves appropriate use of communication skills, and therefore:

- demonstrating in consultation performance the appropriate use of the skills typically associated with good doctor-patient communication (e.g. Silverman et al., Maguire and Pitceathly)
- demonstrating in consultation performance an ability to adapt communication skills to meet patient needs
- demonstrate the ability to formulate appropriate diagnoses, rule out serious illness and manage clinical uncertainty
- demonstrate effective use of patient records (electronic or paper) during the consultation to facilitate high quality patient care that does not interfere with doctor patient communication.
- demonstrate effective use of time and resources during the consultation
- recognise how consultations conducted via remote media (telephone and e-mail) differ from face to face consultations, and demonstrate skills that can compensate for these differences.
- deal with interruptions during the consultations.

3. Demonstrate awareness that good consultation requires good professional attitudes

- demonstrate familiarity with basic concepts in medical ethics such as confidentiality, consent, resource allocation, and truth telling by
  - demonstrating an ability to reflect on how particular clinical decisions have been informed by these concepts
  - understanding the need to share information with patients in an honest and unbiased manner, in order to educate patients about their health (doctor as teacher)
  - identify those patients who do not wish to know the truth or can only handle part of it.
  - Ability to tell the truth in the appropriate socio-cultural and spiritual context according to the patient’s perspective
  - demonstrating ethically sound practice in consultation performance

- demonstrate an understanding of the importance of good professional behaviour, and how it is manifest in successful consultations, e.g. by:
  - demonstrating respect for patients, colleagues and others
• demonstrating good team-working skills: encouraging and assisting colleagues
• keeping accurate, legible and contemporaneous records
• making timely and appropriate referrals, using relevant information
• asking and expecting feedback from patients and other colleagues.
• good time keeping

• demonstrate an understanding of the importance of reflective practice for good consultation by:
  • recognising the limits of his/her abilities and expertise
  • undertaking self-appraisal through such things as reflective logs and video recordings of consultations, and seeking out opportunities for educational development based on this
  • recognising, monitoring and managing personal emotions arising from the consultation
  • recognising how personal emotions, lifestyle and ill health can affect consultation performance.

Teaching and learning resources

Work-based learning – in primary care
• Analysis of video recorded consultations
• Random case analysis of a selection of consultations
• Sitting in with GPs and other health care professionals in practice to observe different consulting styles
• GP trainer to sit in with registrar to give formative feedback
• Patients’ feedback on consultations using satisfaction questionnaires
• Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care
• Observation of consultations in the hospital setting
• Using Educational Portfolio to record learning points and reflections.
**Other learning opportunities**

- Courses / teaching using role-played consultations with ‘standardised patients’
- Peer group discussions and video analysis during vocational training scheme half-day release programmes

**Formative Assessment**

- Analysis of video recorded consultations (especially of challenging consultations)
- Patient satisfaction questionnaire
- Multi-source feedback.

**References:**


11. General Medical Council (2002) Tomorrow's Doctors: Recommendations on Undergraduate Medical Education. General Medical Council


Further reading:

- Neighbour R. The Inner Consultation. Lancaster: MTP 1987
- Stott NC, Davis RH (1979) The Exceptional Potential in each Primary Care Consultation. Journal of the Royal College of General Practitioners; 29: 201-5
Internet resources:

- The Balint Society website: http://www.balint.co.uk/home.html
- RCGP video workbook website:
  http://www.rcgp.org.uk/exam/videoworkbook/intro.asp
- Well Close Square website, consultation theory:
  http://www.pdptoolkit.co.uk/Files/wellclosetraining/wellcloseconsult/training
  /consult/consulta.htm
Chapter 12.

Patient Safety

Author: Dr Daniel Sammut MD MMCFD

Date: 15th October, 2008

Reference Document:

RCGP Curriculum Statement No. 3.2 – Patient Safety
Introduction

Rationale

‘Primum – non nocere’ is one of the basic tenets in medicine. Patient safety is a central issue for all health care workers, including family doctors, wherever they work. The GP’s work continually involves living with uncertainty and balancing benefits against risks. Therefore, doctors need to be skilled in risk assessment and management.

A patient safety incident (PSI) is defined as any unintended or unexpected incident that could have or did lead to harm to one or more patients receiving care. Medical errors can occur either by commission or through omission. Potentially avoidable patient safety incidents can have devastating consequences on patients, their family and the healthcare staff involved.

The following shocking statistics demonstrate the size of the problem:

- A study in Australia showed that 4% of all hospital admissions, with up to 30% in the elderly, were the direct result of a medication error.¹
- About 44,000-98,000 Americans die in hospitals each year as a result of medical errors. Iatrogenic accidents are the eight leading cause of death and the 6% of national health care expenditures (1996).²
- 7000 deaths from medication errors alone (US 1993).²

The reality is that most errors are made by good people with good training, skills, and intentions who inadvertently commit errors despite their best efforts because of an unfortunate confluence of individual, workplace, communication, technologic, psychological, and organizational factors.³ ⁴ Common causes of medical error include inexperience, knowledge deficiency, faulty judgement, hesitation, and fatigue. System flaws that increase the propensity to err include job overload, no time for breaks, hostile working environment, inefficient work practices, and breaks in concentration (e.g. telephone; noisy waiting room). PSIs are usually the result of a multistep and multifactorial failure in the delivery of service.⁵

The patient involved and his relatives have a right to know the truth about a safety incident. A ‘Complaints Procedure’ should be in place to ensure that the patient can voice his concerns and discuss the event with the staff involved. The latter should have protocols how to behave in this situation. In a group practice, a senior partner should act as an intermediary. ‘Critical incidents’ should then be utilized by the practice to hold significant event audits (SEA). These, in turn, can help the practice to learn lessons in patient safety, improve the service, and thereby prevent similar incidents in the future.
Open reporting and the ‘no blame’ approach to PSIs are relatively new concepts that should become entrenched in local medical practice across all levels. Doctors who make an error are frequently traumatized by the incident themselves, feeling guilt, shame, and lack of confidence. They need support from family and colleagues to overcome this difficult moment and be able to learn from their mistake.

The following system and personal attributes may contribute to the prevention of PSIs:

**System factors** include:
- favourable working conditions;
- reliable apparatus;
- impeccable medical records;
- printed prescriptions;
- reference books/online sources;
- accountability;
- management protocols;
- help from reliable ancillary staff.

**Personal attitudes** that make for a safe GP include:
- lifelong learning;
- good communication skills;
- good consulting and examination skills;
- patient-centredness;
- humility;
- willingness to change his/her mind;
- willingness to seek help or new information when necessary;
- efficient time management;
- self-awareness;
- taking care of oneself;
- stress management;
- cooperation with other members of the primary care team;
- readiness to delegate work to reliable staff.

**Maltese health care priorities**

A Maltese truism states that a doctor’s mistakes are buried along with his/her patients. This may reflect a perception of secrecy within the brotherhood of the medical profession – a perception that must change. A comprehensive culture of patient safety, accountability, openness, incident disclosure and transparency needs to grow roots into local family medicine.
Unfortunately, there is yet no local data on patient safety in family medicine. General practice is a complex activity, and the human element is bound to affect the outcome. To date, most GPs in Malta work in solo practice, have an intense schedule, are not backed by supportive staff and their record keeping is suboptimal. Family doctors see a large number of patients every day, and medical errors undoubtedly occur. A formal procedure should be in place to ensure that these unfortunate incidents are analyzed and used to prevent similar PSIs in the future.

Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in patient safety. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Describe how organisations and individuals can learn to be vigilant for PSIs. Participate in meetings run by the practice that illustrate how a practice can start to build and enhance a safety culture.

2. List the system factors and personal attributes of the GP that may help to minimize risk and error. Discuss examples how a change in behaviour and/or system can influence patient safety.

3. Describe the elements that contribute to an appropriate infrastructure for risk management, such as: policies that commit the organization to being open about serious incidents that involve permanent harm or death; policies that state the actions that staff should take following an incident; individual roles and accountability; the mechanism of investigation; support that should be given to patients, family and staff; staff training.

4. Be aware of the increased risk inherent in emergency visits and telephone consultations. Demonstrate an awareness of the limitations of own skills in risk management and readiness to take advice from more experienced colleagues.

5. Appreciate how some patient groups may be vulnerable to mishap by virtue of their particular characteristics, such as language, literacy, mental capacity, culture, and health beliefs.

6. Understand and respect the patient’ rights to safe treatment, openness, and follow-up. Tell patients and their families as soon as possible when incidents occur and do so fully, honestly and compassionately. Describe the basic concepts underlying the set up of a Complaints Procedure.
Communicate openly, listen and take patients’ concerns seriously. Be ready to apologise for any harm done and ensure that more care will be taken in the future.

7. Describe the criteria for when the primary care organisation should undertake a root cause analysis or significant event audit. These criteria should include all incidents that have led to permanent harm or death.

8. Contribute to regular significant event audit (SEA) meetings. Demonstrate the measures that the organisation takes to ensure that reports are dealt with fairly and that the appropriate learning and action takes place. Describe how to share lessons from the analysis of PSIs within the team, and how to implement change.

9. Participate in and write up a personal SEA from a patient seen during the general practice period of training, recording it in the Educational Portfolio.

10. Seek the help of other colleagues or provide support to them when a PSI occurs.

11. Appreciate how high quality multidisciplinary teamwork contributes to enhance patient safety.

12. Be aware of the existence of local providers of malpractice insurance, the duty of the insured doctor to inform them of a significant PSI, and the counsel that these entities may offer in situations where litigation is likely.
Teaching and learning resources

Work-based learning – in primary care

- Observation of the practice’s policies to protect patient safety, and the Complaints Procedure that allows the patient to voice his/her concerns
- Observation and participation in practice meetings related to patient safety, or involving a SEA, taking note of the interaction within a multidisciplinary team (where available)
- Tutorials on principles of risk assessment and management
- Random case analysis of consultations with a focus on patient safety
- Analysis of video recorded consultations with a patient safety agenda or related to follow-up of a PSI
- Using Educational Portfolio to record a personal SEA, with reflections and learning points.

Work-based learning – in secondary care

- Observation of SEA and Root-Cause Analysis meetings in secondary care, in a multidisciplinary setting
- Tutorials on principles of risk management in relation to secondary care (e.g. Accident and Emergency Department), where different criteria from family medicine are used
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Interactive half-day release programme sessions are an ideal group learning setting to explore concepts of patient safety, risk management, and management of patient complaints
- Private study of internet resources about patient safety and risk management e.g. www.npsa.nhs.uk/health/resources/7steps; www.saferhealthcare.org.uk
- Conferences and courses (both local and international) dealing with patient safety
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with nurses, midwives, pharmacists, physiotherapists, etc...
Formative Assessment

- Analysis of video recorded consultations with a patient safety agenda or related to follow-up of a PSI
- Analysis of a personal SEA in the Educational Portfolio
- Case-Based Discussion on consultations with a patient safety agenda
- Patient satisfaction questionnaire
- Multisource feedback.

References:


Reference Document used as a model:
Royal College of Family Doctors; 2007. Curriculum Statement No. 3.2 – Patient Safety

Internet resource:
Seven Steps to Patient Safety for Primary Care. The full reference guide (September 2005) is available at www.npsa.nhs.uk/health/resources/7steps
Chapter 13.

Ethics, Medicine and the Law

Author: Dr Daniel Sammut MD MMCFD

Date: 20th November, 2008

Reference Document:
RCGP Curriculum Statement No. 3.3 – Ethics
Introduction

Rationale

The Medical profession occupies a position of trust in society because of the understanding that a doctor’s calling is to serve humanity under all conditions and because in the past, members of the profession have built up a tradition of placing the needs of the patient above all else. General practitioners, in common with all health professionals, are expected to act in accordance with the ethical principles set out in their professional code of conduct. The Health Care Professions Act (2003) sets both minimum standards and limits of behaviour beyond which a practitioner must not go.¹

Since it is impossible for the law to specify all possible scenarios that may occur, doctors need to make decisions that require application and interpretation of this code and other guidelines issued by the Medical Council to the circumstances of particular cases or situations.² To do this they must be able to identify ethical issues arising in practice, evaluate the moral justification for different courses of action, and justify their decisions.

Each healthcare encounter is informed by facts: the patient’s history, examination findings, investigation results and evidence of effectiveness of treatment options. It is also informed by the values of all those involved in the encounter. These values include moral, cultural and aesthetic values, and are often implicit rather than explicitly articulated.

The paradigm shift towards patient-centred care has emphasized the importance of patient autonomy and informed consent. We have moved away from the traditional paternalistic approach, where the doctor knows best, towards a shared management plan. The doctor should be able to supply sufficient and intelligible information to the patient in order to allow the latter to consent or otherwise to a particular option.

While general practice has focused on personalised care to individual patients, family doctors should also consider the needs of society as a whole, particularly in public health programmes on disease prevention, screening and surveillance; in the rationing of available resources; and to ensure equity of health care provision. Thus wider societal values will also inform their behaviour and decisions.

Clinical ethics and values-based practice requires general practitioners to understand the ethical and legal framework within which they practice, to identify ethical issues that arise in their day-to-day practice, to recognize the relevant values of all those involved (including their own), and to demonstrate the moral reasoning on which their decisions are based. This will involve the development
of a range of skills and competences that is broader than traditionally associated with medical ethics. The knowledge and skills acquired are applicable across the whole curriculum and should be incorporated into all aspects of clinical, managerial and research practice.

Forensic medicine is an integral part of general practice. An example of this is the diagnosis and certification of death. Before issuing a death certificate, the GP needs to make sure that there is no reason to suspect foul play either from the history and physical examination. If foul play is suspected, it is crucial to involve the police and a 'levee du corp' report may be necessary. If the deceased had not consulted him/her recently, the doctor should be reluctant to issue a death certificate without requesting an autopsy to be carried out.

The family doctor is often called upon to examine victims of assault, describe traumatic lesions for medico-legal purposes, issue a medical report for the police, and eventually provide medical evidence in the Law Courts. For this reason, the GP should perform a sensitive and meticulous examination and ideally take photographs. The family doctor should know how to distinguish between what constitutes slight or grievous bodily harm. He/she should then make an accurate and detailed report, and keep personal records. In addition, he/she should be familiar with court protocol.

GPs should always be on the alert to identify cases of psychological, sexual and physical abuse. The reporting of suspected child abuse or neglect to Aġenzija Appoġġ and to the police is of paramount importance. Victims of rape should be promptly referred to secondary care for detailed investigation. The family doctor should always intervene to protect vulnerable individuals within the community and be able to manage an emotionally-charged situation wisely.

**Maltese health care priorities**

Since the Maltese Islands house a small close-knit community, the rules of confidentiality of patient information are of supreme importance. Professional secrecy should be kept at times except when compelled by law to disclose information (e.g. court witness; notification of infectious disease). Before revealing information to employers or insurance companies, the family doctor should first obtain the patient’s written consent. There are also implications for patient data protection with regard to unauthorized access to medical records.

Maltese doctors are often pressured by certain patients to issue false certificates for illness benefit, invalidity pension, non-attendance in court, school absence etc, etc. It is imperative that the profession shows a united front against such abusive practices, and that individual GPs uphold their principles in all
circumstances. In this way the image of the family doctor will remain untarnished in the eyes of the public.

The Maltese doctor is bound by duty and law to preserve human life from the moment of conception until death. Moreover, ‘a doctor shall not in any circumstances do, authorise to be done or condone, anything that would weaken the physical or mental resistance of a human being, except for the prevention and treatment of disease’.\(^3\) During the course of his/her work, the GP may be confronted with requests for abortion, the morning-after pill, and euthanasia. In these circumstances, he/she must abide by the law, but at the same time be sensitive to the feelings of the individuals involved.

The Medical Council has the role of prescribing and maintaining professional and ethical standards for the medical and dental professions. It issues guidelines for ethical conduct, has the power to investigate any reports of misconduct, and may decide (after due consideration) to caution or penalize, or even erase the name of any practitioner from the Medical Register of licensed doctors if found guilty.\(^5\) Therefore, GPs should carefully follow the professional rules of conduct, and be ready to report any misconduct on the part of a colleague.

The Medical Council also lays down rules for proper professional behaviour between doctors. These include the prohibition of advertising, canvassing, enticing of patients and slander. Undercutting and sharing of fees without the patient’s knowledge are also illegal.\(^5\)

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor’s role in relation to ethics, values-based practice and the law. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Recognise the ethical dimension of every healthcare encounter.

2. Explain the nature of values and how they impact on healthcare. Identify the values that patients, families, members of the healthcare team, and local culture bring to a specific healthcare decision.

3. Integrate knowledge of patients’ values with the relevant scientific evidence and clinical experience to achieve the best outcome for the patient.
4. Appreciate the importance of continuity of care and long-term relationships with patients and their families in identifying and understanding the values that influence a patient's approach to health care.

5. Demonstrate moral reasoning skills in the process of choosing an appropriate course of action or resolving conflicting values. Balance conflicting duties to individual patients who are members of the same family.

6. Demonstrate knowledge of the professional ethical guidelines issued by the Medical Council and the local legal framework within which healthcare decisions should be made.

7. Appreciate that patients' views and perspectives usually change through the course of a chronic or terminal disease and that co-morbidity or disease progression may affect decision-making capacity.

8. Demonstrate the knowledge, skills and attitudes for effective communication in eliciting and understanding the values of patients, negotiating an acceptable course of action and justifying that course of action.

9. Recognise his/her personal values/feelings/attitudes and how these influence decision-making. Clarify and justify personal ethics. Be aware of the interaction of work and private life, and the ethical tensions that this can create.

10. Respect patient autonomy through a holistic approach. Obtain meaningful consent from the patient to a management plan by seeing the patient as a unique person in a unique context.

11. Explain the concepts of beneficence, non-maleficence and justice.

12. Maintain professional secrecy at all times except when the patient consents or when obliged by law to disclose confidential information.

13. Readily refer the patient to other specialists, other health care professionals or other agencies whenever this is thought to be beneficial for the patient or his family.

14. Behave ethically towards colleagues and other professionals.

15. Identify potential ethical difficulties and develop proactive strategies to prevent or reduce the likelihood of conflict arising for themselves and for patients.
16. Recognise the ethical issues raised by public health programmes of disease prevention, screening and surveillance and develop appropriate approaches to their implementation.

17. Be aware of the obligation to use public resources in a prudent manner to benefit the whole community. Give morally relevant reasons for decisions that balance individual patient needs with the needs of the wider community.

18. Immediately involve the police in all suspected cases of violence and psychological, physical or sexual abuse. Notify Ħażenija Ħappoġġ when indicated.

19. Accurately describe the various lesions seen in forensic medicine.

20. Explain the difference between what constitutes slight or grievous bodily harm. Draw a detailed medical report for the police, keeping personal records. Be familiar with court protocol.

21. Refuse to issue a death certificate without an autopsy if foul play is suspected.

22. Explain the ethical principles that underpin the conduct of medical research. Be aware of the procedure for gaining ethics approval for research conducted in primary care.

23. Understand and respect the role of the Medical Council in regulating the profession.

**Relevant Guidelines**

Teaching and learning resources

Work-based learning – in primary care

- Observation of how values and ethics impact on general practice consultations and management. Practise in eliciting and analyzing the values brought by all parties involved, and work to resolve any conflicts arising. Clarifying and justifying personal values.
- Observation and participation in the sensitive handling of victims of assault, examining lesions, drawing up a report for the police, and witnessing in court. Reporting physical, sexual or psychological abuse to the police and Ħaġenzija Appoġġ.
- Tutorials on principles of ethics and medico-legal issues.
- Random case analysis of consultations with a focus on ethics and medico-legal issues.
- Analysis of video recorded consultations with a focus on ethics and medico-legal issues.
- Using Educational Portfolio to record reflections and learning points.

Work-based learning – in secondary care

- Observation of how values and ethics impact on hospital consultations and management. Practise in eliciting and analyzing the values brought by all parties involved, and work to resolve any conflicts arising. Clarifying and justifying personal values.
- Observation and participation in the sensitive handling of victims of assault, examining lesions, drawing up a report for the police, and witnessing in court. Reporting physical, sexual or psychological abuse to the police and Ħaġenzija Appoġġ.
- Tutorials on principles of ethics and medico-legal issues in relation to secondary care (e.g. Accident and Emergency Department; Paediatrics; Geriatrics).
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Interactive half-day release programme sessions are an ideal setting to explore concepts of ethics and medico-legal issues through group learning.
- Private study of Maltese Law and Medical Council guidelines, books, journals and internet resources
• Conferences and courses (both local and international) dealing with ethics.
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals such as bioethics experts, forensic doctors, nurses, advocates and the police.

Formative Assessment

• Analysis of video recorded consultations dealing with an ethical dilemma or medico-legal issue
• Analysis of the Educational Portfolio for values, ethics and medico-legal issues
• Case-Based Discussion on consultations dealing with an ethical dilemma or medico-legal issue
• Patient satisfaction questionnaire
• Multisource feedback.

References:

3. Laws of Malta: Criminal Code, Chapter 9, Articles 214-221:81-83 (June 1854)
4. Laws of Malta: Criminal Code, Chapter 9, Section 257

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 3.3 – Ethics
Further Reading:

- Toon P (1994) What is Good General Practice? London: Royal College of General Practitioners
Chapter 14.

Evidence-based Practice

Author: Dr Daniel Sammut MD MMCFD

Date: 30th November, 2008

Reference Document:

RCGP Curriculum Statement No. 3.5 – Evidence-based Practice
Introduction

Rationale

Evidence-based medicine has been defined as ‘the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients’.1

General practice is a scientific discipline and patients naturally expect to get the best available treatment, so family doctors must base their decision-making on best available evidence. Evidence-based health care means using scientific rigour to appraise evidence from a wide range of sources to best benefit the patient or delivery of health care. Family medicine is a speciality that is continuously fed a large amount of information from all medical fields put together, and the doctor may feel inundated by useless data. For this reason, the GP needs to develop knowledge of where and how to search for ‘best evidence’, and skills to appraise this evidence critically and decide whether it is applicable to a particular clinical context. General practitioners must be able to provide each patient with information appropriate to them and their individual circumstances in order to help their decision-making.

Since it was brought to prominence by Sackett and colleagues in the early 1990s, evidence-based medicine has developed through all parts of health care. This curriculum considers evidence-based practice to be of fundamental importance for today’s GP, and this concept is encountered throughout the sections of the curriculum.

As scientific evidence is in continuous evolution, lifelong learning is a prerequisite for a good doctor. He/she should use all available sources of medical information and make an effort to keep up with the latest developments in the field.

The Sicily statement states that curricula delivering the principles of evidence-based practice (EBP) should incorporate the necessary knowledge, skills and attitudes of EBP into training and registration requirements and follow the ‘five step model’.2

1. Translation of uncertainty into an answerable question
2. Systematic retrieval of best evidence available
3. Critical appraisal of evidence for validity, clinical relevance and applicability
4. Application of results in practice
Maltese health care priorities

Evidence-based practice must include the use of evidence in the discussion between practitioner and patient as well as the use of evidence in informing clinical judgment. One of the criticisms of evidence-based medicine in the primary care setting is that many of the data are from clinical trials based in secondary or tertiary care, carried out on highly selected patients according to strict exclusion criteria. Results from such trials may produce convincing evidence that is highly persuasive to both practitioners and patients making decisions about care. The impact of convincing results in controlled clinical trials may, however, be attenuated when the treatment or intervention is applied to a broader group of patients in a real primary care setting, where multiple pathology may be common and adherence to treatment regimens is less than in a controlled trial. An honest assessment of how well the intervention will work in the reality of primary care will be more relevant to the patient considering treatment.

The hierarchy of evidence currently used in evidence-based medicine may cause further problems. Randomised controlled trials (RCTs) are seen as the gold standard for evidence in health care. Other research methods such as observational studies and qualitative research carry less weight when evidence is evaluated to inform individual practice or guidelines. RCTs trials are often inappropriate, however, for answering research questions in primary care. The complexity of disease presentation and management interventions in primary care means that it may not be feasible to conduct a high quality RCT for many conditions. Most RCTs use outcome measures that have been designed to be easily quantifiable and amenable to statistical analysis. This is so even when more patient relevant outcome measures such as disability scales and quality of life measurements are used. Qualitative research that informs the development of RCTs or provides an alternative or complementary approach to answering the specific research question is becoming recognised as a valuable component of research in primary care.

Presentation of headline results without interpretation, or provision of complex statistical information, can result in confusion or lack of understanding on the part of both practitioners and patients. The use of relative rather than absolute risk reductions in reporting research results may mislead patients (and doctors) if it is not placed in the context of their current level of risk. A ‘number-needed to treat’ approach may be more helpful in practice.

Evidence-based medicine should contribute to patient-centred care but not override it. If biomedical research evidence takes its place with other forms of evidence such as patient experience and clinical judgment, patient autonomy should be enhanced. There is a danger, however, that in their enthusiasm for evidence-based medicine clinicians may replace the paternalistic mantra of ‘doctor knows best’ with the paternalistic mantra of ‘the evidence knows best’.
We have so far assumed that the enhancement of patient autonomy by the appropriate use of evidence-based medicine in the provision of information to patients is a good thing. An interesting consequence of empowering patients to make their own health care decisions, or to actively share in the decision-making process, is that patients will then have some responsibility for the consequences of their decisions. All research findings have an element of uncertainty in terms of their application to individual patients. A success rate of 70% for a treatment means a failure rate of 30%. In making a decision to try a particular treatment one accepts that the treatment may fail and that there may be side effects. If patients expect and are expected to make these decisions, then the burden of responsibility for accepting the uncertainty will also fall on them. It is unclear whether the transfer of this uncertainty from clinician to patient will be of benefit or harm.

Medical research, particularly the gold standard/RCT, is much more common in the area of drug interventions, partly because the pharmaceutical industry is a major source of research funding. Other interventions, including the more complex interventions often required in primary care, are less likely to have received the attention of well funded research, and thus less likely to have robust evidence of clinical and cost effectiveness. If Primary Care Organisations prioritise allocation of resources to those interventions that are supported by good quality evidence, some groups of patients will be disadvantaged. Implementation of evidence-based medicine is aimed at individual clinical decision-making or service provision at a population level for specific diseases. It does not address inequities in health status resulting from factors other than disease, such as ethnicity and social class. It is possible that inequity could be increased by implementation of evidence-based medicine if these more complex determinants of health are not considered.

Another possible type of bias is publication bias. Here, authors whose studies may show unpopular or negative findings may be refused publication by the editors of a journal. Negative results are as important as positive ones, and lack of publication may lead to an incomplete picture.

To date, there are very few local clinical guidelines for the Maltese family doctor. The Curriculum Board has attempted to identify guidelines that are drawn up by respectable international bodies and are updated regularly. These guidelines are included in each section of this curriculum to provide guidance for the trainee.
Learning Outcomes

The following learning objectives relate specifically to the abilities of the family doctor to provide evidence-based health care. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Demonstrate that they base their treatment and referral decisions on best available evidence.

2. Demonstrate sufficient knowledge of the breadth of scientific evidence in order to provide the best information for the individual and his or her illness.

3. Demonstrate awareness that evidence-based practice is in its infancy and for many decisions there are more unknowns than certainties.

4. Ask the ‘right question’: SMART (specific, measurable, relevant, achievable, time-limited).

5. Find the appropriate literature from the widest available sources, rather than from the most readily available.

6. Apply rigour in appraising the literature to decide whether evidence is of good quality, is applicable to the primary care setting and appropriate to the individual. Demonstrate awareness that most evidence used in primary care is produced from studies that don’t include quality of life measures.

7. Place the answers in the appropriate context.

8. Use knowledge of the ‘best possible evidence’ to inform a patient of the ‘best possible’ way to navigate the healthcare system.

9. Communicate risks and benefits in a way that is meaningful to patients.

10. Demonstrate an understanding of how the doctor–patient relationship can be used to reconcile the patient’s personal objectives (which are values driven) and solutions to medical problems (which are value neutral). Demonstrate the skills to offer patients health choices based on evidence: with prioritisation based on the patient’s values and motivation.

11. Appreciate that the efficacy of evidence-based interventions depends on concordance with agreed therapeutic aims. Demonstrate an
understanding of the opportunities offered by continuity of care and how a
long-term relationship can be used to enhance evidence-based interventions.

12. Understand the limitations of evidence in patients with chronic disease in
primary care: there are no agreed definitions for chronic disease (e.g.
asthma, heart failure, hypercholesterolaemia, depression), which makes
applying best practice complex especially as GPs frequently deal with mild
disease (e.g. When does someone become asthmatic? With a history of
night cough? With a once-in-a lifetime salbutamol inhaler or with an
exercise challenge? Where is the cut-off?)

13. Appreciate that, with no agreed definitions, there are implications for the
collection of epidemiological data for audit.

14. Demonstrate an understanding that most of the evidence used comes
from studies that exclude patients with significant co-morbidity (co-
morbidity is a common reason for exclusion from RCTs and exclusion is
not always justified).

15. Recognise that a combination of evidence-based treatments is not always
evidence-based in itself. Interactions between single interventions may
increase or decrease efficacy.

16. Recognise that the majority of evidence-based guidelines do not include
ethnicity or socioeconomic status as risk factors, whereas in reality they
are.

17. Demonstrate awareness of their own attitudes, values, professional
capabilities and ethics, so that, through the process of reflective and
critical appraisal, they are not overwhelmed by personal issues and gaps
in knowledge.

18. Demonstrate knowledge of leadership, communication and management
skills so as to instigate change in practice effectively.

19. Design and initiate appropriate evaluation through research or audit.
Knowledge Base

The architecture of health research (and its application to family practice):
- What is research? How can it inform practice?
- Quantitative research: observational, controlled trials, cohort studies, case studies, etc.
- Qualitative research: case studies, phenomenology, grounded theory, ethnography, meta-ethnography, discourse analysis and narrative methodology
- Evaluation and action research: design and integration of multiple methodologies
- Research in the management of change: using evidence from within and outside health care.

What makes a good piece of research?
- Revision of basic statistics (correlation, standard deviation, confidence interval, statistical significance, absolute risk, relative risk, number-needed-to-treat, sensitivity, specificity)
- Defining narrative review and meta-analysis.
- Introduction to parametric and non-parametric statistics: a guide to why these are used. A look at diagnostic and screening statistics.
- Relevance of research to practice: is the right question being answered? Is it relevant to the patient in front of you?
- Critical reading: developing a framework to assess and understand research papers efficiently.

Finding the research:
- How to ask the right questions (SMART)
- Using multiple databases
- Evaluation of reviews (journal and web-based)
- What makes a good review or summary article on a subject?

Putting research into practice:
- Designing your own studies: understanding research ethics, application of appropriate statistics, appreciation of the importance of negative results
- Audits: using research to set standards and implement changes
- Evaluating your research: was it worth it and does it work?
- Understanding pharmaceutical marketing and the necessity for a critical review of the information presented by medical representatives.
- Research ethics and the philosophy behind these (Research Ethics Committee).
Change management:
- How can you integrate your findings so that they are most useful for the patient, his or her family and the team?
- Team dynamics and implementation: how to develop a change in practice and user-friendly guidelines, developing a team approach to implementation and policy
- How to implement changes outside the immediate organisation: looking at the wider NHS; good and less good examples; national strategies
- Budgeting for change management: time and financial considerations.

Teaching and learning resources

Work-based learning – in primary care
- Observation and practice of the experiential learning cycle to develop good practice including formulation of SMART practice-based questions, research, critical appraisal of best available evidence, implementation of change, and audit.
- Tutorials on principles of evidence-based medicine.
- Random case analysis of consultations with a focus on the evidence behind clinical decisions.
- Analysis of video recorded consultations with a focus on the evidence behind clinical decisions and its discussion with the patient.
- Using Educational Portfolio to record reflections and learning points.

Work-based learning – in secondary care
- Observation and practice of the experiential learning cycle to develop good practice including formulation of SMART practice-based questions, research, critical appraisal of best available evidence, implementation of change, and audit.
- Tutorials on principles of evidence-based medicine.
- Active participation in journal clubs.
- Using Educational Portfolio to record reflections and learning points.

Other learning opportunities
- Interactive half-day release programme sessions are an ideal group learning setting to explore concepts of evidence-based practice.
- Active participation in journal clubs is encouraged.
• Private study of internet resources about evidence-based practice e.g. http://www.phru.nhs.uk/casp/casp.htm

• Conferences and courses (both local and international) dealing with evidence-based practice.

• Informal discussions with trainer and peers

• Learning opportunities with other health care professionals e.g. seminars with statisticians, other medical specialists, nurses, pharmacists, etc...

**Formative Assessment**

• Analysis of video recorded consultations to observe discussion of relevant evidence with the patient and negotiation of a management plan

• Critical appraisal of a scientific paper

• Analysis of the Educational Portfolio for evidence-based learning

• Case-Based Discussion on consultations with a focus on the evidence behind clinical decisions and its discussion with the patient.

**References:**


**Reference Document used as a model:**

RCGP Curriculum Statement No. 3.5 – *Evidence-based Practice*
Further Reading:


Internet Resources:

- Bandolier:  www.medicine.ox.ac.uk/bandolier/
- BMJ Learning:  www.bmjlearning.com/planrecord/index.jsp
- The Cochrane Collaboration:  www.cochrane.org/
- International Clinical Practice Guidelines:  www.clinicalguidelines.org/
- InnovAit – online journal from the RCGP for GP Trainees:  http://rcgp-innovait.oxfordjournals.org/current.dtl#ARTICLES
- GP Notebook  www.gpnotebook.co.uk/homepage.cfm
- National Electronic Library for Health:  www.nelh.nhs.uk
- Royal College of General Practitioners:  www.rcgp.org.uk
- The Synapse:  www.thesynapse.net/
Introduction

Rationale

Since medicines are the main form of treatment given by GPs, prescribing is a frequent activity in family medicine. Data from a local group practice over eight years shows that prescriptions were issued in sixty-three percent of patient encounters.¹

The prescriber shoulders great responsibility and should be aware of the omnipresent risk for error. Patient safety incidents are frequently related to prescriptions as the following data shows:

- A study in Australia showed that 4% of all hospital admissions, with up to 30% in the elderly, were the direct result of a medication error.²
- About 7000 Americans die in hospitals each year as a result of medication errors (US 1993).³
- Globally, it is estimated that for those who receive medicines, more than half of all prescriptions are incorrect and more than half the people involved fail to take them correctly.⁴

During a consultation, the GP must make a large number of vital considerations in a very short time. He/she needs to:

- Decide whether a particular medication is indicated in the clinical situation;
- Exclude contra-indications to the drug;
- Be aware of cautions to prescribe;
- Consider previous experiences of the patient with that drug class or similar drugs as regards undesired effects and allergic reactions;
- Consider if the drug is readily available;
- Consider the possibility of interactions with other drugs, herbal remedies, food and drink the patient may be consuming;
- Consider whether the standard dosage or duration of the drug treatment needs to be altered due to co-morbidity or other characteristics of the patient or his condition;
- Be aware of the addictive and misuse potential of certain drugs (and the need for Control Card and Special Prescription);⁵
- Negotiate with the patient as regards acceptability of mode of delivery of the drug, the frequency of administration, duration of treatment and cost.

To cover all these steps, the doctor needs to take a thorough history, consult his/her medical records, possibly check reference books/websites or consult colleagues, and be willing to discuss treatment options with the patient. Effective communication, honesty, patient empowerment and an agreed management plan all contribute to increase patient concordance to prescribed medication.
At the same time, the GP has clear obligations towards society when prescribing. These duties include:

- Responsible use of antimicrobials to avoid exacerbation of the global problem of bacterial resistance (antimicrobial resistance should notified to the Disease Surveillance Unit);  
- Responsible prescribing of controlled drugs;  
- Rationing to help make just and equal use of available resources (e.g. by using generics);  
- Ethical issues – the doctor must avoid being influenced by pharmaceutical companies, through financial or other illicit incentives, misleading advertising, and disease mongering, to prescribe particular brands of (often very expensive) drugs.  

Maltese health care priorities

In general, doctors’ handwriting is notoriously undecipherable. Moreover, most prescriptions issued in Malta are still handwritten. GPs are pressured by a lot of work and limited time. However, it must be realized that this activity is of fundamental importance in ensuring patient safety. The prescriber must abide to the Medicines Act (Cap 458) Prescription and Dispensing Requirements Rules (2006). The prescriptions should be clearly legible and include date, patient’s and prescriber’s details, drug name, strength, dosage form, quantity and duration of treatment, instructions for use, and doctor’s signature.

There are many potential interventions that have been shown to improve patient safety with medicines. These include information technology (e.g. prescribing software and printed prescriptions) and better transfer of information between primary and secondary care (e.g. printed GP referrals and hospital discharge letters).

All Maltese citizens are entitled for free medication for a list of chronic conditions (Schedule V). Patients are given a repeat prescription every three months. These encounters with the patient should not be reduced to one minute quasi-clerical episodes, but should be utilized by the GP to examine the patient, enquire about any undesired effects, reassess the need for the drug/s and the potential for interactions. Only then should the doctor issue a repeat prescription. The management of chronic conditions is greatly facilitated with continuity of care and computerized medical records.

Due to their potential for addiction and misuse, narcotic and psychotropic drugs must be prescribed on proper prescription forms together with an entry in the Control Card. The GP should prescribe these medicines only when there is a clear indication and for the shortest time possible in the clinical context. He/she must always be on the alert to any drug misuse, try to impede it, and report any suspicious behaviour to the Health Division.
The European Medicines Agency (EMEA) and the Maltese Medicines Authority have a watchdog role in the licensing of medicines and monitoring of their safety. Their pharmacovigilant activity depends on the reporting of adverse drug reactions by doctors. GPs also need to keep abreast of all the communications and directives issued by these agencies.\textsuperscript{13}

Maltese family doctors often hold clinics within the premises of a pharmacy. The pharmacist is the expert on medicines, and a close collaborative and trusting relationship between community pharmacist and GP will undoubtedly benefit their patients.

\section*{Learning Outcomes}

The following learning objectives relate specifically to the family doctor’s role in prescribing. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

\textbf{By the end of the specialist training, the trainee is expected to:}

1. Issue a prescription only if it is indicated and useful to the patient’s wellbeing.

2. List the cognitive steps that a doctor must take before issuing a prescription.

3. Solicit information about previous adverse drug reactions in the patient before issuing any prescription by asking the patient and/or relatives and consulting medical records when these are available.

4. Describe the contra-indications and cautions to prescribe of commonly used drugs (see Knowledge Base, below).

5. Describe the most common undesired effects of frequently used drugs (see Knowledge Base, below).

6. Describe the interactions between commonly used medicines, food (e.g. grapefruit), drink (e.g. alcohol) and herbal remedies (e.g. St John’s Wort).

7. State the usual dosage schedule for commonly used drugs (see Knowledge Base, below).

8. Base pharmacotherapy on up-to-date evidence of good quality.
9. Be prepared to convincingly justify the use of a drug for an unlicensed indication.

10. Describe the possible routes of delivery of a drug (e.g. topical, oral, rectal, vaginal, inhaled, subcutaneous, intravenous, intramuscular) and explain when to use which route.

11. Properly give subcutaneous, intramuscular and intravenous injections. The trainee is also encouraged to learn how to insert subcutaneous implants.

12. Describe the different forms of presentation of drugs (e.g. cream, ointment, tablet, syrup, suspension, capsules, slow-release tablets, enteric-coated tablets, suppositories) and explain when to use which.

13. Show familiarity with the Government Pharmacy Formulary, the Schedule V Drugs list (and the chronic conditions for which drugs are provided free), and the medicines requiring Drugs & Therapeutic Committee (DTC) Approval.

14. Explain how to obtain blank prescriptions for free medicines and controlled drugs.

15. Consult with medical records, peers, the pharmacist, reference books or websites when a lacuna in knowledge is detected.

16. Respect the important role of the community pharmacist within the Primary Care Team.

17. Follow ethical guidelines in his/her professional relationship with pharmaceutical companies and their representatives.\textsuperscript{5,7,8}

18. Exercise care in prescribing Narcotic and Psychotropic drugs only when strictly indicated, and following legal requirements.\textsuperscript{5}

19. Use antimicrobial therapy responsibly and only when strictly indicated. Be able to justify the choice of drug, presentation, dosage, frequency of administration and duration of treatment in a specific clinical situation.

20. Explain the concept of rationing in health care, and how it is applicable to prescribing.


22. Issue clear and legible prescriptions that comply with the Prescription and Dispensing Requirements Rules (2006).\textsuperscript{9}
23. Describe the factors that may help to minimize risk and error in relation to prescribing. Discuss examples how a change in behaviour and/or system (e.g. prescribing software) can influence patient safety.

24. Illustrate how some patient groups may be vulnerable to treatment mishap by virtue of their particular characteristics, such as age, language, literacy, mental capacity, co-morbidity and polypharmacy. Adapt prescription and communication style to each and every patient.

25. Be aware that patient concordance to prescribed medication is notoriously poor, and hence strive to improve it. Demonstrate how to negotiate a management plan with the patient, using effective communication, honesty and patient empowerment.

26. Recognize a hypersensitivity reaction to a drug, and manage it appropriately.

27. Intervene urgently to manage acute anaphylaxis.

Knowledge Base

- **Basic Pharmacological concepts:**
  - active ingredient, excipient, generic,
  - systemic bioavailability, pharmacokinetics, pharmacodynamics,
  - competitive inhibition, half life, class effect,
  - placebo effect, synergistic effect, loading dose,
  - steady state, therapeutic ratio, liver enzyme induction,
  - idiosyncratic reaction, hypersensitivity reaction,
  - minimum inhibitory concentration, pharmacogenetics.

- **Locally available drugs, presentations and doses in the:**
  - Government Pharmacy Formulary
  - Schedule V Drugs list (and the chronic conditions for which they are indicated)
  - Medicines requiring Drugs & Therapeutic Committee (DTC) Approval
  - Private market and community pharmacies.

- Narcotics and Psychotropic Drugs requiring special prescription.

- Usual dosage schedule for commonly used drugs (e.g. antimicrobials, non-steroidal anti-inflammatory drugs, analgesics, anti-hypertensives, oral contraceptives, anti-histamines, anti-depressants, anxiolytics, anti-emetics, hypoglycaemic agents, glucocorticosteroids).
- Contra-indications and cautions to prescribe for commonly used drugs.
- Frequent undesired effects of commonly used drugs.
- Important drug-drug interactions (e.g. warfarin, digoxin, oral contraceptives, anti-epileptics, amiodarone, ketoconazole).
- Important drug-alcohol (e.g. metronidazole) and drug-food interactions (e.g. grapefruit)

**Teaching and learning resources**

**Work-based learning – in primary care**

- Familiarization visits to the community pharmacy and interaction with the pharmacist.
- Tutorials on principles of pharmacotherapeutics, prescribing and the management of anaphylaxis.
- Random case analysis of consultations with a focus on prescribing or drug hypersensitivity.
- Analysis of video recorded consultations with a focus on prescribing or drug hypersensitivity.
- Observation and audit of prescribing habits of GPs (e.g. through use of database).
- Using Educational Portfolio to record a personal Significant Event Audit (SEA) related to prescribing, with learning plan.
- Using Educational Portfolio to record other learning points and reflections related to prescribing.

**Work-based learning – in secondary care**

- Observation of the prescribing habits of doctors in secondary care.
- Observation of the role of the clinical pharmacist in the multidisciplinary team.
- Tutorials on principles of prescribing in special groups (e.g. children; pregnant women; the elderly; asthmatics; patient with renal failure).
- Using Educational Portfolio to record learning points and reflections.

**Other learning opportunities**

- Interactive half-day release programme sessions (possibly held by a clinical pharmacist) are an ideal setting to explore pharmacotherapeutics and legislation related to prescribing.
• Reading journals e.g. Journal of the Malta College of Pharmacy Practice.
• Private study of internet resources about pharmacology and pharmacotherapeutics.
• Conferences, seminars and courses (held both locally and internationally) dealing with pharmacotherapeutics and prescribing, possibly together with pharmacists and nurses.
• Informal discussions with trainer and peers.

Formative Assessment

• Directly Observed Procedure of injecting s.c, i.m., i.v.
• Analysis of video recorded consultations with a focus on prescribing.
• Analysis of a personal SEA related to prescribing in the Educational Portfolio.
• Case-Based Discussion on consultation with a focus on pharmacotherapeutics, prescribing and drug hypersensitivity
• Patient Satisfaction Questionnaire with questions related to communication and negotiated treatment plan
• Feedback from the community pharmacist concerning the quality and content of prescriptions.

References:

1. Unpublished data from TransHis Database at St James Group Practice, Zabbar (Jan 2000-Oct 2008)
5. Drugs (Control) Regulations 1985 (amended) S.L. 31.18.  
(last accessed 22.10.08)

6. Malta Medicines Authority (May 2008) Guidelines for the advertising of 
medicinal products for human use. Ref No: GP 1.02 available from 
http://www.medicinesauthority.gov.mt (last accessed 21.10.08)

EJBO Vol. 9 no.2; 4-11.

http://www.efpia.org/Objects/2/Files/Promomedicines2004.pdf (last 
accessed 21.10.08)

Act (CAP458)

N Engl J Med; 348:2526-34

between primary health care and hospital care.  
Pharm World Sci; 27:116-20

correcting medication errors at hospital admission and discharge.  
Qual Saf Health Care; 15(2):122-6

reaction reporting system for Malta.  
Malta Medical Journal. Vol 16; Issue 03:31-33

Dept.

15. GP Trainee Educational Portfolio (Logbook) (2008) Malta: Specialist 
http://www.4shared.com/file/29161759/7b03dbdf/GP_TRAINEE_EDUCAT 
IONAL_PORTFOLIO__-__STPFM-Malta--__Jul08.html (last accessed 
17.10.2008)

Further Reading:

- British National Formulary. Jointly published twice yearly by the Royal 
- Pharmacotherapy for Primary Care. Linn WD, O’Rourke RA, Posey 
LM, O’Keefe ME Publisher: McGraw-Hill Companies, August 2008 
- Journal of the Malta College of Pharmacy Practice c/o Department of 
Pharmacy, University of Malta, Msida. website: www.mcppnet.org
Chapter 16.

Social Problems, Services and Benefits

Author: Dr Daniel Sammut MD MMCFD

Date: 20th November, 2008
Introduction

Rationale

A welfare state is a model in which the state assumes primary responsibility for the welfare of its citizens. This responsibility in theory ought to be comprehensive, because all aspects of welfare are considered and universally applied to citizens as a "right". Welfare state can also mean the creation of a "safety net" of minimum standards of varying forms of welfare.\(^1\)

Complemented by a social fabric which still values strong community and family ties, Malta thrives from a strongly entrenched social welfare system that actively protects the Island from the risk-of-poverty gap. However, beyond Malta's deep-rooted social consciousness, trends for risk-of-poverty aggregates reveal that population groups (including inter alia the long term unemployed, single parents, irregular migrants, drug and alcohol dependents, victims of domestic violence, older persons, children and young people at risk) are vulnerable to varying degrees and different forms of poverty and social exclusion. Exposure to poverty negatively impacts a person's present and prospective life chances. Poverty jeopardises the educational attainment, health status and work prospects of the person concerned thus exposing him/her to a higher risk of being socially excluded.\(^2\)

In 1885 the Maltese Government sponsored the first social benefits on the island. The first beneficiaries were the members of the Malta Police Force, in whose favour a specific pension scheme was set up. Next on the list came the members of Malta’s Civil Service. Social Security measures, as we know them today, were introduced parallel to self-government in 1921. Since then they have been systematically extended to new categories (workers, widows, orphans, elderly, disabled, unemployed, families), benefits have been articulated new typologies (child and parental allowances, disabled child allowances, care allowances, family bonus, maternity benefit, carer’s pensions), and new risks (illness, occupational accidents) have been included in the standard scheme of social protection.\(^3\)

The family doctor should be an ally to the vulnerable patient and help the latter and his/her family to negotiate through the bureaucratic process to access these support services. This necessitates familiarity of the GP with all the existent social services, and the knowledge of whom to refer where, and how.
Maltese health care priorities

Malta, like most EU countries, is going through major demographic changes. Interwoven with gradual secularisation and an increasingly effervescent socio-cultural milieu, these demographic changes are necessitating a transitional phase in Maltese society. Population aging, which may be primarily attributed to a decline in fertility rates and an increase in life expectancy, also holds significant long-term implications. Family ties are still strong. At the same time, the incidence of births outside marriage is on the increase (19.4% in 2005 compared to 4.2% in 2002) with 59.3% of such births involving mothers below the age of 25 years.

The incidence of women in formal employment is still relatively much lower than the employment rate for men (women 32.8%, men 74.1% and total 53.7%, 2005). These formal employment patterns can negatively impact women’s pension entitlements later on in life. A positive trend in employment rates of older workers (55-64) in general and female older workers in particular was achieved. This factor ties well with pension requirements and poverty prevention initiatives. Poverty or risk of poverty impinges on various life aspects including employment, education, culture and leisure, housing and social welfare. As such factors are in turn likely to influence the level of social inclusion, they need to be addressed effectively and efficiently.

Malta’s “smallness” together with an ethos of centralised welfare service provision have necessitated that over the years policies and strategies be developed and implemented on a macro, national level. Such an approach tends to overlook the regional specificity of certain social problems. Whereas health centres and social security offices have, for several years, had their outlets in different regions of the Maltese islands, it was only around ten years ago that Malta saw the setting up of its first community development team. This community development team eventually expanded into a project under the name of ACCESS. Bridging together social security, unemployment, housing and social intervention services, ACCESS was established in Cottonera to respond to the high incidence of unemployment and complex social problems in the area. The Centre provides a plethora of welfare services to the local community while also acting as a pivotal point for facilitating and empowering community development initiatives anchored on the involvement of community organisations and public consultation. Community based services are increasingly becoming the more acceptable and preferred form of social intervention and support, as such an approach seems to address a wide range of actual and complex needs within a person’s immediate and intimate social milieu. Moreover, experience shows that these projects help to promote gender mainstreaming and lead to greater individual empowerment and participation.

Apart from ACCESS, there are other social inclusion projects that possess a regional, community based orientation. The various community based lifelong
learning centres run by the Foundation for Educational Services (FES) encourage literacy and training skills with the aim of facilitating employment and enhancing the standard of living. In terms of health and social work, the regional health centres such as the one in Qormi, offer an inclusive support service to persons with mental health problems who require generic social work intervention.

A wealth of benefits and services is available locally for the protection of children. Benefits include children’s allowance and disabled child allowance. Social services for vulnerable children include child protection, adoption, foster care and looked after children service, Smart Kids and Home Start. The Support Line 179 provides an easy gateway to help users of all ages to easily access the service they need.

Prevention and early intervention programmes assist people from becoming increasingly vulnerable thus reducing their risk of becoming socially excluded. Prevention and early intervention should therefore help build stronger communities. In its commitment to build stronger communities, Malta, through its voluntary and nonvoluntary sectors, is increasingly focusing on prevention and early intervention initiatives. Public awareness campaigns cover a wide range of such social issues as child abuse, addictive behaviour, disability, sexual health and domestic violence. Moreover, the ongoing provision of programmes that address drug rehabilitation, parental skills and illiteracy contributes to mitigate or reduce the challenges for inclusion encountered by vulnerable persons. The foregoing suggests that education is the cornerstone for prevention and early intervention. By promoting personal development through information campaigns and training, education also enhances a person’s employability prospects and thus contributes towards the strengthening of the community. The GP plays a vital role in the promotion of healthy lifestyles and the prevention of physical, psychological and social dysfunction.

Every right to a social security benefit brings along with it an obligation to refrain from abuse. For this reason, Malta is committed to continue to ensure that benefits are only awarded to those who truly need them and are entitled to them. For this purpose, a Benefit Fraud and Investigation Directorate has been established within the Ministry for the Family and Social Solidarity. However, the need to further increase awareness and responsibilise citizens on social security benefit entitlement regimes is still felt. Family doctors shoulder the responsibility of facilitating proper use and preventing misuse of such services. To uphold this principle of justice, they should consistently refuse to endorse any application in the absence of personal verification of the need for a particular social benefit or service.

Voluntary organisations have a long and valued tradition in Malta. The country’s voluntary sector is presently made up of a vast range of civil society organisations, foundations, associations, pressure groups, clubs and federations.
Health sector NGOs are mainly self-help and advocacy groups for specific diseases or sectors of the population. Some provide health or support services whilst others serve to raise funds for investment in specific areas. The GP should be knowledgeable about the wide range of services offered by NGOs, and be ready to refer patients who might benefit.

Caritas is the quintessential example of a NGO that gives a very important social contribution. It has a long history of excellent and comprehensive support services for the help of victims of substance abuse, usury or gambling and their families. It also provides help to the elderly (HelpAge), counselling for relationship problems, and counselling pre-testing for HIV (Xefaq service). Caritas also provides a framework and support to self-help groups such as Alcoholics Anonymous, Epilepsy Association and Huntington's Chorea support group.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the certification and referral of patients for social services and benefits. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Recognise that social factors often have a profound effect on the biological, psychological and social health of the individual. The latter includes educational attainment, economic stability, relationships and quality of life in general.

2. Recognise that social problems frequently present as abnormal behaviour in children, or with psychosomatic symptoms, anxiety and/or depression at all ages.

3. Recognise that certain social categories are intrinsically vulnerable to poverty and exclusion.

4. Demonstrate the knowledge, skills and attitudes for effective communication to elicit and understand the social needs of the patient and his/her family, negotiating an acceptable course of action and justifying that course of action.

5. Recognise his/her personal values/feelings/attitudes and how these influence decision-making. Clarify and justify personal ethics relating to social issues.
6. Appreciate that the family unit is generally still strong in Malta and that it supplies most of the support needed by the individual.

7. Work with the patient (and possibly his/her family) to empower him/her to take charge of his/her social condition and make sensible efforts to improve it.

8. Demonstrate basic counseling skills when dealing with relationship problems.

9. Maintain professional secrecy at all times except when the patient consents or when obliged by law to disclose confidential information.

10. Demonstrate comprehensive knowledge of the wide range of social services (both governmental and non-) and benefits available locally.

11. Readily refer the patient to social workers and services (both governmental and non-) whenever this is thought to be beneficial for the patient and/or his family.

12. Explain the role of the social worker in the support of vulnerable people. Describe the indications for marital counselling and family therapy.

13. Explain the role of the local Social Security Office as a portal to various social services and benefits. Explain how the e-government website facilitates access to social services and benefits. Explain how doctors may obtain blank sickness certificates and other application forms.

14. Describe the official rules governing certification of a person for a social service or benefit, and the procedure required for this.

15. Demonstrate the responsibility in facilitating proper use and preventing misuse of social services and benefits. Uphold the principle of justice by refusing to certify in the absence of personal verification of the need for a social benefit or service. Manage a situation where his/her values are in conflict with those of the patient by being assertive without being aggressive.

16. Be aware of the obligation to use public resources in a prudent manner to benefit the whole community. Give morally relevant reasons for decisions that balance individual patient needs with the needs of the wider community.
Knowledge Base

**Governmental services:**
(last accessed 21.12.08))

- services provided by Aġenzija Appoġġ for children, families, victims of domestic violence, refugees, mental illness. supportline 179
- services provided by Aġenzija Sedqa for victims of substance abuse and alcohol. information and advice service helpline 151
- services provided by Aġenzija Sapport and National Commission for Disability for the disabled and their carers
- benefits provided by the Social Security Division for marriage, maternity, single parents, children, disabled children, sickness, injury at work, invalidity, adult disability, unemployment, widows, retirement, carers
- benefits and services provided for the elderly by the Social security Division and the National Commission for the Elderly

**Services provided by Non-Governmental Organisations:**
(more info available at: http://www.eapnmalta.org/page.asp?p=6975&l=1
(last accessed 21.12.08))

- Arka Foundation  http://www.arkafoundation.org/
- Association of Maltese Lions Clubs
- Association of Men's Rights(Malta) http://www.mensra@maltanet.net
- Azzjoni Kattolika – Kummissjoni Hidma Ghall-Morda u Persuni b'Dizabilita
- Caritas Malta http://www.caritasmalta.org/
- Dar L-Emigrant
- Dar Merha Bik
- Dar Qalb ta’ Gesu - Second Stage shelter
- Dar it-Tama www.geocities.com/Athens/Academy/8664/DIT
- DISCERN http://www.discern-malta.org/
- Disabled by Accident
- Eden Foundation http://www.edenfoundation.com/
- "Ejjew Ghandi’ Childrens Homes http://www.maltachurch.org.mt/
- Foundation for Respite Care Services http://www.darilkaptan.org/
- Fondazzjoni Nazzareth
- Fondazzjoni Wens
- Fundazzjoni Hajja Indipendenti
- Fundazzjoni Trasport Ghal Hajja Indipendenti
- Ghaqda ghat-Trasport tal-Morda f’Lourdes
- Id-Dar Tal-Providenza
- Integra Foundation
• International Wives Association
• Ir-Razzett tal-Ħbiberija
• Jesuit Faith and Justice Centre  www.jesuit.org.mt/socialjustice
• Jesuit Refugee Service  http://www.jrsmalta.org/
• Kumitat Problemi tal-Qalb
• Leo Club (Malta)
• Malta Confederation of Women's Organisations
• Malta Federation of Organisations of Persons with Disability
• Malta Hospice Movement
• Malta National Philanthropic Association
• Malta Resource Centre for Civil Society NGOs  http://www.mrc.org.mt/
• Maltese Cross Corps
• Mental Health Association
• Movement in Favour of Rights of Person with Disability
• Moviment Era Gdida
• Moviment Kuragg u Tama ghar-Romol
• Moviment ta' Kana
• National Parents Society for Persons with Disability
• OASI Foundation  http://www.oasi.org.mt/
• Order of Charity – Follereau Foundation
• Paulo Freire Institute  http://www.jesuit.org.mt/justice/freire.html
• Prison Fellowship
• Resettlement Society
• Richmond Foundation  http://www.richmond.org.mt/
• Saint Jeanne Antide Welfare Campaign
• Samaritans
• SANDS - Stillbirth and Neonatal Death Society (Malta)
• Servizz Nisimghek
• Socjeta' San Vincenz de Paule
• Social Action Movement
• Social Assistance Secretariat- Catholic Action Movement  http://www.socialassistance.org/
• SOS Malta  http://www.sosmalta.org/
• Step by Step Foundation
• Tobit Foundation
• Voluntary Helpers Group
• Ward u Zahar
• YMCA Valletta
Self-help and Support Services:

- ADHD Support Group
- Alcohols Anonymous
- Al-Anon Family Groups
- Breast Care Support Group
- Cerebral Palsy Association
- Deaf People Association
- Dementia Support Group
- Down Syndrome Association Malta http://www.dsa.org.net.mt/
- Down's Children Association
- Dyslexia Association
- Eating Disorders Anonymous
- Eczema Support Group
- Epilepsy Association (Caritas Malta)
- Epilepsy Society
- Gamblers Anonymous
- Ghaqda Kontra id-Dijabete
- Ghaqda Skoljozi
- Ghaqda Spina Bifida u Hydrocephalus
- HANDS
- Haemophilia Society
- Lupus Support Group
- Malta Gay Rights Movement http://www.maltagayrights.org/
- Malta Society of the Blind
- Maltese Institute for Brain Injured Children
- MIRA - Moviment Impenn ghar-Rijabilitazzjoni ta’ l-Alcoholici
- Multiple Sclerosis Society
- Muscular Dystrophy Group
- Retinitis Pigmentosa Association
- Schizophrenia Association
- Stroke Support Group
Teaching and learning resources

Work-based learning – *in primary care*

- Observation and practice in the identification and management of social needs in general practice consultations. Proper certification of patients eligible to social services and benefits; filling in application forms. Learning basic counselling skills. Using the therapeutic relationship to offer support and follow-up to vulnerable patients. Referral to appropriate agencies when indicated.

- Tutorials on social problems, services and benefits.

- Random case analysis of consultations with a focus on social problems, services and benefits, and their appropriate use.

- Analysis of video recorded consultations with a focus on social problems, services and benefits, and their appropriate use.

- Using Educational Portfolio to record reflections and learning points.

Work-based learning – *in secondary care*

- Observation and practice in the identification and management of social needs in secondary care. Proper certification of patients eligible to social services and benefits; filling in application forms. Learning basic counselling skills. Using the therapeutic relationship to offer support and follow-up to vulnerable patients. Referral to appropriate agencies when indicated.

- Tutorials on social problems, services and benefits.

- Using Educational Portfolio to record reflections and learning points.

Other learning opportunities

- Interactive half-day release programme sessions are an ideal setting to discuss social problems, services and benefits and their proper use. Counselling skills may be taught using role play.

- Private study of internet resources

- Conferences and courses dealing with social problems, services and benefits.

- Informal discussions with trainer and peers
• Learning opportunities with other professionals such as social workers, counsellors, marriage mediators, psychologists.

**Formative Assessment**

• Analysis of video recorded consultations dealing with social problems, services/benefits, and the appropriate use of the latter.

• Analysis of the Educational Portfolio for social values, the management of social problems, and the referral to social services and benefits.

• Case-Based Discussion on consultations with a social problem.

• Patient satisfaction questionnaire.

• Multi-source feedback.

**References:**

Chapter 17.

Chronic Disease Management

Author: Dr Daniel Sammut MD MMCFD
Date: 6th January, 2009
Introduction

Rationale

The predominant disease pattern in the developed world is one of chronic illness. Long-term conditions frequently encountered and managed in general practice are: diabetes mellitus, arthritis, cancer, back pain, asthma, other chronic lung disease, hypertension, heart disease, hyperlipidaemia, stroke, dementia, irritable bowel syndrome, depression and anxiety.

Although details of management vary according to the specific illness (and appear in the clinical modules of this curriculum), there are common elements that feature in the management of all chronic disease. The rationale for this module is to explore these common themes. For this reason, the sections on Knowledge and Relevant Guidelines have been omitted from this module.

Apart from the physical damage caused directly by chronic disease, the patient often suffers from psychological effects. When a patient is told that he/she has contracted a chronic disease that is not curable, he/she passes through a period of 'bereavement' where he/she grieves the loss of the 'healthy self', and then gradually adapts to the consequences of the illness. These may include uncomfortable symptoms, loss of function, disfigurement, long-term unpleasant treatments with disagreeable effects, hospitalization, and possibly a poor outcome. On a psychological level, feelings such as fear of the unknown, concerns about the future, hating to be dependant on relatives, feeling helpless and hopeless, and possibly frank depression may develop.

Chronic illness may also have detrimental social effects. These may include strained family relationships, unemployment, impaired education and financial difficulties. The GP should try to harness the help of family members and friends of the patient. A working knowledge of extant social services (governmental and NGOs) and benefits will enable the family doctor to help his/her patient to access these services.

Health care staff may mitigate suffering by offering honest and patient explanation to the patient and his carer/s about what is going on, listening to their ideas, concerns and expectations, and being sensitive and supportive all the time. The family doctor should try to empower the patient and his carer/s to actively manage the disease themselves with the support of health care providers, rather than be the passive recipients of treatment. This involves a readiness on the doctor’s part to:

- negotiate an individualised management plan
- to agree on goals of treatment
- to provide tailored education in self-management and answer any number of questions
to encourage the patient and his carer/s to access more information (e.g. patient information leaflets, the internet)
- to refer them to available support groups and services
- to provide planned follow-up (and emergency care if needed).\(^1\)

**Maltese health care priorities**

In the pre-budget document for 2009, the current Maltese Government stated:

‘Having recently achieved an important milestone with the opening of Mater Dei Hospital, in the coming months and years Government intends to turn its attention to strengthen primary and community care services. The emphasis across all services shall be a preventive approach together with a focus on rehabilitation to ensure that people remain active and independent within their communities wherever possible. Such an approach will also lead to more effective and sustainable use of the resources within Mater Dei Hospital.

The planned developments mentioned in this document are:

- To reform and strengthen primary and community care;
- To step up the fight against cancer to reduce age standardized incidence and increase overall 5 year survival;
- To reduce the burden of cardiovascular disease and diabetes;
- To strengthen services and support for families with dependent persons
- To promote patients’ rights and responsibilities;
- To further invest in ICT for the health sector;
- To develop and sustain a health-care work force capable of meeting the growing needs of the population.’\(^2\)

The care of people with long-term disease is universally recognised as a major challenge, and national healthcare services around the world are reconfiguring to meet the demand. Increasingly, specialist roles are being devolved to family physicians, echoing recent global recognition of the contribution of primary care expertise to the management of common conditions such as respiratory disease.

General Practitioners with a Special Interest (GPwSIs), a key component of the UK National Health Service modernisation agenda, challenge traditional models of specialist care. The key policy driver is the imperative to reduce waiting lists for specialist opinions in areas such as ophthalmology, orthopaedics, dermatology, ear nose and throat surgery, and for specific procedures such as endoscopy. The emphasis is on maintaining a family care perspective while developing defined specialist competencies to meet local healthcare need.\(^3\)

Although most Maltese GPs do have their areas of particular interest (e.g. female GPs see a lot of gynaecological and obstetric cases), there are no formal GPwSIs posts in these islands. The Malta College of Family Doctors supports
this concept and has in fact recently organised a well-attended Certificate in Diabetes Care in collaboration with the Irish College of GPs.

Structured care has great benefits in the management of chronic disease in primary care. Specialised clinics can provide targeted health care, but should always try to remain patient-oriented and avoid becoming wholly disease-oriented. The following are the characteristics of successful specialized clinics:

- proper prior planning and costing (in terms of rationing of resources)
- identification of potential candidates and feeding into the system
- a comprehensive interdisciplinary approach
- structured questionnaires
- evidence-based management protocols
- use of biological markers for the severity of disease (e.g. spirometry; HbA1c)
- stepped intensity of care according to need
- monitoring of patient concordance (e.g. checking prescription frequency)
- targeted use of specialist resources
- customised medical record to facilitate first encounter, follow-up and recall
- regular audit and implementation of changes

A local example of such a specialised clinic is the diabetes clinic held in the government Health Centres. Diabetes is a chronic condition that is common in Malta, it may have multiple complications, significant morbidity and mortality, and aggressive treatment is proven to reduce all these. A recent audit of the diabetes clinic makes very interesting reading. It is hoped that in the near future, more specialized clinics are set up in both the local public and private sectors of primary care for various common chronic diseases.

Even in the absence of specialised clinics, good medical record keeping, an interdisciplinary approach, planned care and follow-up are all essential elements to achieve the best outcomes in chronic illness. The family doctor should be the coordinator of care, and may also need to act as an advocate for his/her patient.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the long-term management of chronic disease.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care consultations with any patient presenting with chronic illness.
2. Take a careful history of the symptoms experienced by the patient, and his/her ideas, fears, concerns and expectations relating to his illness and its treatment.

3. Use the therapeutic relationship to support the patient to adapt to the realities of his/her illness and its treatment, feel empowered to take care of him/herself, make the best use of health care, adopt a healthy lifestyle, and continue to function at the highest level possible at each stage.

4. Manage chronic illness using evidence-based guidelines/protocols, providing ongoing treatment and support and referring more complex/severe cases for investigation or secondary care.

5. Describe the natural history of chronic disease and give appropriate health advice, and certification for absence from school or work.

6. Be familiar with the commonly used treatments for chronic disease (e.g. drugs; surgery; physiotherapy) and list their indications and possible undesired effects.

7. Discuss the diagnosis, prognosis, treatment options and possible adverse effects with the patient (and his/her family if appropriate) so as to negotiate a suitable tailored management plan and agreed goals of treatment. Encourage questioning by the patient and encourage the patient to access further information and patient support groups.


9. Describe how validated biological markers should be used in diagnosis and assessment of chronic disease severity and response to treatment.

10. Explain how the use of a customised medical record can facilitate structured management of chronic disease (including issuing of repeat prescriptions), follow-up, recall, and audit.

11. Recognise that chronic disease may have profound physical, psychological and social effects on the patient. Take a holistic approach to the patient by assessing the psychological and social dimensions of disease and intervening to help, possibly referring to support groups, social workers, counsellors or psychologists. Screen for depression in patients with chronic disease and treat appropriately.

12. Be sensitive to financial difficulties in his/her patients. Offer cost-effective treatment (e.g. generics; free medicines if available).
13. Appreciate that chronic disease may also have psychological and social effects on the patient’s family, friends and employers. Harness the help of the social network of the patient in the management of the illness.

14. Provide planned follow-up at appropriate time intervals.

15. Provide emergency care in the clinic or at the patient’s home.

16. Describe the complimentary roles of other health professionals in the management of chronic illness. Readily involve other health care workers when their help may be useful. Coordinate interdisciplinary care in chronic illness.

17. Describe the pre-requisites for setting up a specialised clinic for chronic disease.

18. Explain the concept of rationing of health resources as it applies to the management of chronic illness.

**Teaching and learning resources**

**Work-based learning – in primary care**

- Observation and practice in the management of chronic disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Educating and empowering the patient and family to take charge of their condition. Using patient questionnaires and diaries and biological markers to diagnose and assess severity of chronic illness and response to treatment. Interpreting laboratory, radiology and endoscopy results. Using medical records for the initial assessment, follow-up and audit. Involving other health care professionals when indicated. Referring to support groups and social services when indicated.

- Tutorials on principles of chronic disease management

- Analysis of video recorded consultations dealing with the management of chronic illness

- Random case analysis of consultations dealing with the management of chronic illness

- Using Educational Portfolio to record learning points and reflections
Work-based learning – *in secondary care*

- Observation and practice in the management of chronic disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Educating and empowering the patient and family to take charge of their condition. Using patient questionnaires and diaries and biological markers to diagnose and assess severity of chronic illness and response to treatment. Interpreting laboratory, radiology and endoscopy results. Using medical records for the initial assessment, follow-up and audit. Observing interdisciplinary approach to management of chronic disease in secondary care
- Tutorials on principles of chronic disease management
- Using Educational Portfolio to record learning points and reflections

Other learning opportunities

- Private study of current local and international guidelines/protocols on the management of chronic disease, journals and internet resources
- Interactive half-day release programme sessions on chronic disease management
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with other medical specialists, nurses, specialized nurses, pharmacists, physiotherapists, occupational therapists, health care managers etc...

Formative Assessment

- Analysis of recorded consultations dealing with the management of chronic disease
- Mini-clinical examination e.g. taking BP; interpreting HbA\(_1c\) result; performing and interpreting spirometry; interpreting echocardiography result
- Case-Based Discussion on consultations dealing with the management of chronic disease
- Analysis of Educational Portfolio for cases dealing with the management of chronic disease.
- Patient satisfaction questionnaire
- Multisource feedback.
References:

Chapter 18.

Disease Prevention and Screening

Author: Dr Daniel Sammut MD MMCFD
Date: 21st June, 2008

Reference Document:
RCGP Curriculum Statement No. 15.5 –
Healthy People: promoting health and preventing disease
Introduction

Rationale

Family doctors, together with the other members of the primary healthcare team, play a vital role in promoting health and preventing disease for people of all ages and backgrounds. They provide the link between the public health agenda and individual patient care.

Patients visit their GPs about three times per year, on average, mostly for minor, self-limiting problems. Therefore, doctors have many excellent opportunities each year to discuss healthy living with their patients, to perform check-ups and to detect early signs of illness. A sizable proportion of the Maltese population, particularly adult males, have a cultural aversion to visiting their GP for check-ups. However, when they visit for other reasons, the family doctor should seize the opportunity to sensitively educate, advise and intervene if the patient so desires. One may also harness the help of the patient’s close relatives, if this is deemed appropriate.

Family doctors should take a pro-active approach in opportunistic health education and evidence-based screening. They are in an ideal position to do this because the patient trusts them, they know the patient’s medical and social history, and they also know their patient’s family and any relevant genetic or environmental risk factors.

At the same time, doctors carry a responsibility not to medicalize normality, and to avoid doing harm by being over-zealous in their interventions!

Therapeutic lifestyle changes are notoriously difficult for anyone to implement, but through multiple contacts with the patient, GPs can provide the motivation and support for this to occur. The doctor who is attuned to the community’s health beliefs and expectations, has a non-judgmental approach and who is ready to negotiate a compromise with the patient will have more success in this task. Through continuity of care and good medical records, GPs can follow-up their patient’s progress and intervene as necessary over the years. Patients are usually very grateful when their doctor takes time to sensitively explain and educate, investing energy to keep them healthy.

Individual patients and populations that are socio-economically disadvantaged are disproportionately affected by co-morbidity. Unfortunately, the evidence base of clinical practice is mainly derived from research into single disease states and those with significant co-morbidity, the elderly and those who are disadvantaged, either socio-economically or by ethnic group, are usually under-represented and often excluded from clinical research. GPs have a responsibility to recognize, address and minimize health inequalities in their practice population.
In order to play an effective role in improving the health of their patients and their wider community GPs will require a good understanding of public health knowledge and skills.

**Maltese health care priorities**

**Local Statistics:**

- In a systematic review comparing estimates of the prevalence of overweight and obesity in school-aged youth from 34 countries showed that Malta has the highest prevalence of overweight (pre-obese and obese) and obese youth at 25.4% and 7.9% respectively.\(^1\)
  - The World Health Organisation estimates that 66% of females and 71.4% of Maltese males have a BMI>25kg/m\(^2\) while 34.8% of females and 25.9% of males have a BMI>30kg/m\(^2\).\(^2\) Obesity carries a high burden of morbidity and mortality, and it also a major contributor to the development of diabetes mellitus, which is already estimated to affect about 11.6% of the population.\(^3\)

- The main causes of death are the non-communicable diseases, principally circulatory disease and cancers. Important causes of loss of years of life below the age of 65 are coronary artery disease, cancer of the lung and accidents in men, and cancer of the female breast and coronary artery disease in women.\(^4\)
  - Coronary artery disease and stroke are the leading causes of death in both men and women. They are also important causes of morbidity. Comparison between incidence rates in Malta and in EU countries has shown that Malta has a low overall incidence of cancer. The rates of gastrointestinal cancer, lung cancer and cancer of the cervix are among the lowest in Europe, while those of breast cancer, cancer of the body of the uterus and lymphomata are among the highest.\(^4\)
  - The WHO estimates that 20.4% of Maltese females and 29.2% of males smoke tobacco.\(^2\) Among children under age16, 31% of girls and and 25% of boys smoke.\(^5\)
  - Less than 30% of Maltese people indulge in vigorous or moderate physical activity. 30% do not even walk for at least 10 minutes at a time!\(^5\)
  - 48% of patients attending the GU clinic report having casual sex while 63% admit to never using protection during casual sex.\(^6\)
  - Only about 40% of mothers breastfeed their infants.\(^7\)
The above worrying statistics demonstrate that there is ample scope for health promotion and disease prevention. 69% of Maltese get their information about health from their GP (private or Health Centre). 65% believe that their own health would be better if had regular checks from their doctor. The family doctor needs to be well acquainted with the locally available services related to health promotion, disease prevention and screening, and know how to help his patients access them.

The Department of Health Promotion and Disease Prevention undertakes various national campaigns to promote smoking cessation, healthy eating, exercise, moderation in alcohol consumption, use of sunscreen etc... National preventative programmes include the national free immunization schedule for all citizens of Malta. Screening programmes for scoliosis, child development, cervical cancer, hyperlipidaemia, diabetes and glaucoma are in place on a national scale. Breast cancer screening is in the process of being implemented.

To this day, there is no official primary care patient registration system in Malta, and patients can easily shop around several GPs and other specialists. This fact impairs continuity of care and weakens preventative medicine. It is hoped that things will change in the near future.

Therefore, most of the time of family doctors is taken up by reactive medicine, i.e. in treating established disease. The modern approach requires a paradigm shift towards prevention of disease, since a lot of morbidity and mortality can be prevented. Interpersonal and organisational continuity of care are very important in this regard. In addition, a dedicated patient recall system for screening should be in place. Other resources, such as patient information leaflets, contact numbers and websites for self-help groups should be available in the clinic. An interdisciplinary approach, with all members of the primary care team working in harmony towards a common goal, is indispensable.

Travel to ‘exotic’ countries has become more popular in recent years. This requires the family doctor to have access to up-to-date information about the risks for infectious disease inherent in traveling to a particular country; to be able to give reliable advice (and preferably give patient information leaflets) as to how to prevent such infections; and to be able to give appropriate and timely immunizations.

The influx of asylum seekers from African states to our shores in recent years brings new challenges to family medicine in Malta. These people have a different cultures, languages, and risk factors for disease (e.g. sickle-cell anaemia, TB), and often live in sub-standard housing on poor income. The Maltese GP needs to adapt to this reality in his/her patient community.
Learning Outcomes

The following learning objectives relate specifically to the family doctor’s role working in partnership with healthy people in promoting health and preventing disease with a focus on the important public health responsibilities of GPs in this respect.

By the end of the specialist training, the trainee is expected to:

1. Explain the concepts of health, function and quality of life as well as models of disease. These include health promotion and preventative activities, risk management and issues of cost-efficiency and rationing.

2. Describe the characteristics of the community including socio-economic, education, housing, ethnicity and health features. Recognise the impact of inequalities and discrimination on health, and the inequalities in healthcare provision: the ‘inverse care law’.

3. Appreciate that the patient’s health beliefs are strongly influenced by family members, culture, socio-economic factors, the workplace, the communication media and ‘new fashions’.

4. Demonstrate that he/she understands the different and complimentary roles of GPs, public health specialists, specialists in secondary care, practice nurses, community nurses, midwives, physiotherapists, pharmacists, nutritionists, health educators, other healthcare disciplines and NGOs in health promotion, disease prevention and screening in the local community. Understand the importance of teamwork and his/her central responsibility to coordinate care provided by other agents. Be prepared to act as an advocate for the patient and his/her family.

5. Show a wide knowledge of the epidemiology of risk factors for disease including alcohol and substance abuse, accidents, child abuse, obesity, unhealthy nutrition, lack of exercise, poor hygiene, genetic factors, occupation, social deprivation and sexual behaviour, etc…

6. Demonstrate familiarity with the epidemiology of established disease as it presents in primary care, and the major causes of morbidity and mortality in the local community. Data from the Maltese Transition Project⁴ and the periodic publications of the Infectious Disease Prevention and Control Unit and the Department of Health Information and Research are useful in this regard.

7. Explain the principles of prevention and preventative strategies, and the consulting skills and clinical judgement required to apply public health
strategies to a particular individual, tailoring interventions to his/her specific needs and preferences. Understand the concept of risk and be able to communicate risk effectively to the patient and family. Promote health on an individual basis as part of the consultation.

8. Assess an individual patient's risk factors by using basic statistical techniques.

9. Take a holistic approach and sensitively solicit the patient’s beliefs, concerns, values and expectations related to health and disease at every step in a patient-centred consultation. Involving the patient and, where appropriate, his or her family in developing acceptable management plans is a key component of this approach. Encourage questioning by the patient and encourage the patient, their carer (and family when appropriate) to access further information and patient support groups.

10. Explain the concepts inherent in the cognitive behavioural model of stages of change⁹, and be ready to accept his patient’s position (even if the latter does not wish to change an unhealthy habit) without putting in jeopardy the therapeutic relationship.

11. If the patient is willing to change, he/she should negotiate a shared management plan, empower the patient to look after his health, and provide psychological and sometimes pharmaceutical support throughout the, often difficult, process of change. Follow up, continued reinforcement and support over time and where appropriate, harnessing the cooperation of relatives may improve the chances of success.

12. Be aware that the Department of Health Promotion and Disease Prevention provides one-to-one counseling related to smoking cessation, women’s health, nutrition, physical activity, sexual health and HIV counselling. Be aware that the department also holds group sessions for smoking cessation and weight reduction, and be ready to refer patients to these programmes. Be familiar with the wealth of publications for health promotion (e.g. patient information leaflets) freely available from the Department of Health Promotion and Disease Prevention, and be ready to use them in day-to-day work with patients.⁴

13. Apply the principles of immunisation and vaccination, and have thorough knowledge of the compulsory free national immunisation schedule and other optional immunizations available on the private market.¹⁰

14. Provide sound advice, appropriate immunizations, and effective prophylaxis (e.g. for malaria) to patients who intend to travel to countries where there is risk of infection. Be able to access up-to-date information relating to travel either from the National Immunisation Section of the Primary Health Care
Dept. or else from websites such as that of the Centers for Disease Control and Prevention (http://www.cdc.gov/travel/default.aspx).

15. Appreciate the importance of disease surveillance and comply with the legal obligation of notifying infectious disease, cancer and congenital anomalies in accordance with the Public Health Act. Understand the importance of ethical tensions between the needs of the individual and the community, and act appropriately.

16. Explain the meaning of the terms ‘sensitivity’ and ‘specificity’ as applied to a screening test. Understand the benefits and risks of screening programmes, Wilson’s Criteria\(^{10}\), and the responsibility of the GP not to medicalize normality. Be well-informed about the national screening programmes in place.

17. Base interventions on sound up-to-date medical evidence, and be able to assess the validity of such evidence.

18. Perform an appropriate physical and mental examination prior to issuing a certificate of fitness-to-attend-school for young children, a certificate of fitness to hold employment (or ‘free from infectious disease certificate’), or a certificate of fitness-to-travel and draw up such certificates properly.

19. Describe the Maltese legal requirements for holding a driving license, how to perform a suitable physical and mental examination for this purpose and how to properly fill in the medical report section of the application. Understand that he/she carries a great moral and legal responsibility towards society in this instance, and should never give in to pressure coming from some patients to ignore or falsify medical findings.

20. Describe the medical requirements for holding a diving license, performing an appropriate physical and mental examination for this purpose and filling in the medical report properly. Make appropriate recommendations to the patient regarding the risks for health involved if he/she goes diving.

21. Appreciate that the healthcare provider and the healthcare system also impact on the quality and comprehensiveness of delivery of care. Factors that help include: a manageable GP workload; continuity of care; comprehensive medical records; a comfortable working environment; state-of-the-art equipment; ancillary staff; easy accessibility for patients; an appointment system, and a recall system for follow-up. All this should come at a reasonable fee for a paying client.

22. Appreciate that many patients regard their healthcare provider as a role model.
Disease Prevention:

- Brief interventions and referral for smoking cessation in primary care (NICE)
- Physical Activity: a guide for professionals (Health Promotion and Disease Prevention Dept.)
- Increasing Physical Activity (NICE, WONCA)
- Obesity in Adults and Children (NICE)
- Immunisation and Health risks for Travellers overseas (British National Travel Health Network and Centre)
- Health advice for travellers (Medical Advisory for Travellers Abroad, UK)
- Guidelines for malaria prevention in travellers (Health Protection Agency, UK)
- Guideline to Effective Immunisation (Health Promotion Dept; Dept. of Pharmacy, University of Malta 2006)
- Antenatal and Postnatal Care (NICE)
- Breastfeeding Policy for Malta (Department of Health)
- Nutrition (Health Promotion and Disease Prevention Dept.)
- Alcohol Misuse (Health Promotion and Disease Prevention Dept.)
- Skin Cancer (Health Promotion and Disease Prevention Dept.)
- Falls in the Elderly (NICE)

Screening:

- Diabetes (Diabetes UK)
- Hypertension (NICE)
- Hyperlipidaemia (Joint British Societies)
- Cervical Cancer (UK NHS Cancer Screening Programmes) 12
- Breast Cancer (UK NHS Cancer Screening Programmes) 13
- Bowel Cancer (UK NHS Cancer Screening Programmes) 14
- Sexually Transmitted Disease in at risk (British Health Protection Agency)
- Pain in older people (RCGP, British Geriatrics Society, British Pain Society)
- Antenatal and Postnatal Care (NICE)
- Child growth (Child Growth Foundation, UK)
- Breast Cancer (NHS cancer screening Programmes, Cancer Research UK)
- Osteoporosis screening (ESCEO, RCGP, NICE, Bone and Tooth Society of GB)
- Aortic Aneurysm (NICE, US Preventative Services Task Force)
Teaching and learning resources

**Work-based learning – in primary care**

- Observation and practice of skills such as measuring abdominal circumference and BMI; measuring blood pressure; giving immunization; taking cervical smears; examining breast; performing a digital rectal examination; interpreting laboratory results; interpreting bone mineral density readings etc.
- Tutorials on principles of disease prevention and screening; national programmes; skills of disease risk assessment; infectious disease notification etc...
- Analysis of video recorded consultations with a preventative or screening agenda (whether initiated by patient or doctor) e.g. immunization; smoking cessation; weight loss.
- Random case analysis of consultations with a preventative or screening agenda
- Using Educational Portfolio to record learning points and reflections

**Work-based learning – in secondary care**

- Observation and practice of skills such as taking cervical smear, examining breast, performing a digital rectal examination, interpreting laboratory results, etc.
- Using Educational Portfolio to record learning points and reflections

**Other learning opportunities**

- Private study of current international guidelines, national programmes in disease prevention and screening, journals and internet resources
- Interactive half-day release programme sessions on disease prevention and screening
- Interactive courses (including role-play) for teaching brief interventions in counselling to promote healthy changes in behaviour
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with public health doctors, nurses, pharmacists, etc…
Formative Assessment

- Analysis of recorded consultations with a preventative or screening agenda
- Mini-clinical examination e.g. measurement of BP, abdominal circumference and BMI
- Directly observed procedures e.g. cervical smear, digital rectal examination
- Case-Based Discussion on consultations with a preventative or screening agenda
- Analysis of Educational Portfolio for cases with a preventative or screening agenda
- Patient Satisfaction Questionnaire.

References:

10. Guideline to Effective Immunisation (2006) Health Promotion Dept; Dept. of Pharmacy, University of Malta
(last accessed July 2008)
(last accessed July 2008)

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 15.5 –

*Healthy People: promoting health and preventing disease*

Further Reading:


Internet Resources:

- U.S. Preventive Services Task Force – recommendations updated regularly:
  http://www.ahrq.gov/clinic/uspstfix.htm#Recommendations
- International Guidelines updated regularly:
  http://www.clinicalguidelines.org/
Chapter 19.

Information Management and Technology

Author: Dr Daniel Sammut MD MMCFD

Date: 23rd January, 2009

Reference Document:

RCGP Curriculum Statement No. 4.2 – Information Management and Technology
Introduction

Rationale

General practice involves the handling of large amounts of information such as patient medical records, prescriptions, referral letters, rosters, financial spreadsheets and reports, wages etc... Meticulous data input, secure storage, and efficient retrieval are essential for high quality information management.

Traditional paper records and filing systems are bulky, time-consuming, sometimes illegible, and difficult to organise, access and update. Thus, it is not surprising that general practice increasingly relies upon electronic storage of data. For this reason, every modern GP should be familiar with computing up to European Computer Driving License (ECDL) level.

Good medical records are of fundamental importance to good patient care. The electronic patient medical record (EMR) uses a coding system (e.g. using International Classification for Primary Care ver.2 - ICPC2) to code encounter date and type, doctor identity, the patient’s symptoms, clinical signs, diagnostic and therapeutic interventions, diagnoses, investigations and their results, treatment given and referrals. The advantage of coding is that data is well-organised within the medical record, and can be used to create a chronological patient problem list that gives a quick overview of the patient’s medical history. The software should permit entry of red flag reminders (e.g. drug intolerances for that patient). The results of investigations can also be seen at a glance, with highlighting of abnormal ones. Repeat prescriptions can be printed at the touch of a button, and a facility for alerts of potential drug interactions is often available. Custom made patient information leaflets may also be printed. A good EMR is thus a valuable asset in disease prevention and screening, and in the management of chronic disease.

Entering data in a structured form into an EMR helps the GP to organize his/her thoughts whilst making a diagnosis and managing a case. It also encourages a holistic and comprehensive approach to patient care. Once a doctor learns how to use an EMR, he/she usually comes to rely on it for information retrieval, instead of on recall from memory. Therefore, if the data is inaccurate, incomplete or ambiguous, potentially serious consequences may arise for the patient. All data handlers should make every effort to ensure impeccable data entry. In the event of litigation, a doctor who has not kept a proper record would be unable to defend him/herself. Needless to say, an identified data manager should take regular back-ups of the practice data to ensure its safety. A good EMR should also allow easy updates.

The EMR can be used to generate frequency reports (for any parameter), disease registers and practice activity reports. In addition, it is greatly facilitates
searches for clinical audit. A practice secretary uses an EMR to enter patient details, organise rosters and book appointments for GPs.

Electronic data is automatically updated and can be shared between GP practice partners using networked workstations. This allows for continuity of care, even if the patient visits different doctors within the same practice.

Information technology undergoes constant evolution. Newer technologies and gadgets such as palmtop computers, laptop computers, digital cameras, video cameras, wireless networks and video-conferencing allow storage, retrieval and sharing of information virtually everywhere, be it in the form of text, photograph or video.

The internet is a mine of medical information. Doctors can use it to obtain real-time information to help them diagnose and manage a case at hand. Relevant examples include information about drugs, travel medicine, international guidelines, online medical atlases and health alerts.

The Maltese Government has introduced the e-government concept whereby many government services can be readily accessed through the internet by doctors and the general public via the site www.sahha.gov.mt. Examples include application and notification forms, diet sheets, requests for information, outpatient appointment bookings and periodic health reports.

Maltese health care priorities

Unfortunately, to date there is no standard EMR in use in the GP practices of Malta and Gozo. Since the start of the millennium, about 20 local doctors have been using TRANSHIS, a software developed by the Department of Family Medicine of the University of Amsterdam, and used extensively in different countries.\textsuperscript{4} It was introduced to Malta under the auspices of the Malta College of Family Doctors and Prof. J.K.Soler has been the indefatigable driving force behind its local implementation. Recently, local practices have successfully upgraded to a newer version that uses a Microsoft Windows platform. This version is more user-friendly than the previous DOS-based system and it makes data searching easier. Ideally, the same EMR would be in use in general practice throughout the islands, in order to allow standardisation of care, data comparison and sharing.

In the pre-budget document for 2009, the current Maltese Government stated that further investment in ICT for the health sector is a national priority.\textsuperscript{5} Seamless sharing of blood test results, radiology reports and digital X-rays online is available in the public health service, both at the primary care and secondary
care levels. It is planned that these services be extended to the private sector in the near future.

Whilst keeping data about his/her patients, the GP must protect their confidentiality. The right to privacy is a fundamental human right, which is safeguarded and enshrined in our Constitution. The Data Protection Act of 2001 provides for the protection of individuals against the violation of their privacy by the processing of personal data and for matters connected therewith or ancillary thereto. Every GP should make sure that data can be accessed and used only by authorised and properly trained personnel. This should be done by physically locking rooms when workstations are not in use, and by using layered password protection. The passwords should only be divulged to the right persons, and ideally they should be changed periodically.

The Data Protection Act provides that a data subject has a right to access his own personal data. On writing to the doctor/practice, the patient is entitled to receive written information which must, however, give a clear and fair account of the personal data held about him/her, without excessive delay and without expense. This does not mean that he/she has a right to access the file or any copy contained in such file. The information shall indicate:

- the actual personal data which is processed;
- the source of the information;
- the purpose of the processing;
- any recipients or categories of recipients of the data;
- logic involved in any automatic processing of data relating to the patient.

The law places a nominal annual notification fee for data handling on practices that employ ancillary staff, but doctors who do not employ staff are exempt.5

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in relation to practice management. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Recognise the importance of efficient use of information management and technology for quality health care, primary care management and teaching in general practice.

2. Have ICT skills at European Computer Driving Licence (ECDL) standard including knowledge of basic concepts, computer use, file management,
word processing, use of spreadsheets, use of databases, making a teaching presentation, and internet communication.

3. Use the computer in the consultation whilst maintaining rapport with the patient. Ensure that the use of IM&T does not conflict with the holistic and patient-centred approach to patient care.

4. Demonstrate awareness of coding systems in current use for effective record-keeping.

5. Use the practice clinical system effectively and routinely for tasks such as entering clinical data, prescribing, processing pathology results and referrals.

6. Use IM&T in the management of multiple complaints and pathologies, both acute and chronic health problems, e.g. by effective use of the medical record.

7. Demonstrate the use of disease registers and call/recall systems within the practice to the benefit of patient care.

8. Recognise and respect the patient’s right to confidentiality. Describe the legal requirements for data protection and the practical ways to achieve it.

9. Demonstrate how to facilitate patient access to their medical record and enhance patient understanding of privacy and consent issues concerning the shared electronic health record.

10. Share patient information with other health professionals or organisations concerned with patient care, after asking for the patient’s consent.

11. Explain how clinical record systems can be used for personal/practice audit and data analysis.

12. Demonstrate how to use the EMR to gain an understanding of the health needs of the community through the epidemiological characteristics of its population.

13. Demonstrate effective use of interagency systems such as pathology links, digital radiology links and GP–GP record transfer.

14. Demonstrate how to use NHS electronic booking systems to tailor healthcare provision to the needs of the individual patient.

15. Effectively use the internet to search for the latest information to aid diagnosis, evidence-based management and referral.

17. Use IM&T to develop and maintain continuing learning and quality improvement.

Teaching and learning resources

Work-based learning – in primary care

- Observation and practice in the use of IM&T in day-to-day activities such as: using patient medical records; entering investigation results; repeat prescriptions; writing referral letters, certificates and reports; networking; accessing investigation results online; online booking of hospital appointments; epidemiological analysis; drawing up disease registers; clinical audit; the organization of rosters; accounts spreadsheets; communicating with third parties through e-mail; internet searches; teaching presentations; keeping back-ups; data protection
- Tutorials on principles of IM&T and the use of the EMR
- Using Educational Portfolio to record reflections and learning points.

Work-based learning – in secondary care

- Observation and practice in the use of IM&T in day-to-day activities such as: using patient medical records; entering investigation results; prescriptions; writing discharge letters, certificates and reports; networking; accessing investigation results online; clinical audit; the organization of rosters; communicating with third parties through e-mail; internet searches; teaching presentations; data protection.
- Using Educational Portfolio to record reflections and learning points

Other learning opportunities

- Interactive half-day release programme sessions are an ideal group learning setting to explore concepts of IM&T
- Private study of internet resources on IM&T
- Informal discussions with trainer and peers
- Learning opportunities with other professionals such as IT experts, practice manager, secretary, receptionist.
Formative Assessment

- Analysis of the Educational Portfolio for learning points related to IM&T
- Demonstration of the use of the EMR, word processing, spreadsheets, internet searches, e-mail, teaching presentations.

References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 4.2 – Information Management and Technology*
Further Reading:


Internet Resource:

- TransHis for Windows: available for download at: http://www.transitieproject.nl/download.htm
Chapter 20.

Teamwork, Leadership and Referral

Author: Dr Daniel Sammut MD MMCFD

Date: 16th January, 2009

Reference Document:

RCGP Curriculum Statement No. 4.1 – Management in Primary Care
Introduction

Rationale

Traditionally, Maltese GPs in private practice have worked ‘solo’, and without the support of ancillary staff (except possibly that of their spouse and/or the community pharmacist). These doctors work in isolation and this may contribute to stress and burnout.¹

The majority of European GPs now prefer to work in group practices, although this model is slow to be taken up in Malta.² To work in a group setting, the doctor must have an honest and trusting relationship with his/her colleagues. Working in partnership encourages exchange of ideas, sharing and learning of new skills, teamwork and social interaction between GPs. Properly delivered feedback also helps the doctor to develop as a whole person.³ Every doctor has the moral obligation to report to the Medical Council any colleague who is practising negligently or unethically.

A group practice holds regular practice meetings with the aims of sharing experience, identifying practical and interpersonal difficulties, and taking decisions related to practice management. Meetings are held either between GP partners alone, or together with other practice staff. A clear agenda for the meeting and proper allocation of dedicated time are important factors.

Good communicative and leadership skills are essential for such meetings to succeed. All participants at the meeting should know who is chairing the meeting, what ground rules to follow to express themselves, and what the decision-making process involves. The relative legitimate authority of the participants (unless they have equal status e.g. partners) should be clear from the beginning and respected throughout.

An interdisciplinary approach improves the quality of patient care. Paramedical staff may be directly employed by the practice itself (e.g. practice nurse, health care assistant, secretary, practice manager) or may work in the same area (e.g. community nurse, midwife, pharmacist, dietitian, radiographer, podologist, physiotherapist, occupational therapist, speech and language pathologist, clinical psychologist). The family doctor needs to precisely understand the roles of the various members of the primary care team so as to be able to refer his/her patients to the health care worker who can provide the best care.

Familiarity with organisational psychology is an asset for the GP. Excellent communication skills are required to establish a respectful professional relationship with employed staff and to ensure reliable communication channels and teamwork. Staff members may need to be appraised, given moral support, and occasionally disciplined. A culture of accountability should be ingrained in all
employees, and also in their employer/s. Social events and teambuilding exercises are helpful to increase the cohesion within the practice team.

This chapter is complemented by: Chapter 17 – Chronic Disease Management and Chapter 21 – Practice Management.

**Maltese health care priorities**

It is impossible for the family doctor to provide complete medical care by him/herself. Some patients have conditions of a nature and/or severity that require referral to secondary care doctors or other agencies. To be able to refer sensibly, GPs should have a broad knowledge of the services available locally in hospital and in the community, whether owned by the public, private or voluntary sectors. Knowledge of the proper referral route and the approximate waiting time to access a particular service is also very useful in guiding patients appropriately. Trainees undergoing vocational training will be exposed to a variety of hospital departments, with ample opportunities to familiarise themselves with medical and paramedical colleagues in secondary care, and the services offered in the Maltese islands.

The GP should be able to write a referral letter of high quality, preferably typed and printed. The referral letter should be legible and concise, yet contain all relevant information. The use of an electronic medical record, voice-recognition software and the support of a secretary would facilitate this task. Colleagues working in secondary care have also started to give patients very helpful and detailed printed reports to forward to their family doctor on discharge from hospital.

The family doctor should be prepared to act as an advocate for the patient when the latter is not given the best available treatment, whether due to poor communication or injustice. The GP should respect him/herself as a specialist and expect to be likewise respected by third parties.

The current Maltese Government is committed to reform primary care, introduce patient registration in general practice and strengthen the gatekeeper role of the family doctor. Patient registration would place clear responsibility on the GP to provide a comprehensive primary care service for his/her registered practice population. A quality service can only be realistically achieved through teamwork complemented by the services of paramedical staff.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in relation to practice management. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Coordinate care with other professionals in primary care, and with other specialists.

2. Explain how quality of care may be improved by employing auxiliary staff.

3. Describe the roles of all members of the primary care team.

4. Demonstrate the ability to coordinate a team-based approach to the care of patients.

5. Demonstrate the ability to be an effective member and leader of a team.

6. Understand the role of team dynamics in the functioning of an organization.

7. Describe strategies for effective communication within the practice organization.

8. Evaluate own preference for role within teams and in interaction with others.

9. Be self-aware and understand that his or her own attitudes and feelings are important determinants of how he or she manages and leads.

10. Deal with members of staff with honesty, respect and decorum.

11. Organise and chair an effective meeting.

12. Delegate tasks effectively.

13. Understand and participate in the motivation of staff.

14. Identify ethical aspects relating to leadership in primary health care, e.g. approaches to involving staff and patients in decision-making.

15. Demonstrate how to write a referral note of high quality.

16. Describe the local facilities for referral including community and hospital services, run by the government, private sector or voluntary organizations.
17. Outline the referral pathways and the approximate local waiting times for the patient to access such services.

18. Appropriately refer patients to other health care workers.

19. Be prepared to act as an advocate to the patient.

Teaching and learning resources

Work-based learning – in primary care

- Observation of how the primary care team functions in day-to-day activities such as: the various roles of the members of the practice team; communication channels; interactions between staff members; hierarchies; practice meetings; work ethos; accountability; appraisal of staff; setting rules; disciplinary measures, etc…

- Observe and practice referral to hospital and community services run by the government, private sector and voluntary organizations

- Tutorials on principles of teamwork, leadership and referral

- Organise and chair a practice meeting to practise leadership and observe team dynamics (possibly video-recorded)

- Random case analysis of scenarios related to interaction with staff, handling complaints and disagreements, etc…

- Using Educational Portfolio to record reflections and learning points.

Work-based learning – in secondary care

- Observation of an interdisciplinary approach to patient care including the various roles of the members of the hospital team; communication channels; interactions between staff members; hierarchies; ward meetings; work ethos; accountability; setting rules; disciplinary measures, etc…

- Observe and practice referral to hospital and community services run by the government and voluntary organizations

- Tutorials on principles of teamwork, leadership and referral

- Attending a staff meeting to observe team dynamics

- Using Educational Portfolio to record reflections and learning points.
Other learning opportunities

- Interactive half-day release programme sessions are an ideal group learning setting to explore concepts of leadership, teamwork and referral. Team building exercises and role play may be used to teach the first two skills.
- Private study of local referral agencies
- Chairing formal discussions with peers
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals such as colleagues in secondary care, nurses, midwives, pharmacists, podologists, physiotherapists, occupational therapists, speech and language pathologists, dietitians
- Learning opportunities with managers, receptionists, secretaries, etc…
- Social events and teambuilding exercises with other members of the primary care team
- Active participation in groups, organisations, associations and committees
- Leading and/or participation in community projects to encourage team building / team work and improve leadership skills.

Formative Assessment

- Analysis of the Educational Portfolio for learning points related to leadership, teamwork and referral
- Analysis of video recorded meetings chaired by the trainee
- Discussion of scenarios related to enforcing rules in the practice, instilling a culture of accountability and respect, and taking disciplinary measures when necessary.
References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 4.1 – Management in Primary Care*

Further Reading:

Chapter 21.

Practice Management

Author: Dr Daniel Sammut MD MMCFD

Date: 14th January, 2009

Reference Document:

RCGP Curriculum Statement No. 4.1 – Management in Primary Care
Introduction

Rationale

The majority of Maltese GPs work in private practice, at least part-time. Private general practice is a business, and the doctor needs to develop basic managerial skills to address the following needs:

- acquisition of personal transport and maintenance
- use/rent/acquisition of premises
- cleaning and maintenance of premises
- furnishing and non-medical equipment
- acquisition of medical equipment and maintenance
- acquisition of IT equipment (hardware and software) and maintenance
- stocking of medical consumables
- stocking of stationery (including official forms and prescriptions)
- communicating with the public (phone, mobile, leaflet, website)
- reasonable fee-for-service structure
- time-management: clinic and appointment times, time for home visits
- petty cash, collection of monies and issue of receipts
- accounts and payment of bills and tax
- health and safety issues
- security (premises, car, cash, personal)
- patient confidentiality and data protection
- handling patient complaints and significant event audit
- strategy formulation
- project management
- organisational audit
- ± insurance (premises, health, malpractice)
- ± employment of ancillary staff and human resource management
- ± locums
- ± specialized clinics

In the UK, particularly in group practices, most of the above functions are carried out by the practice administrator/manager, so as to allow GPs to focus on clinical work.

Human resource management is very labour intensive. The GP needs to follow quality criteria and use specific skills to select and recruit the right persons/s, supply a realistic job description, and draw up a good contract of employment. Logistic challenges include the fair organisation of rosters, ensuring a safe and healthy physical environment, and the provision of back-up for staff absence. Excellent communication skills are required to establish a respectful professional
relationship, ensure reliable two-way communication and teamwork, maintain discipline, and sometimes offer pastoral care.¹

To better learn about practice management, it is recommended that all trainees be attached with a private GP during their vocational training, at least for a short period of time.

This chapter is further complemented by the following sections of this curriculum:
- Chapter 17 – Chronic Disease Management;
- Chapter 19 – Information Management and Technology
- Chapter 20 – Teamwork, Leadership and Referral.

### Maltese health care priorities

The public primary health care is based in the Health Centres, where a number of doctors are employed by the government. Here, the Senior Medical Officer has the role of managing the day-to-day running of the health centre, including the management of human resources and the handling of patient complaints.

Traditionally, Maltese GPs in private practice have worked ‘solo’, and without the support of ancillary staff (except possibly that of their spouse and/or the community pharmacist). These doctors have delivered sterling work even though they work in isolation for very long hours almost every day of the year. The advantages of solo practice are total independence and minimal expenses. However, it often puts great strain on the doctor him/herself, and also on his/her family. Moreover, an overworked GP may have little time or energy to dedicate to lifelong learning.

Most European GPs now prefer to work in group practices.² A group practice is a partnership between doctors and it has unlimited liability (unlike a company). Doctors working in a practice may either be partners (of equal or unequal status) or salaried GPs employed by the practice. The latter do not hold a share in the earnings of the practice. It is only in the last decade that this model has been introduced to Maltese family medicine and to this day, only a couple of true group practices exist in private practice on these islands.

A group practice setup carries the following advantages: ³

- it allows for easier provision of a continuous health service, including after hours
- it permits the doctors to share workload and income
- it allows the doctors to take paid leave (illness/vacation/study)
- it allows pooling of resources for renting/buying premises, buying/maintaining equipment or employing staff
- it motivates GP partners to invest energy because they own a share of the practice
- it uses one electronic medical record networked at different work-stations to ensure continuity of care
- it encourages cross-fertilisation of ideas, teamwork and social interaction between GPs
- it facilitates interdisciplinary care
- it facilitates in-house CME and vocational training activities

The current Maltese Government is committed to reform primary care, introduce patient registration in general practice and strengthen the gatekeeper role of the family doctor. These steps would assist the work of the GP because he/she would have a clearly demarcated practice population and would be empowered to intervene to provide comprehensive services for cure, care and prevention in that population, utilizing available resources to maximum benefit. At the same time, the family doctor will probably be obliged to prove that he/she is giving the best service possible. This would entail the provision of continuous medical cover, participation in continued medical education, the setting up of practice protocols and clinical audit. The setting up of group practices would facilitate these tasks enormously.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor’s role in relation to practice management. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Recognise and describe the managerial aspects of general practice.
2. Manage own time effectively.
3. Explain how the practice functions as a business and the implications various activities and expenses have for profitability. Describe the financial aspects of practice, such as sources of income and expenditure, management of funding, use of premises, marketing and the interpretation of accounts.
4. Appreciate the need to reconcile the needs of the individual GP and practice with the needs of the wider health economy.
5. Recognise the impact of the local community, including socio-economic factors, geography and culture, on the workplace and patient care.
6. Appreciate the structure of the local healthcare system, its economic limitations and how resources are allocated. Recognise that any variation in resources and facilities may affect the delivery of health care.

7. Explain the benefits of involving the public and communities in managing health services, e.g. encouraging patient participation in decisions about the local provision of health care through the use of patient questionnaires.

8. Understand the need to reconcile health needs of individual patients with the health needs of the community in which they live, balancing these with available resources Give examples where conflicts of interest might arise in the commissioning and provision of services for patients.

9. List the advantages and disadvantages of a group practice.

10. Describe the various means by which GPs are contracted and the key features of contractual agreements.

11. Explain how a continuous medical service (including after hours) can be realistically achieved (in a group practice or using locums).

12. Critically appraise the organisational systems of the practice. Demonstrate the ability to improve the quality of health care delivered to patients by the practice.

13. Explain how quality of care may be improved and money saved by employing auxiliary staff.

14. Outline the legal duties, rights and responsibilities of the doctor as employer and the fundamental features of human resource management.

15. Be self-aware and understand that his or her own attitudes and feelings are important determinants of how he or she manages and leads.

16. Be aware of health and safety issues at the workplace.

17. Describe the factors to be considered in the choice of premises for a clinic.

18. Describe the basic equipment (medical and non-medical) required to set up business in private practice.

19. Describe what medical consumables should be stocked in a clinic and how to manage the stock.

20. Successfully manage a project from conception to implementation to evaluation.
Teaching and learning resources

Work- based learning – in primary care

• Observation of how a GP practice is managed in day-to-day activities such as: how the premises are utilised to maximum potential; the furnishing of the clinic; the various roles of the members of the practice team; the organization of rosters; health and safety issues; communicating with the public and marketing; the commissioning of new equipment; project management; stocking of stationery and medical consumables; handling of finances; issue of salaries; keeping of accounts; and issue of receipts.

• Tutorials on principles of practice management.

• Attending a practice meeting between GP partners to observe information gathering, discussion and decision-making.

• Using Educational Portfolio to record reflections and learning points.

Other learning opportunities

• Interactive half-day release programme sessions are an ideal setting to explore concepts of practice management through group learning.

• Private study of books, journals and internet resources on practice management and accounting.

• Informal discussions with trainer and peers

• Learning opportunities with other professionals such as managers and accountants.

Formative Assessment

• Analysis of the Educational Portfolio for learning points related to practice management

• Discussion of how to manage human resources, commission new equipment or manage a project

• Evaluate a pratice project implemented by the trainee
References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 4.1 –

Management in Primary Care

Further Reading:


Internet Resource:

- Management in Practice: www.managementinpractice.com/default.asp
Chapter 22.

Personal and Professional Development

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC (ICGP)

Date: 16th June, 2009
Introduction

*I have to change to stay the same’

(inscription on facade of the Rotterdam Academy of Fine Arts)

The above may sound paradoxical, but when “the same” means staying in the lead and thriving on excellence, this statement lends itself perfectly to this module.

Rationale

Personal and professional development is established as an essential requisite in the making of good doctors. Embedded in the definition of a general practitioner by EURACT/WONCA is....

‘They [GPs] must take the responsibility for developing and maintaining their skills, personal balance and values as a basis for effective and safe patient care.’

This forms a crucial element in the GP training programme, setting for the novice GP solid foundations to achieve competency, as well as providing a clear direction for a lifelong commitment to development on a personal and professional basis in the pursuit of excellence. It is, in essence, a guide providing a holistic and balanced dimension to being Good Doctors and fulfilled human beings.

In line with Maslow’s hierarchy of needs, achievement and self-realization build on fulfillment of personal needs, with lacunae in one level having the potential to jeopardize and destabilize other domains of the individual’s life.

‘Health,’ ‘whole’, and ‘healing’ all come from the same root. In the course of a medical career we need knowledge and skills for our modern role in biomedicine. And we heal because of who we are and not because of what we do.’ (McMullen B.) Taking care of ourselves will help us care for others better through being better carers.

Maltese health care priorities

The MCFD sees CPD as the way forward for practising GPs. It encourages continued medical education and although CPD is not mandatory, many doctors are already active participants in the process. College accreditation for status of Specialist in Family Medicine is only granted if a GP accrues 27 units of credit per year by participating in both passive and active educational activities. The MCFD offers a wide range of accredited educational opportunities to fulfill this responsibility. There are neither financial rewards for successful accreditation nor
penalties for GPs if requirements for CPD are not met. Whilst satisfying statutory requirements, self-directed CPD and professional self-regulation remain highly desirable.

**Personal Development**

Personal development is a complex issue. The underlying personality of the individual trainee, his/her life experiences outside of work, as well as those experiences relating specifically to their training, may have a major influence on personal development. It is a lifelong process that is unique to each trainee and encompasses dimensions of self care, self awareness and self-directed learning. Assertiveness, self-confidence, work-life balance, stress management, avoiding burnout and holistic approach to care are important elements in self development.

**Self-awareness**

The ability to conduct oneself as a reflective and accountable practitioner including:

- seeking out sources of informed criticism and feedback
- reflecting and responding to feedback appropriately
- able to question own competence and know its limits
- evaluating own capabilities and personal effectiveness.

**Self-Directed Learning**

This is the ability to manage own learning as demonstrated by:

- searching out and selecting appropriate learning resources of all types
- making use of all available technical aids
- employing appropriate and effective study skills
- recognising limitations of current personal understanding and capabilities
- identifying areas needing further development and study
- setting realistic and appropriate personal learning goals
- setting challenging personal learning goals as a basis for personal growth
- be prepared to change on both personal and professional levels.

**Self-Care**

Being a GP is very demanding and taxing both physically and mentally. Looking after oneself is fundamental and as a GP trainee, training will be important in the following areas:

- recognition of the pressures of a demanding professional life on health, well-being and relationships with others and the need to maintain a balance between personal, professional and social goals and activities
- attention to lifestyle, diet, exercise and relaxation
- taking care of close relationships
- making use of available help and advice in stressful circumstances
• recognition of the hazards of self-medication or substance abuse in dealing with stress.

Balance of Personal and Professional Life
Most of us will attest that this is no easy formula! As defined by WorkSmart "Work-life balance is about ensuring work doesn't take up more of your life than it should."
Contrary to common belief, doctors are people first and doctors second. As people, we have children, illnesses, family crises, and other events that at times require serious life decisions. Much beyond our control, work impacts and spills onto the lives of our close circle of family and friends. Most of the time they need to be very accommodating and understanding since our patients’ needs appear to constantly occupy the top of our agenda. Furthermore, the Maltese situation has traditionally featured a dangerous combination of pampered patients and workaholic solo GPs.

Avoiding Burnout
Burnout is "a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are emotionally demanding." The first strategy for preventing burnout is to be aware of it as a potential problem, with prevention being our own personal responsibility. Being able to say no to unacceptable requests, injecting variety into work routines, taking frequent small breaks and having fun can help avoid the charcoal effect.

Assertiveness
Assertiveness can boost self-esteem, build confidence, reduce personal stress levels, and help one get as much from their working environment as possible. Communicating assertively can lead to happier working conditions, lower stress levels, and greater performances at work. Assertiveness involves individuals treating themselves and others as equals and emphasises the importance of individuals taking care of personal rights, needs and responsibilities. The aim of assertive behaviour is to ensure that the rights and needs of the self are protected and satisfied while still equally considering those of others. Developing self-esteem, confidence, and healthy coping behaviours is also essential for our patients.

Confidence
Confidence, a quality associated with successful individuals, may best be described as an assurance arising from a belief in yourself and your abilities. Following, can help boost confidence:
• getting feedback from trusted sources
• embarking on a good mentoring relationship
• identifying areas for improvement.
Stress Management
Long working hours, high workload, and pressure of work are known to generate stress with consequent detrimental effects on the personal lives of doctors. Engaging in regular physical activity and keeping active in interests outside the medical field are good stress busters. Balint group meetings may help ease stress arising from heartsink consultations or those generating conflicting and turbulent emotions.

A Holistic Approach
The development of a doctor’s personal qualities is complementary to development in the professional sphere. Invoking the philosophy of Albert Schweitzer ‘Be a good doctor by being a good human being’ reinforces the fact that not only looking after oneself is important to ensure personal development, but that this is also inextricably linked with being a good doctor. Holistic personal development engages the different attributes in cognitive, emotional and spiritual dimensions. With cognitive intelligence involving our ways of thinking, and emotional intelligence is about feeling, then spiritual intelligence (SQ) is about being. One of the qualities of SQ is wisdom and includes knowing the limits of your knowledge. Other ingredients are values such as courage, integrity, intuition, and compassion—all important qualities for the doctor aspiring towards professionalism. Spirituality is an essential component of a holistic approach to life and work. Whilst it finds expression in creativity and all forms of the arts, its expression in the context of caring makes for humanely effective and compassionate dialogue in consultations.

Professional Development
Keeping up to date through Continuing Professional Development (CPD) is a professional responsibility for all doctors. CPD assists doctors to maintain and improve their standards across all areas of their practice, and encourages and supports specific changes in practice and career development. It promotes good medical practice and protects patients from substandard practice.

Good Medical Practice for General Practitioners states that:
"You must keep your knowledge and skills up-to-date throughout your working life. You should be familiar with relevant guidelines and developments that affect your work. You should regularly take part in educational activities that maintain and further develop your competence and performance."

Planning and Recording CPD
Educational activity will be planned in advance through a Personal Development Plan (in the Educational Portfolio) and developed at appraisal which is focused on learning outcomes. These plans identify the GP trainees’ educational needs and document and hence demonstrate that the identified needs have been addressed.
**Personal Development Plan goals**
These should fit with the SMART objectives, meaning that the tasks should be:
- **Specific** - specified learning activities, not general statements
- **Measurable** - possible to assess whether they have been achieved
- **Attainable** - possible to achieve
- **Realistic** - within the doctor's capability
- **Timed** - agreed time for achieving and reviewing

CPD should be recorded in a portfolio that describes the GP’s personal learning plan, the learning undertaken with some reflection on how the GP’s practice has changed as a result, and evidence of how the GP has kept up to date with new and changing information. The principle of CPD is that it should be relevant to the doctor's practice, so it should:
- Take into account the context and environment of their practice
- Explore the benefits of learning across professional disciplines and boundaries.

**Educational Portfolio**
The Educational Portfolio contains information about the doctor’s current practice, educational activities and any available feedback on performance. This is then used to prioritize and direct the next PDP, and to provide evidence that the PDP is being addressed.

The Educational Portfolio may contain:
1. An up-to-date curriculum vitae
2. Current posts, roles and responsibilities; both in the practice and outside
3. Practice profile - demographic details that perhaps highlight areas for concern/development
4. Personal developmental goals (medical and non-medical), each with a stated time period
5. Evidence of personal self analysis:
   - Learning styles assessment
   - Myers Briggs and/or Belbin personality assessment
   - Copy of minutes of annual appraisal
   - Reflective Diary (can include planned educational activities for the future)
   - Documentary evidence of methods used to demonstrate a learning need: with summaries of meetings or notes from personal study to demonstrate how the need was met
   - Significant event audit or analysis
   - Random case analysis, or clinical diary of interesting cases
   - PUNs and DENs - (Patients Unmet Needs identified in a consultation, translated into a Doctor's Educational Need)
   - Personal and practice audits
   - Video Consultation analysis
   - PACT analysis - review of prescribing habits
6. A list of educational meetings attended in the last 3 yrs, with minutes/summaries/learning points. Use to demonstrate that a previously identified learning need has been met (perhaps by a subsequent audit, or just a paragraph indicating how your practice has changed following the educational activity)

7. A retrospective evaluation of last years PDP: good and bad points; lessons learnt; which ways of addressing learning needs worked and which failed, and why.

Other CPD Initiatives
A range of initiatives support CPD for GP trainees. These include:

- **Action Learning Sets**
  Participation in action learning sets where a small group of doctors work together on real problems and issues within a stipulated time frame. This can target individual or team issues as a focus. The process of working in such groups provides opportunities for personal development, confidence building, learning to work with others, change management, and handling conflict. Questioning and reflection are central tenets of action learning sets and can also help develop leadership and managerial skills.

- **Essential Knowledge Updates (EKU):** A series of six-monthly online learning modules which include new and changing knowledge relevant to general practice.

- **Essential Knowledge Challenges (EKC) linked to EKU**

- **E-Learning:** many colleges have a customised Online Learning Environment and a range of eLearning programmes. These can be an effective medium to assist in CPD.

Good medical practice and CPD
The General Medical Council states that:

- You must keep your knowledge and skills up to date throughout your working life.
- You should be familiar with relevant guidelines and developments that affect your work.
- You should regularly take part in educational activities that maintain and further develop your competence and performance.
- You must keep up to date with, and adhere to, the laws and codes of practice relevant to your work. These are:
  - Good professional practice
  - Maintaining good medical practice
  - Relationships with patients
  - Working with colleagues
  - Teaching and training
  - Probity
  - Health.
Career Diversification and Advancement
The Maltese GP has traditionally had very few opportunities for career advancement, mainly limited to becoming Senior Medical Officers in Health Centres. Nevertheless, many local family doctors have pursued postgraduate studies, with considerable sacrifice of personal time and money, to successfully acquiring a Diploma, an MSc or a PhD in their area of interest. The MCFD has always been committed and continually involved in the organisation and/or encouragement of such initiatives, working closely with sister colleges such as the RCGP and the ICGP. It is hoped that the promised reform in primary care shall include the development of posts for GPs with a Special Interest, as well as other career paths in Medical Education and Group Practice Management.

Learning Outcomes

Although both professional and personal development are lifelong processes unique to each trainee, it is still possible to identify a number of important outcomes for the training period.

By the end of the specialist training, the trainee is expected to:

1. Be able to draw up a learning needs assessment.
2. Use reviews to develop personal and practice development plans.
3. Choose appropriate learning activities to address the identified needs.
4. Use a range of methods to monitor different aspects of care and to meet his/her educational needs.
5. Demonstrate that identified learning needs have been addressed.
6. Evaluate changes in practice to complete the learning cycle.
7. Demonstrate that personal learning from CPD is implemented in practice.
8. Demonstrate that he/she is up to date with developments in clinical practice and fit to practice.
9. Identify short and long-term career and personal plans and aspirations and work towards these by establishing realistic development plans involving relevant activities.
10. Participate fully in the life of the professional community and make use of professional and other networks of all types.
11. Recognise the importance of health and safety at work and be compliant with related safety issues.

12. Recognise personal and professional limits, and be willing to ask for help when necessary.

13. Recognise key personal motivating factors and their importance in sustaining a high level of motivation.

14. Recognise signs of personal stress and burnout, and deal with the cause/s effectively.

15. Recognise the duty to protect patients and others by taking action if a colleague’s health, performance or conduct is putting patients at risk.

16. Recognise that a lot of a doctor's work is subject to uncertainty and that effective functioning and performance as a doctor requires the ability to tolerate uncertainty and cope well in these circumstances.

**Teaching and Learning resources**

**Work-based learning – in primary care**

- Observation and practice of consultations in a community setup; this may include
  - problem solving
  - feedback through investigation results
  - observation and reflection on difficult cases
  - discussion of critical incidents
  - education by patients
  - tutorials and discussions on identified learning needs
  - random case analysis of consultations
- Analysis of video consultations to discuss issues relating to doctor-patient interactions and boundaries, confidence and assertiveness
- Using the Educational portfolio to record learning points, reflections and evaluation of change in practice brought about by CPD.

**Work-based learning – in secondary care**

- Observation and practice of consultations in a hospital setup; this may include
  - problem solving
  - feedback through investigation results
o observation and reflection on difficult cases
o discussion of critical incidents
o education by patients
o specialist opinions

- Observation of multidisciplinary interactions and teamwork, highlighting skills of respectful behaviour amongst team players and towards patients
- Using the Educational portfolio to record learning points, reflections and evaluation of change in practice brought about by CPD

**Other learning opportunities**

- Private study of articles and books and internet resources relating to personal and professional development
- Attending CME meetings as organized by the MCFD
- Attending conferences and courses locally as well as abroad, on themes related to identified learning needs
- Interacting with colleagues and other team members and patients in various setups
- Using action learning sets to work on real problems and issues within a set time frame, find solutions and make desired changes
- Following postgraduate courses of choice to further studies and develop special interests e.g. Diploma in Family Medicine, Master's Degree in Family Medicine
- Finding protected time to enable follow up of identified learning needs
- Developing oneself outside the medical arena, such as social activities, sports or the arts
- Participation in journal clubs sharing narrative based experiences as well as appreciation of different types of art
- Embarking on a mentoring relationship with a colleague
- Setting up and participating in a Balint group

**Formative Assessment**

- An active and ongoing reflective Educational Portfolio enabling the GP trainee to show that s/he is maintaining his/her skills in their practice allowing for professional development

- Evidence that learning needs as identified in CPD have been met through many strategies, including: reflective practice, audit, portfolio development, and multidisciplinary cooperation

- Analysis of interactions on video consultations, including feedback given
- Patient satisfaction questionnaire
- Multisource feedback report on professional and personal conduct
- Awareness activities and skills training programmes, designed to improve relations techniques, cognitive coping skills, and work-lifestyle modification skills (for example, time management courses or assertiveness training)

References:

- Brooks R. Confidence - an issue for doctors 331 (7517) 117
- Charlton R. Continuing professional development (CPD) and training. *BMJ* 323 (7309) S2-7309
- GMC Tomorrow’s Doctors 2
- Gray C (1998) Developing the medical mind *BMJ*; 317 (7159) 2
- McCoy R (2001) Clinical work is not the be all and end all.*BMJ*; 324 (7338) S87
- The Scottish Doctor

**Further Reading:**

- GMC: Tomorrow’s Doctors 2
- Pitts, J. *A GP Registrars guide to Personal Development Plans*

**Internet resources:**

- WorkSMART: [www.worksmart.org.uk/career/work_life_balance](http://www.worksmart.org.uk/career/work_life_balance)
- The Balint Society: [http://www.balint.co.uk/](http://www.balint.co.uk/)
- ALS projects and programmes: [http://www.revansinstitute.co.uk/](http://www.revansinstitute.co.uk/)
- General Medical Council; Good Medical Practice (2006)
- General Medical Council; Guidance on Continuing Professional Development (accessed March 2009)
- NHS Appraisals website
- PDP Toolkit; NHS Eastern Deanery, website with collected resources and links about PDPs, appraisal and good medical practice. The 'guide to PDP' link has useful examples showing how to write a PDP in relation to your learning needs.
- Learning styles; Richard Felder and Barbara Soloman: Index of Learning Styles Questionnaire, online version
- PUNS and DENS; North Thames Deanery website: PUNs and DENs as developed by Dr Richard Eve, UK GP from Taunton: [www.gplearning.co.uk](http://www.gplearning.co.uk); template for writing a PDP
Chapter 23.

Research and Academic Activity

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC (ICGP)

Date: 14th May, 2009

Reference Document:
RCGP Curriculum Statement No. 3.6 – Research and Academic Activity
Introduction

Rationale

‘We can only get the most complete, credible and useful information by studying structure, process and outcome in conjunction’ (Donabedian, 1980)

Research and academic activity are important props in the development and advancement of any scientific discipline and general practice is no exception. An ability to ask questions and answer them is also important for medical science. This art is best put to test and developed when doing research.

Research in primary care provides the general practitioner with the means to test and improve clinical practice, evaluate innovative models of service delivery and understand population data. Research on primary care provides the means to improve organisation of services and to question local beliefs or behaviours on the basis of population data.

Academic general practitioners divide their activities between teaching, research and patient care in the community. They are also involved in the postgraduate field in training doctors for clinical accreditation and in the supervision of research and research dissertations. In addition, they may be involved in relevant administration and in committee work at local, national and international levels.

Academic activity encompasses teaching and reflective practices such as significant event analysis, writing for medical journals and audit. Research generated by GPs, members of primary care teams and their patients is the source of much of the evidence base required to further development in primary care.

As these developmental processes are fundamental to the continuity of general practice as an academic specialty, ideally all general practitioners should be involved in research to various extents. Apart from motivated researchers, research needs a supportive climate and adequate funding.

Maltese health care priorities

Historically, general practice has focused on practice rather than research. Although funding for local research initiatives has only recently become feasible and is still very limited, a number of family doctors have shown keen interest in taking up research activity. They have solicited the opinion of fellow GP’s in trying to identify local topics of interest which warrant further research. Submission of
these ideas has created a pool of local research ideas, which now await the appropriate resources to allow relevant research projects to be embarked on.

To promote research, the MCFD has organised CPD meetings with themes related to Research and Evidence-Based Medicine. The Malta College of Family Doctors is honoured to have amongst its’ members a number of GP’s who have undergone training as teachers and are now facilitating the training of the GP trainees. Amongst these teachers are also some who have committed themselves to research, whilst many have engaged in various research methods, in part as a requirement for self-initiated postgraduate studies. This augurs well for the STPFM, as these trainers will be able to transmit their knowledge about and experience of research to the trainees as well as to their colleagues.

Generating good research questions and being able to use complex research methods to answer questions is not an easy task for GP trainees who are balancing learning needs with service provision. Enabling factors to encourage GP trainees to undergo research activity include:

- Encouragement to undertake research. If a trainee completes a project during vocational training, it is likely that he/she will do research later on in his/her career
- More GP trainees should be given the opportunity to observe clinician-researchers doing their work in general practice
- GP trainees should be offered the opportunity to become research fellows
- Linking the GP Training Program to a collaborative research network can help develop a group of researchers
- Provide all local GP educators and supervisors access to information resources and opportunities to participate in relevant research activities

**Learning Outcomes**

The following learning objectives relate specifically to research and academic activity.

**Primary care management**

**Research**

All GPs may be initiators, collaborators or users of research at any point in their career. In this context the minimum competence required is that of a user. As an effective user of research, the GP trainee will be able to demonstrate competence in the following areas:

- Prioritising relevant information
- Critical appraisal
- Problem framing
• Accessing evidence
• Implementing change in clinical practice
• Basic statistics
• Evaluating ethical issues and the need to have projects approved through the Bioethics Committee.

Academic activity
All GPs will be involved in teaching of other practitioners be they medical or allied health professionals. They will be able to:
• Identify learning objectives
• Use appropriate teaching methods
• Evaluate outcomes of teaching.

In addition, all GPs are expected to undertake continuing professional development. This will include, as a minimum, an ability to undertake the following:
• Significant event analysis
• Evaluation of performance across a range of clinical and non-clinical areas
• Use of reflective skills for the benefit of oneself and other practitioners.

Note: The learning objectives are based on the competency grid for academic general practice skills developed by the Society of Academic Primary Care, UK.

Person-centred care
All GPs engaging in research should comply with all research governance procedures and ethical frameworks, including the Good Clinical Practice Guidelines of the British Pharmaceutical Industry. Similarly, all GPs engaged in teaching should be familiar with and comply with the General Medical Council's guidance document The Doctor as Teacher.

When involving patients as research participants, GPs should be aware of the power differential between themselves and the participants, and ensure that participants' vulnerability is recognised and appropriately managed. This includes the provision of full information and informed consent. When introducing changes to clinical practice based on research evidence, full account should still be taken of patients' right to choose to accept new interventions.

Reflective activities should not be solely individual but to be fully effective need to involve other colleagues and members of the primary care team (e.g. by using the technique of significant event analysis). GPs should also ensure that the relevant team members jointly ‘own’ the research agenda within a practice. All participation should be voluntary and GPs should ensure confidentiality and, in particular, comply with the requirements of the Data Protection Act.
Specific problem-solving skills
All GPs should be familiar with essential components of the research process. They should be able to:

- Develop a research question
- Identify appropriate methods from a range of designs
- Be able to draw up a questionnaire
- Demonstrate basic quantitative and qualitative data analysis skills
- Draw appropriate conclusions
- Summarise results.

Specific educational and reflective skills
All GPs should be able to:

- Identify their learning objectives
- Choose appropriate methods of learning and teaching
- Use reflective skills to measure process
- Apply their learning to their clinical practice
- Identify further objectives.

A comprehensive approach
Most clinical interventions in practice are complex and require the use of multiple research methods to evaluate them. These include quantitative methods (such as randomised controlled trials) and qualitative methods (such as ‘grounded theory’). GPs should be familiar with and use the range of resources available from postgraduate and university departments. The competent GP should understand the complex processes involved in implementing change in practice. Whether the GP is an initiator, collaborator or user of research, he or she must be able to choose the appropriate change management skills to achieve the required end point.

Community orientation
With most of research being conducted in secondary care settings, the results are not necessarily applicable in general practice. All GPs must, therefore, be able to judge relevance, applicability and validity of research findings to their own practice. GPs must be able to interpret good teaching practice in the light of conditions prevalent in primary care. Other academic activity including reflective practice, will support themselves, their team and their local communities.

A holistic approach
The complexity of undertaking research or implementing research findings should not be underestimated. GPs should use the same holistic approach to such scholarly activity as they would in clinical practice.

The GP trainee should be familiar with the following:
Research methodologies

- Case-control studies
- Cohort studies
- Interviews, focus groups and questionnaires
- Meta-analysis
- Narrative-based research
- Pilot studies
- Qualitative research
- Quantitative research
- Randomised control trials
- Systematic reviews

Research skills

- Accessing evidence
- Basic statistics
- Critical appraisal
- Implementing change in clinical practice
- Prioritising relevant information
- Problem framing
- Evaluating ethical issues and the need for approval of projects through research committees

Teaching and learning resources

Work-based learning – in primary care

- Tutorials on research methodologies, skills, process and ethical issues involved
- Observation of GP’s working as clinicians and researchers
- Participation in research as research assistants
- Analysis of video recorded consultations involving patients participating in research
- Using the Educational Portfolio to record learning points and reflection
- It is envisaged that a Research Project in primary care will be introduced as part of the VTS in the near future.

Work-based learning – in secondary care

- Tutorials on research methodologies, skills, process and ethical issues involved
- Observation of different disciplines engaging in research and extracting relevant data from research
- Participation in research as research assistants
- Using the Educational Portfolio to record learning points and reflection
**Other learning opportunities**

- Private study of textbooks, current guidelines, journals and internet resources
- Half day release sessions to deal with research methods, skills and process
- Attending courses on research and research workshops organized locally or by EGPRN
- Volunteer to participate in research projects and assisting in its different phases of implementation
- Informal discussions with trainer, peers, other professionals engaging in research activity
- Delivery of teaching presentations to peers including presentation of research projects and conclusions drawn
- Writing in journals referring to research, with application of critical skills to analyse research and methodology used.

**Formative Assessment**

- Patient satisfaction questionnaires from patient involved in research projects
- Analysis of a video consultation with a patient involved in research or sharing with patient results drawn from research
- Analysis of educational portfolio for significant event audit, and reflective writing
- Observation of trainee teaching peers about medical topics possibly including research, using different teaching methods

**Reference:**

- Kljakovic, M. Developing a teaching research culture for general practice registrars in Australia: a literature review. *Asia Pacific Family Medicine* 2009, 8:6
Reference Document used as a model:

- Royal College of Family Doctors; 2007. Curriculum statement No 3.6-

**Research and Academic Activity**

Further reading:

Internet resources:

- The Cochrane Collaboration Homepage: http://www.cochrane.org/indexo.htm
- Centre for evidence-based medicine: http://www.cem.utoronto.ca/
- RCGP Research training: http://www.rcgp.org.uk/research/training/
- The Society for Academic Primary care: www.sapc.ac.uk/
- Research & Education Foundation http://www.cfpc.ca/English/cfpc/research/research%20and%20education%20foundation/default.asp?s=1
Chapter 24.

Teaching, Mentoring and Supervision

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC (ICGP)

Date: 14th July, 2009

Reference Document:
RCGP Curriculum Statement No. 3.7 – Teaching, Mentoring and Clinical Supervision
Introduction

“To teach is to learn
To learn is to teach
To teach is to learn more deeply”

(Ancient Japanese Proverb)

Rationale

In *Good Medical Practice*, the General Medical Council states amongst others that:

‘You should be willing to contribute to the education of students or colleagues and if you have responsibilities for teaching you must develop the skills, attitudes and practices of a competent teacher. You must also make sure that students and junior colleagues are properly supervised.’

Preparing the GP trainee for Good Practice entails providing the trainee with the skills and tools to enable them to fulfill this requirement.

As Rogers wrote; ‘The purpose of adult education is to help them to learn, not to teach them all they know and thus stop them from carrying on learning.’

GPs will act as teachers, mentors and supervisors throughout different times of their careers, both in a formal and informal capacity and with teaching being conducted in both implicit and explicit methods. The behaviour modeled by the GP trainees and later on as GPs, will also provide strong messages which underpin all forms of teaching. As role models, their behaviour will be emulated by many, including other GP trainees. Role modeling serves as a strong modulator in teaching, particularly in the teaching of attitudes and professional values.

Teaching provides a very effective method for promoting learning in the GP trainee him/herself and serves as an excellent tool for continued professional development.

Mentoring is defined as the ‘regular guidance and support offered by a more experienced colleague’. It is much more than teaching and has been an activity prevalent in medicine for many centuries. It is one of the ways in which relevant knowledge, skills and attitudes are passed down along generations. Mentoring is an effective method that facilitates lifelong, self-directed reflective learning. It relies on both mentee and mentor to observe certain rules of conduct to prevent
problems arising out of such a close relationship. It helps a trainee develop his/her potential as a medical practitioner.

Clinical supervision is defined as ‘an exchange between practising professionals to enable the development of professional skills’. This definition covers a wide range of activities including everything from informal case discussions to more formal arrangements of many kinds including specialty registrar tutorials. Educational supervision is the organised clinical supervision taking place in the context of recognised training.

**Maltese priorities**

With the STPFM currently on its maiden experience, most of the data is limited to the first cohort of GP trainees enrolled in the training programme. Analysis of a needs assessment for the GP trainees shows that GP trainees are conversant with many of the principles of adult learning but are more comfortable with the methods of teaching and learning that they have themselves experienced, show preference to a didactic style of learning and are reluctant to engage in peer-assisted teaching and learning. Efforts thus need to be injected in the training programme to introduce the trainees to different teaching concepts and andragogy, to enable GP trainees to discover the benefits of different teaching styles.

As much as GP trainees are themselves under supervision, they themselves can carry out supervisory roles with junior doctors, medical students, and other medical staff. This is particularly so when the GP trainee happens to be the most senior member of the group, as often occurs during A&E placements. Such experiences benefit the GP trainees and amongst others, they gain opportunities to give and receive feedback. Feedback may also be acquired on their teaching and supervisory roles, this not only enhancing reflective practice but also helps identify lacunae and learning needs for the GP trainee.

The GP trainee can also benefit from the dual experience of being a mentee whilst acting as a mentor for another colleague or student. Activities such as clinical supervision and mentoring provide opportunities for GPs to examine their own professional practice safely and effectively.

GP trainees need to be guided to develop their role as teachers, helping them to become learner-centred, to encourage learner autonomy and provide support. In common with the consultation, skills required for effective teaching include active listening, questioning and summarizing.
Learning outcomes

By the end of the specialist training, the trainee is expected to:

1. Show understanding of how adults learn.
2. Demonstrate a familiarity with concepts of different learning styles.
3. Demonstrate a learner-centred approach to teaching.
4. Perform an educational needs analysis.
5. Design an educational programme tailored to the identified needs of a learner.
6. Plan and structure a teaching episode to suit needs of the learners concerned.
7. Facilitate the learning of a small group.
8. Deliver a presentation clearly and effectively, identifying the needs of and targeting presentation to meet these audience needs, and encouraging participation of the audience.
9. Demonstrate the effective use of information management and technology in teaching.
10. Ask and use feedback on teaching as a method of enhancing performance as a teacher.
11. Enhance the culture of teaching and learning within the practice organization.
12. Understand the benefits of interprofessional and multiprofessional learning.
13. Give effective feedback to a colleague.
14. Understand the nature and purpose of mentoring and of clinical and educational supervision.
15. Recognise the relationship between these activities and reflective practice.
16. Distinguish the different forms that mentoring and clinical supervision (formal and informal) can take, and show understanding of the benefits and limitations of these.

17. Engage in a mentoring and supervisory relationship, in the capacity of both a service provider and user

**Knowledge Base**

- Principles of adult learning theory
- Individual learning styles and preferences
- The principles of a learner-centred approach to teaching
- The steps in an educational needs analysis
- The definitions of inter-professional and multi-professional learning
- The nature and purpose of mentoring and clinical supervision, and the different forms of these (formal and informal)
- The relationship between teaching and reflective practice
- Ways of establishing a culture of teaching and learning within a practice
- Models of teaching (didactic, Socratic, etc...)

**Psychomotor Skills**

- Adult learning skills: carrying out an educational needs analysis and designing an educational programme appropriate to the learner.
- Feedback skills: asking for and learning from feedback on the performance as a teacher and how to give effective feedback to a colleague.
- IM&T skills: Making use of information technology and management in teaching (see Chapter 19 – Information Management and Technology)
- Mentoring skills: The ability to ask for, organise, receive and also give forms of mentorship and supervision appropriate to career level.
- Presentation skills: Delivering a presentation clearly and effectively, identifying the needs of the audience.
- Teaching skills: planning and structuring a teaching episode appropriately for learners concerned and facilitating the learning of a small group.
Teaching and Learning Resources

Work-based learning - in primary and secondary care

- Observation of teaching methods used by teachers and trainers of adults, clinical supervision, mentoring and giving feedback.
- Teaching to fellow colleagues, junior doctors, medical students, in both hospital and community: individually, in small groups and large groups.
- Conduct sessions with specialty registrars and medical students to practice awareness raising questions and discuss problem-based cases.
- Engage in mentoring relationships acting both as a mentor and a mentee.
- Use the Educational Portfolio to record learning experiences and reflections.

Other learning opportunities:

- Introduce a teaching and learning culture to the practice one belongs to e.g. setting up of a significant event audit register.
- Teach fellow trainees or other colleagues (e.g. in the Half-Day Release Course) with evaluation and feedback
- Carry out literature reviews and art appreciation
- Follow postgraduate certificates and Master Degree programmes in medical education.

Formative Assessment

- Carrying out an educational needs analysis for different groups of learners
- Identifying the individual learning style, preferences and learning needs of the individual or group you are teaching
- Delivery of teaching presentations using various teaching styles to cater for different learning preferences and multi-professional groups
- Analysis of Educational Portfolio for significant learning episodes and reflections.
References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No 3.7 – Teaching Mentoring and Clinical Supervision

Further Reading:


**Internet resources:**

- The Honey and Mumford learning styles questionnaire: www.peterhoney.com
- The Myers-Briggs Personality Indicator: www.myersbriggs.org
- Learning and Teaching: www.learningandteaching.info/learning/about.htm
- The Royal College of General Practitioners: www.rcgp.org.uk/
- A selection of deanery and local VTS websites of interest:
  - www.bradfordvts.co.uk/
  - www.gp-training.net/vts/index.htm
  - www.londondeanery.ac.uk/
  - www.trainer.org.uk/
Chapter 25.

Nutrition

Author: Dr Daniel Sammut MD MMCFD

Date: 9th May, 2009
Introduction

Rationale

Nutrition definitely affects health and, conversely, disease often affects nutrition (e.g. vomiting; swallowing problems; intestinal malabsorption). Eating is a fundamental human need, and it has biological, psychological and social functions. Nutritive needs vary according to an individual’s age, sex, degree of physical activity and state of health. Dietary patterns are shaped by socio-cultural factors such as family habits, peer pressure, health beliefs, religious beliefs, the communication media and economic status. Psychological factors are evident in the eating disorders: compulsive eating, bulimia and anorexia nervosa.

On the media, people are bombarded with advertisements about food products and beverages, food-preparation, nutrition and dieting. A lot of this information is scientifically inaccurate or downright misleading. Unsound diet fads abound, and huge amounts of money are spent on buying food supplements and undergoing slimming treatments that are often useless and sometimes even harmful. Family doctors, together with the other members of the primary healthcare team, play a vital role in promoting a healthy diet for people of all ages. GPs should be able to provide evidence-based advice about nutrition. Regrettably, this topic has received little attention in past medical curricula, and this module tries to address this lacuna.

Some patients have very specific dietary needs. These include patients with:
- pregnancy
- a strict vegetarian diet
- food intolerance (e.g. G6PD deficiency; lactose intolerance)
- food hypersensitivity (e.g. coeliac disease; allergy to nuts)
- malabsorption syndromes (idiopathic; infective; post-surgical)
- renal failure
- alcoholism and liver failure
- severe debility
- total parenteral nutrition

An interdisciplinary approach is useful in the management of most patients who need to make dietary changes. Close liaison with dietitians, nutritionists, other medical specialists, nurses and pharmacists and follow-up will enable positive reinforcement of advice given by other professionals.

Understandably, nutrition is a field where research is abundant and ongoing. A typical example is omega-3 fats. These have recently been found to be protective against Alzheimer’s dementia, renal cancer in women, heart failure and second myocardial infarction.
Maltese health care priorities

Nutrition problems start from a very young age. Only about 40% of Maltese mothers breastfeed their infants by the time they are discharged from hospital postnatally and figures for breastfeeding at 6 months are significantly less. Of those mothers who breastfeed, a number wrongly tend to supplement this with bottle-feeds. Starting weaning before the age of six months is another common local practice. A large number of toddlers receive unnecessary follow-on artificial milk formula. School age children often refuse vegetables and fruit, preferring to eat junk food and sweets. Unfortunately, many Maltese children are pampered excessively, and sweets are often used as a ready reward. In a systematic review comparing estimates of the prevalence of overweight and obesity in school-aged youth from 34 countries showed that Malta has the highest prevalence of overweight (pre-obese and obese) and obese youth at 25.4% and 7.9% respectively. Consumption of sugary drinks aggravates the problem.

The World Health Organisation estimates that 66% of females and 71.4% of Maltese males have a BMI>25kg/m² while 34.8% of females and 25.9% of males have a BMI>30kg/m². Obesity carries a high burden of morbidity and mortality from cardiovascular disease and certain types of cancer (e.g. breast, ovary, prostate) and contributes to the development of diabetes mellitus, which is already estimated to affect about 11.6% of the population. Obesity, diabetes, hypertension, hyperlipidaemia and gout are all important risk factors for cardiovascular disease, and proper management of all these conditions should involve early and permanent dietary modification.

In practice, bad habits are hard to shed. In Maltese villages and towns, food outlets are thick and numerous, so the person on diet is continuously assailed by tempting sights and smells of food. Family doctors should educate their patients about healthier diets, encourage them to institute dietary changes, and be ready to patiently support them throughout their lifetime. Advice needs to be tailored to the individual’s needs and preferences. The Department of Health Promotion and Disease Prevention helps by periodically holding national campaigns to promote healthy eating and it also provides patient information leaflets on the subject.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in promoting healthy nutrition.

By the end of the specialist training, the trainee is expected to:

1. Explain the importance of nutrition in health and disease.

2. Appreciate that dietary habits are strongly influenced by family members, culture, socio-economic factors, the communication media and religious beliefs.

3. Demonstrate knowledge of the epidemiology of unhealthy nutrition and related disease in the local community.

4. Base dietary advice on sound up-to-date medical evidence, and be able to assess the validity of such evidence.

5. Promote a healthy diet on an individual basis as part of the consultation. Appreciate the importance of tailoring dietary interventions to the specific needs and preferences of the individual patient.

6. Explain how nutritional requirements vary according to age, gender and state of health. Advise dietary changes to best complement individual needs.

7. Take a holistic approach and sensitively solicit the patient’s beliefs, concerns, values and expectations related to nutrition in a patient-centred consultation. Involve the patient and, where appropriate, his or her family, in developing acceptable management plans. Encourage questioning by the patient and encourage the patient to access further reliable information and patient support groups.

8. Be prepared to accept the patient’s position (even if the latter does not wish to change an unhealthy diet) without putting in jeopardy the therapeutic relationship.

9. If the patient is willing to change, negotiate realistic goals with him/her. Adopt a shared management plan, empowering the patient to look after his health, and provide psychological support throughout the, often difficult, process of change. Provide follow-up, continued reinforcement and support over time.

10. Be aware that the Department of Health Promotion and Disease Prevention provides individual counselling about nutrition and eating disorders (helpline) and group sessions for weight reduction, and be ready to refer patients to these programmes. Be familiar with the wealth of publications on nutrition and
food preparation (e.g. patient information leaflets; posters) freely available from the Department of Health Promotion and Disease Prevention, and be ready to use them in day-to-day work with patients.

11. Explain the different and complimentary roles of GPs, dietitians, nutritionists, specialists in secondary care, nurses, midwives, pharmacists, and health educators in promoting a healthy diet. Understand the importance of teamwork and take a central responsibility to coordinate care provided by other agents.

12. Realise that patients are often misled into buying useless (or even harmful) food products, supplements and slimming treatments. Be prepared to act as an advocate for the patient and his/her family.

13. Appreciate that many patients regard their healthcare provider as a role model.

**Knowledge base**

**Symptoms:**
Failure to thrive, stunted growth, weight loss, kwashiorkor, obesity, tiredness, various symptoms of vitamin and mineral deficiency.

**Common and/or important conditions involving nutrition:**
- Pregnancy
- Obesity
- Strict vegetarian diet
- Food intolerance (e.g. G6PD deficiency; lactose intolerance)
- Food hypersensitivity (e.g. coeliac disease; allergy to nuts)
- Malabsorption syndromes (idiopathic; infective; post-surgical)
- Gout
- Hypertension
- Hyperlipidaemia
- Diabetes mellitus
- Alcoholism and liver failure
- Renal failure
- Severe debility
- Eating disorders
- Mineral deficiencies (e.g. iron, iodine, magnesium)
- Vitamin deficiencies (e.g. pernicious anaemia)

**Investigation:**
- Measurement of body mass index, waist circumference and skin-fold thickness
• Blood tests for total protein, serum albumin, lipid profile, blood glucose, electrolytes, full blood count and picture, serum ferritin, magnesium, folate and vitamin B₁₂
• Knowledge of specialised investigations e.g. body plethysmography

Treatment:
• Understand principles of treatment for common conditions managed largely in primary care – e.g. obesity, iron deficiency, diabetes mellitus, hyperlipidaemia, gout
• Evidence-based and judicious use of nutritional and vitamin supplements
• Nasogastric, enteral and parenteral nutrition

Emergency care:
Understand indications for emergency referral of:
• infants who fail to thrive
• malnourished children
• people with dehydration or electrolyte disturbance
• severe anaemia
• Wernicke-Korsakoff syndrome
• severe anorexia

Prevention:
• Exclusive breast-feeding for the first six months of life
• Appropriate weaning schedule
• Adequate water intake
• Healthy Mediterranean diet: the food pyramid
• Hygiene in food preparation, storage and consumption
• Adequate time for safe thawing, cooking and storing of food
• Prophylactic supplements before conception, during pregnancy, in alcoholics and other groups at risk
Relevant Guidelines

- **A Breastfeeding Policy for Malta** (Department of Health)
- **The food pyramid** (Dept. of Health Promotion and Disease Prevention)
- **Food safety** (Dept. of Health Promotion and Disease Prevention)
- **Obesity in Adults and Children** (NICE)
- **Eating disorders** (NICE, RCPsych, beat)
- **MI: secondary prevention** (NICE)
- **Anaemia management in people with chronic kidney disease** (NICE)
- **The malnutrition universal screening tool (MUST) for adults**
  (The British Association for Parenteral and Enteral Nutrition)
- **Caring for children and young people in the community receiving enteral tube feeding: best practice statement**
  (NHS Quality Improvement Scotland)
- **Improving Nutritional Care** (Department of Health, UK)
- **Maternal and child nutrition** (NICE)
- **Nutrition and dental health: guidelines for professionals**
  (Health Promotion Agency for Northern Ireland)
- **Salt and Health** (Scientific Advisory Committee on Nutrition, UK)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a careful nutritional history; adopting a patient-centred approach; measuring abdominal circumference and BMI; ordering and interpreting laboratory results; giving evidence-based advice on nutrition appropriate to life stage; setting realistic goals; negotiating a shared management plan with the patient (and possibly his/her family); encouraging access to further reliable information (e.g. internet, patient leaflets); offering follow-up and reinforcement over time; liaising with other specialists in the field of nutrition

- Tutorials on principles of nutrition in health and disease

- Analysis of video recorded consultations about nutrition e.g. advice on weight loss

- Random case analysis of consultations about nutrition

- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as taking a careful nutritional history; adopting a patient-centred approach; measuring abdominal circumference and BMI; ordering and interpreting laboratory results; giving evidence-based advice on nutrition appropriate to life stage; setting realistic goals; negotiating a shared management plan with the patient (and possibly his/her family); encouraging access to further reliable information (e.g. internet, patient leaflets); offering follow-up and reinforcement over time; liaising with other specialists in the field of nutrition

- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Private study of national guidelines on nutrition, textbooks, journals and internet resources

- Interactive half-day release programme sessions on nutrition in health and disease

- Interactive courses (including role-play) for teaching brief interventions in counselling to promote healthy changes in behaviour

- Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars
  with dietitians, nutritionists, other medical specialists, nurses, pharmacists,
  health educators, etc…
• Conducting weight reduction clinics or lectures.

**Formative Assessment**

• Analysis of recorded consultations about nutrition
• Mini-clinical examination e.g. measurement of abdominal circumference
  and BMI
• Case-Based Discussion on consultations about nutrition
• Analysis of Educational Portfolio for cases dealing with nutrition.

**References:**

docosahexaenoic acid content and risk of dementia and Alzheimer's disease.
*Archives of Neurology*;63:1545-50
consumption and renal cell carcinoma incidence in women. *JAMA*;296:1371-6
control of the cardiovascular system by polyunsaturated fatty acids in heart
failure patients. *Journal of the American College of Cardiology*, 48:1600-6
Guideline 48: MI-secondary prevention. Available online at:
www.nice.org.uk/nicemedia/pdf/CG48NICEGuidance.pdf (last
accessed 08.05.09)
Obesity Working Group. Comparison of overweight and obesity
prevalence in school-aged youth in 34 countries and their relationship with
Further reading:


Internet resources:

- The European Society for Clinical Nutrition and Metabolism:  www.espen.org/espenguidelines.html
- UK guidelines:  www.patient.co.uk/showdoc/50000014
Chapter 26.

Occupational Health

Author: Dr Daniel Sammut MD MMCFD

Date: 3rd March, 2009
Introduction

Rationale

In 2007, 47% of the Maltese population held employment, 49% where inactive, and 3% where unemployed.\(^1\) For the individual (and his/her dependants), gainful employment carries several important social effects such as financial security, independence and social status. Beneficial psychological effects of employment include personal satisfaction, motivation, social interaction, and a stimulus to lifelong learning. Conversely, unemployment may have distressing effects on a person’s social, psychological, and possibly physical well-being.

Occupational medicine deals with the two-way interaction of occupation and health. Family doctors are involved in occupational health because many of their patients are workers, and both doctors and patients appreciate the bearing that occupation has on the physical, social and psychological health of individuals. A good history cannot ignore the patient’s occupation, and the latter may point to an occupational cause for disease (e.g. anxiety; repetitive strain injury; asthma; hearing loss).

Unfortunately, a large number of occupational accidents occur every year, primarily in males. About eight cases every year are fatal; 60% of these in the construction sector. Most accidents at work occur in the economic sectors of manufacturing (28.5%); construction (15.6%); and transport, storage, and communications (13.0%). Most of these injuries are preventable. The Occupational Health and Safety Authority aims to make the Maltese workplace an environment where health and safety are not considered as afterthoughts but are integrated throughout all work systems and processes. It provides educational courses and publications to employers and employees, and works to enforce safety rules. The only way by which health and safety in the workplace will improve is if the process is self-regulating i.e. the employers themselves recognise that it is in their best interests to provide their workforce with a healthy and safe environment.\(^2\)

When a family doctor visits an injured employee, he/she is required to fill in the application for injury benefit (NI30 GP75), and this is should reach the Director of Social Security within ten days of the accident.\(^3\) Employees who suffer a permanent impairment arising form an injury at work are entitled to a pension according to their percentage of disability.\(^4\)
Maltese health care priorities

On the other hand, personal health can affect a person’s employability, his/her performance or the health and safety of others. In the Maltese islands, sickness certificates are needed from the first day of illness. Most GPs are asked to certify illness by their own patients. A local study found that 11.3% of patient encounters with private family doctors involve the issuing of a sickness certificate. The distribution of morbidity seen by the GPs appeared to be very wide, with a dominance of acute respiratory, gastrointestinal and musculoskeletal symptoms and diagnoses, and the role of sickness certification was quite important. The frequency of sick leave certification in Malta is comparable with that in other European countries, but the average duration of episodes is shorter. The high proportion of reasons for encounter formulated as a request for a sickness certificate suggests that the active role of family doctors in this form of social security in the Maltese population has supported the local development of family practice.5

Regrettably, absence from work on medical grounds is often abused in Malta. When a regular patient turns up at his/her family doctor's clinic to ask for a sickness absence certificate, the doctor needs to judge whether that request is reasonable, and how long the period of recovery should be. If the request is not justified in the circumstances, the doctor will experience a conflict of interest. Many family doctors consider that this duty runs counter to their perceived role as patient advocates and ‘carers’. In these instances, the doctor should demonstrate ethical integrity without damaging the therapeutic relationship with the patient. A similar conflicting situation may arise when GPs are asked to examine a patient to issue a certificate of fitness for employment.

A good number of GPs are directly engaged by companies to verify sickness in their employees. Locally, this often takes the form of home visits to employees when the latter report sick. During these consultations, the doctor should be careful to observe the following ethical principles:

- All patients of occupational health services are entitled to good standards of practice from their doctors. Essential elements include professional competence and good relationships with patients, colleagues and patients’ managers.6
- Although the consultation is initiated and financed by the employer, the employee’s autonomy and confidentiality should be respected. Informed consent (ideally written) should be obtained from the employee regarding the content of any sensitive personal information conveyed about him/her to employers or third parties.6
- When it becomes the duty of a practitioner occupying an official position to see and report upon a case of illness or injury, he should communicate with the patient informing him that it is his right to ask his practitioner to be present during the examination.6
• The practitioner seeing the case officially shall scrupulously avoid interference with, or remarks upon, the treatment or diagnosis that has been adopted by the employee’s personal family doctor.  

• A GP should refuse to be the company doctor of one of his own patients.  

• Some human resources managers may seek an opinion from the occupational health physician (OHP) as to whether an employee is malingering. This request undermines the doctor-employee relationship and the International Labour Office has advised against this practice.

However, the proper role of the OHP should have a wider scope. He/she is involved in performing pre-employment and periodical health check-ups for employees, to focus on the prevention of occupation-related disease. To do this, the doctor needs to have a thorough understanding of the work being undertaken by the employee, and a site visit may be necessary for this. The OHP should advise the employer on health and safety arrangements and policies at the workplace, liaising with human resources managers, other managers, health and safety officials, and possibly with employee representatives. The OHP is often concerned with the health of the whole organization as well as that of the individuals who constitute it. This function carries implications for individual workers, but is fulfilled outwith the traditional medical consultation. The OHP should also be involved in the training of staff in health matters.

Another function of the OHP is to examine employees to diagnose established disease, in order to provide rehabilitation. Open and honest communication is important, including information about their condition, such as causation and relationship to work (where known). Liaison with the employee’s family doctor is essential, and other medical or non-medical specialists may need to be involved (e.g. physiotherapist; psychologist). OHPs seldom prescribe drugs therapeutically, but do sometimes prescribe immunizations, travel medicines, post-exposure prophylaxis and specific occupational interventions; they may also ‘prescribe’ items that should be worn for personal protection, administer first aid, or advise patients on avoidance measures and other courses of action that contribute to the overall medical management of an illness. The doctor should act as a health expert mediator between the management and the employee, giving appropriate information regarding expected duration of illness, risk to third parties, any need for work restriction and work placements. Detailed medical records with data protection should be kept at all times.

Occupational medicine is especially relevant to GPs when they are employed or employers themselves. In the latter case, they must provide a safe and healthy workplace for their staff, and abide by the laws regulating this sector.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in occupational health. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Recognise the impact of occupation on the social, psychological and physical health of the individual.

2. Appreciate the impact of personal health on employability and performance.

3. Take a careful occupational history from patients.

4. List medical conditions that may be caused or exacerbated by occupation.

5. Give examples of how disease related to occupation may be prevented. Be aware of educational campaigns held by the Occupational Health and Safety Authority. Give appropriate advice about health and safety at work.

6. Describe how to perform a medical check-up for the purposes of health surveillance and assessing fitness for employment.

7. Explain what investigations may be useful to assess the health status of employees (e.g. spirometry; serum lead level; urine tests).

8. Describe how to fill in an application for injury benefit.

9. Describe how to issue a sickness absence certificate, and what procedure should be followed by the patient in order to obtain sickness benefit.

10. Recognise the economic costs and logistic problems brought about by sickness absence on the employer. Appreciate the huge economic costs of sickness absence on society in general.

11. Refuse to issue a certificate unless personal verification shows that the case is genuine. Always demonstrate professional integrity and be courteous to the patient.

12. Describe and respect the code of ethics that regulates the professional behaviour of the occupational health physician with regard to the employee, his/her family doctor, the employer, and other parties (e.g. union).

13. Recognise the importance of respecting an employee's autonomy and confidentiality, even when pressured by the employer.
14. Demonstrate an evidence-based approach towards investigation and management of occupation-related problems.

15. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from occupation-related disease. Empower patients to self-manage their conditions as far as practicable.

16. Coordinate care with other health care professionals, such as other medical specialists, health and safety officials, nurses, physiotherapists, and psychologists to enable occupational-related disease management and rehabilitation.

17. Understand the procedure by which an employee can apply for invalidity pension.

18. Demonstrate self-awareness and be careful to avoid letting personal opinions/judgements affect the quality of care delivery.

19. Appreciate that certain illnesses may pose a health risk to other employees, and make appropriate recommendations to prevent this.

20. Demonstrate ethical and responsible behaviour in issuing certificates for fitness for work when dealing with particular patient categories (e.g. insulin-dependent diabetes; epilepsy) where demands of work environment can jeopardize the health of that particular employee or that of others.

21. Follow the Public Health Act by notifying the listed infective conditions to the Infectious Disease Control Unit.

22. Demonstrate awareness that certain medications may interfere with an employee’s mental faculties, posing a danger for his/herself or others. Strive to avoid such problems.

**Knowledge base**

**Common and/or important conditions:**

- Injuries – scalds/burns; bruising; wounds; sprains; fractures; ocular foreign bodies
- Musculoskeletal – repetitive strain injuries; back pain; neck pain; bursitis; tenosynovitis
- Respiratory - asthma; pneumoconiosis; extrinsic allergic alveolitis; lung cancer; mesothelioma
- Skin – contact dermatitis; irritant dermatitis
- ENT – hearing loss; nasopharyngeal cancer in woodworkers
• Poisoning by industrial agents - lead; mercury
• Occupational infection – hepatitis B and HIV in healthcare workers; anthrax in farmers
• Bladder cancer – in plastic workers

Investigation:
• Spirometry; serum lead levels; other blood and urine tests; audiometry; chest X-ray
• Knowledge of secondary-care investigations e.g. specialised radiology

Treatment:
• Understand principles of treatment for common minor conditions
• Know when to refer to secondary care or other health care professionals such as physiotherapist, psychologist, nurse

Emergency care:
• Acute management of major trauma, haemorrhage, poisoning, electrocution, drowning, anaphylaxis, shortness of breath, penetrating ocular foreign body
• Understand indications and procedures for emergency referral

Prevention:
• Advice on health and safety at work to both employee and employer about safe practices and equipment (e.g. ergonomics; adequate ventilation; protective clothing, goggles, ear protection, safety harnessing)
• Vaccination against influenza; hepatitis B in health workers

The Social Security Act - forms and procedures to apply for:
Sickness absence benefit
Injury grant
Disability pension
Invalidity pension

Relevant Guidelines:

• Ethics of the Medical Profession  (Medical Council, Malta)
• Good medical practice: guidelines for occupational physicians
  (Faculty of Occupational Medicine, Royal College of Physicians)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a detailed occupational history; performing a medical assessment for illness, health surveillance or fitness for employment; formulating a differential diagnosis; ordering and interpreting laboratory, spirometry or radiology results; negotiating a management plan with the patient; issuing sickness absence certificates; liaising with family doctors, other medical specialists, non-medical health workers, employers and union officials; respecting the employee’s autonomy and confidentiality; promoting health and safety at the workplace; giving immunizations; protecting other employees
- Tutorials on principles of occupational medicine
- Random case analysis of consultations for an occupation-related condition
- Analysis of video recorded consultations for an occupation-related condition
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation of the investigation and management of occupation-related disease in secondary care; specialized investigation and treatment; observation of multidisciplinary approach and teamwork.
- Tutorials on principles of occupational medicine
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Private study of GP textbooks, current guidelines, journals and internet resources.
- Interactive half-day release programme sessions about occupational medicine
- Conferences and courses (both local and international) dealing with occupational medicine
- Informal discussions with trainer and peers

Learning opportunities with other health care professionals e.g. seminars with occupational health physicians, health and safety personnel, social
services personnel, human resources managers, union officials, medical specialists, nurses, physiotherapists, psychologists, etc…

**Formative Assessment**

- Analysis of video recorded consultations for an occupation-related condition
- Mini-clinical examination e.g. medical assessment for health surveillance
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations for an occupation-related condition.

**References:**

2. Occupational Health and Safety Report (2007). OHSA. Available at: www.ohsa.org.mt/docs/ohs_ar_07.pdf (last accessed 06.03.09)
3. NI30 GP75 – Application form for injury benefit. Social Security Department
8. Rosso M (2008) *Sickness absence*. Microsoft PowerPoint presentation at Half-day release course session 11.06.08
Further Reading:


Internet Resource:

- Faculty of Occupational Medicine of the Royal College of Physicians:  
  www.facoccmmed.ac.uk/index.jsp
Chapter 27.

Transcultural Medicine

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC

Date: 20th June, 2009
Introduction

Rationale

Societies around the world, including ours, are becoming multiethnic and a mix of cultures. The reality of medical care is that we treat people of diverse backgrounds with varying customs and beliefs. Inequalities of care among minorities and the culturally different are being increasingly documented. Applied cultural knowledge is emerging as a major goal of clinical and public health practice.

Cultural competence aims to assure that health care providers are prepared to provide quality care to diverse populations. It does so by bridging the ‘cultural distance’ between ourselves as providers and our patients. Cultural competence is an important building block of clinical care, a central tenet of patient-centredness and a skill central to the delivery of professional and quality care for all patients, not just to immigrants and foreigners.

Although knowledge about different cultures is an asset, learning about the many different individual cultures and characteristics may not be feasible. Focusing on issues commonly arising from cultural differences and how these may impact on the doctor-patient interaction, will provide doctors with the necessary tools and skills enabling delivery of quality care in any circumstances.

Culture plays a large role in shaping individuals health-related values, beliefs and behaviours. We ourselves belong to more than one culture, with differences in social standing, professional status and religious creed. The delivery of quality transcultural medicine is based on the ability to communicate with, engage and respond to patients effectively regardless of their race, culture, gender, language or socioeconomic class.

Cultural differences may be most commonly expressed in:

- concepts of illness and illness behaviours
- assessment, interviews, and symptom presentation
- hospitalisation, medication, family involvement, consent issues
- highly charged medical areas, e.g., pain management, transfusions, reproductive issues, organ donation
- frequently stigmatized conditions such as AIDS, STDs, cancer, and psychiatric disorders
- opinion held about care provided by non-medical professionals such as social workers, physical therapists, and nutritionists.
Maltese health care priorities

Malta is slowly becoming a melting pot for many different types of cultures. Apart from the rapid turnover of foreigners visiting Malta on holiday, increased mobility has encouraged people from other countries and with different cultures to take up residence in Malta. A significant number of immigrants from the African continent have sought refugee status in Malta, with their numbers constantly on the increase. The need for cultural sensitivity and competence is brought to the fore when attending to the medical needs of these refugees at detention centres and shelter homes. The language difference on its own is very significant, as it is the stumbling block which impacts on the very essence of communication.

Family doctors now see patients from different cultures. We are also witnessing a dilution of the local culture, with the appearance of a hybrid of cultures formed from partnerships between Maltese and foreigners. Switching from one culture to the other during consultations is facilitated and made feasible by conducting patient-centred consultations.

Most immigrants and all those with refugee status, are reliant on receiving medical treatment from the public sector. They have injected into our local practice new disease concepts and new experiences of illness as seen through their eyes. We need to prepare our GP trainees to be able to meet these new cultural expectations and deal with them efficiently and effectively.

Learning outcomes

The following learning objectives specifically relate to the family doctor’s role in engaging in effective consultations with all patients irrespective of gender, race, ethnicity, age or religious belief.

By the end of the specialist training, the trainee is expected to:

1. Demonstrate respectful patient-centred consultation with use of good communication skills conducive to trust; especially so when there is a need for a translator.

2. Elicit the patient’s ideas, concerns and expectations and respond to them appropriately irrespective of the patient’s cultural background.

3. Reduce the risk of misunderstanding by asking questions to appreciate the patients understanding of health and disease, as well as explaining the doctor’s understanding of the illness.
4. Demonstrate awareness and sensitivity to cultural differences which can impact on the consultation and thus also impact on outcome of consultation; e.g. need for chaperone, body language, Muslim females to be examined by female doctors only, compliance to treatment during Ramadan.

5. Discuss culturally sensitive subjects (e.g. death, AIDS & HIV, STDs) in an acceptable manner.

6. Discuss highly-charged medical areas (e.g. pain management, organ donation, transfusions, fertility/reproductive issues) in an acceptable manner.

7. Be confident in recognising symptoms which assume different meanings according to culture and context.

8. Explain cultural connotations on frequently stigmatized conditions such as AIDS, STDs, cancer, and psychiatric disorders.

9. Negotiate a management plan with the patient, making appropriate use of assistance agents such as patient advocates, family members or care workers.

10. Negotiate compromises between traditional healing and established medicine.

11. Identify and address those factors that contribute to racial/ethnic disparities in health (e.g. poverty, lack of education, the environment, unequal access to care) into the diagnostic and treatment strategy.

12. Describe cultural differences for hospitalization, medication, family involvement and consent issues.

13. Understand the role of other non-medical professionals, including social workers, physical therapists, and nutritionists in caring for patients from different cultures.

14. Use local protocols for cross-cultural health care practice e.g. entitlement to free medical treatment.

15. Seek advice from and develop a working relationship with community agencies that understand and advocate for patients e.g. Dar L-Emigrant, Jesuit Refugee Centre.
Knowledge Base

The GP trainee should be knowledgeable about:
- cultural medical differences
- disease prevalence in ethnic communities
- attitudes to appointments and queues
- problems of travel
- body language
- attitudes towards death
- effect of religion on medicine

Teaching and Learning Resources

Work-based learning- in primary care

- Observation of consultations in general practice involving a cross-section of the population and including foreigners, immigrants and people of different socioeconomic standing
- Tutorials dealing with transcultural issues e.g. implications of illness and attitudes towards medication in different cultures
- Random case analysis of consultations seeking communication skills and patient-centred approaches conducive to cultural competence
- Analysis of video recorded consultations involving patients of different cultures
- Use of Educational Portfolio to record learning points and reflections.

Work-based learning- in secondary care

- Observation of consultations in hospital and outpatient settings, involving a cross-section of the population (including foreigners, immigrants and people of different socioeconomic standing and religious creed)
- Tutorials dealing with transcultural issues e.g. implication of illness in different cultures, consent to treatment, blood transfusion, organ transplantation
- Use of Educational Portfolio to record learning points and reflections
- Observation of multidisciplinary approaches in dealing with patients of different cultures.

Other Learning Opportunities

- Reading of related articles from books, journals and internet sources
• Dedicating Half Day release programme to discussing transcultural issues and competence, ideally with the participation of people from different cultures
• Attend lectures dealing with Cultural Medicine
• Informal discussions with trainer and peers
• Learning opportunities with other medical professionals e.g. seminars on topic, ideally with participation of people from different cultures
• Participation in voluntary work with refugees in refugee centres and shelter homes.

**Formative Assessment**

• Analysis of video consultations involving patients from different culture
• Analysis of Educational Portfolio
• Case-based Discussion on transcultural consultations
• Patient Satisfaction Questionnaire including feedback from foreigners and refugees.

**References:**

- Streltzer J, Tseng WS. *Cultural Competence in Health Care, A Guide for Professionals*

**Further reading:**


207
Internet resource:

- Commonwealth Fund Health Care Quality survey, 2001 (http://www.cmwf.org/surveys)
Chapter 28.

Complementary and Alternative Medicine

Author: Dr Alessandra Falzon Camilleri MD MMCFD CIDC (ICGP)

Date: 26th May, 2009
Introduction

Rationale

Complementary and alternative medicine (CAM) is defined as ‘diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine.’

It comprises a confusingly large and heterogeneous array of techniques, with both therapeutic and diagnostic approaches, including acupuncture, aromatherapy, chiropractice, herbalism, massage, reflexology and spiritual healing. At present, much of complementary and alternative medicine remains opinion based.

The terms holistic medicine or integrative medicine is being increasingly substituted for CAM. According to the AAP Task Force,

‘Holistic medicine refers to patient-centered care that includes consideration of biological, psychological, spiritual, social, and environmental aspects of health,’

‘Integrative medicine is relationship-based care that combines mainstream and complementary therapies for which there is some high-quality scientific evidence of safety and effectiveness to promote health for the whole person in the context of his or her family and community. Integrative medicine also reaffirms the importance of the relationship between the practitioner and the patient, emphasizes wellness and the inherent drive toward healing, and focuses on the whole person, using all appropriate therapies to achieve the patient’s goals for health and healing.’

The Kemper model of holistic care recognizes 4 main components of therapy.

- **Biochemical** components include medications, dietary supplements, vitamins, minerals, and herbal remedies;
- **Lifestyle and nutritional interventions** include recommendations for exercise and/or rest;
- **Environmental therapies** including heat, ice, music, vibration, and light; and
- **Mind-body treatments** such as behaviour management, meditation, hypnosis, biofeedback, and counseling.

Biomechanical components include massage and bodywork, chiropractic and osteopathic adjustment, and surgery. Bioenergetic therapies may include
acupuncture, radiation therapy, magnets, Reiki, healing touch, qi gong, therapeutic touch, prayer, and homeopathy.

Recent studies carried out in the UK reveal that ‘the most likely predictors of use of complementary and alternative health practitioners were longstanding illness, non-manual social class, female sex, and high levels of GP service use.’

A 1997 NIH Consensus Statement on acupuncture listed osteoarthritis as one of the disorders "for which the research evidence is less convincing but for which there are some positive clinical trials." Although acupuncture has been promoted as a safe therapy, significant infections have occurred, including human immunodeficiency virus and hepatitis, as a result of the use of unsterilized needles.

Many contradicting opinions and existing evidence dominate complimentary and alternative medicine, highlighting the necessity of bringing opinion in line with evidence. Paradoxically, complementary and alternative medicine can be ‘ineffective’ (in the sense of not being better than a placebo) and still do a world of good to the wellbeing of our patients. We need to find a balance between those who overtly promote or stubbornly reject complementary and alternative medicine without acceptable evidence. Patients and healthcare providers need to have hard evidence about which forms are safe and effective. The best way to achieve this is through rigorous research and the broad dissemination of its findings.

**Maltese health care priorities**

Although no local statistical figures are available to show the prevalence for use of complementary and alternative medicine by Maltese patients, as gauged from family doctor consultations, this is on the increase. Most European countries quote prevalence for use at around 20% and this is predicted to rise. Popular CAM modalities in Malta are herbal medicine, chiropractice, acupuncture, massage and reflexology. Whilst some will resort to these therapies after lack of success or dissatisfaction with other conventional medical treatment, many will opt for their use, mistakenly judging them to be completely free from potential harmful side effects. Others may feel comforted by the pleasant therapeutic experience offered by CAM and their service providers.

Many herbal remedies are used for relief of menopausal symptoms, osteoarthritis, to boost immunity and many other ailments. All are easily available over the counter and over the internet! Amongst the Maltese population, and especially so in the older generation, many will try local herbal remedies prior to or together with conventional medicine prescribed by doctors, some even attempting self-medication before seeking medical advise. We still have the occasional patient who self-medicates with traditional herbal remedies e.g.
xpakkapietra (red sand-wort) to dissolve kidney stones, ‘Gulepp tal-Ħarrub’ (carob syrup) or honey for cough, Kampucia Tea to combat all ailments, and other variations of homemade herbal concoctions used as ‘tonics’, to detoxify the body or simply as a cure for a fright.

Acupuncture is offered both in the public and private health sector, and many seek help from these clinics in attempt to cure ailments ranging from pain relief, vertigo, smoking cessation and weight loss. Family doctors find that acupuncture can cater for the needs of some of their patients and that some patients report benefit from using this treatment modality. Visits to chiropractors and masseurs are also quite popular and expensive.

An increase in frequency of use of these therapies is also noted in palliative care and other conditions featuring chronic pain. The Malta Hospice Movement offers reflexology and massage as an adjunct to other supportive and treatment modalities.

The local community has also followings in faith healing, with a well established and respected family doctor promoting and leading such sessions. Ardent followers claim that this provides a source of comfort and emotional healing when experiencing physical or mental distress.

Complementary and alternative medicine is largely practised privately. Unfortunately, not all of these therapies are delivered by appropriately trained individuals and some ‘self proclaimed experts’ still manage to hoodwink the vulnerable few. It is crucial that appropriate training and registration is enforced for all those interested to practice in the field of CAM. Nonetheless, regulation is no substitute for evidence, which must be as scientifically rigorous as applied to conventional medicine. This can than be used to inform the basis for many treatment options and decisions to be taken by the doctor with his/her patient. The financial impact of CAM should also be studied.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor’s role in dealing with complimentary and alternative medicine treatment options. The outcomes describe the knowledge base, skills and attitudes the GP trainee should learn during his/her training period.

**By the end of the specialist training, the trainee is expected to:**

1. Describe the different types of CAM available locally.

2. Appreciate cultural differences that may lead patients to seek such treatments.
3. Demonstrate a basic knowledge about contraindications for use and potential harmful side effects of CAM treatment modalities.

4. Elicit a comprehensive medical history inclusive of past use of CAM and the patient’s personal experience of the treatment and resultant outcome.

5. Demonstrate a common sense approach in advising patients regarding use of CAM modalities so that those treatments shown to be safe and effective should be encouraged, those treatments that are safe but ineffective may be tolerated, those modalities that are effective but raise safety issues should be closely monitored or discouraged, and those therapies that are neither safe nor effective should be discouraged.

6. Discuss with patients the range of available CAM treatment options and their relationship with mainstream medicine, and respecting their indicated preferences.

7. Understand the self-prescribing behaviours of patients as well as their attitudes towards prescribed medication regimens.

8. Be aware of the possibilities that patients may be using herbal remedies concomitantly with conventional medicine and that this may have adverse effects on treatment outcomes; avoid unwanted pharmacological interactions and compromises in treatment efficacy, with a special caution for patients on warfarin and those with a history of convulsions.

9. Communicate effectively asking about different therapies the patient is using; recognizing and respecting the family’s perspectives, values, and cultural beliefs; working together with the patients as a partner.

10. Provide clear, non-biased information about CAM, honestly indicating the lack of objective evidence and need for more research to clarify effectiveness of such treatments.

11. Ensure that patient motivations for trying CAM are clarified and that such an option is not being resorted to because of a poor doctor – patient relationship or dissatisfaction with care provided previously.

12. Describe evidence regarding the safety and efficacy of alternative modalities used to treat osteoarthritis, so they can provide their patients with accurate and up-to-date information.

13. Monitor response to treatment with use of measurable outcomes, such as specific goals for symptom relief and remembering to “first do no harm.”
14. Discuss medico-legal, ethical, and research implications for use of CAM.

Teaching and Learning Resources

Work-based learning – *in primary care*

- Critique of video recorded consultations in primary care settings with attention to:
  - the provision of a holistic approach and patient-centred approach, responding appropriately to the patient’s different needs and expectations;
  - communication strategies that family doctors use, highlighting those strategies that may be helpful when discussing CAM with patients and families;
  - establishing rapport and forging relationships, so that treatment choices are grounded in the person and his needs, rather than the disease.
- Tutorials on CAM and implications of choice: medical, ethical and social.
- Use of Educational Portfolio to record learning points and reflections.

Work-based learning- *in secondary care*

- Observation of consultations in hospital settings with attention to:
  - the provision of a holistic approach and patient-centred approach, responding appropriately to the patient’s different needs and expectations;
  - Of particular interest would be observations at the Palliative Care Dept at Boffa Hospital and at the Acupuncture Clinic;
  - communication strategies that hospital registrars and consultants use, highlighting those strategies that may be helpful when discussing CAM with patients and families;
  - establishing rapport and forging relationships, so that treatment choices are grounded in the person and his needs, rather than the disease; of particular interest observations at the Pain clinic and Palliative Care Dept.
- Random case analysis involving use of CAM
- Tutorials on CAM and implications of choice: medical, ethical and social
- Learning opportunities as a multidisciplinary team member
- Use of Educational Portfolio to record learning points and reflections.
**Other learning opportunities**

- Private study using textbooks, journals and internet resources
- Interactive Half-Day Release sessions dealing with CAM
- Attendance at conferences or lectures about CAM
- Informal discussions with trainer, peers, CAM users and service providers.

**Formative Assessment**

- Case-based discussions on cases involving CAM
- Analysis of video-recorded consultations involving CAM
- Analysis of the Educational Portfolio.

**References:**

- Acupuncture. NIH Consensus Statement 1997;15:1-34

**Further reading:**

- Vickers A (2000) Why aromatherapy works (even if it doesn't) and why we need less research. *Br J Gen Pract*;50:444-5
Chapter 29.

Palliative Care

Author: Dr Daniel Sammut MD MMCFD

Date: 26th March, 2009

Reference Document:

RCGP Curriculum Statement No. 12 – *Care of People with Cancer and Palliative Care*
Introduction

Rationale

Neoplasms account for 25% of all deaths in Malta, with an average age at death at 70 years. A study conducted locally using cancer incidence data from 1996-2005 showed that there are statistically significant increasing trends in incidence when all cancers are included together for both genders. Increasing trends were also shown for the incidence of female breast, male colorectal cancer and prostate cancer. The rise in cancer incidence is expected to continue as the proportion of elderly people in the population continues to increase. Two-thirds of patients (66.4%) diagnosed with cancer from 2001-2005 were 60 years and older at the time of diagnosis.

The fear of the ‘unmentionable diagnosis’ is frequently on the mind of patients who consult their family doctor. One of the great skills of the general practitioner is to identify cancer in its early stages through screening or recognition of ‘red-flag’ symptoms and/or signs. Most patients can be reassured that they do not have cancer. Unfortunately, a few will have sinister symptoms and/or signs, and the GP needs to be tactful in recommending early referral to secondary care for investigation and eventual treatment without causing unnecessary distress.

Many malignancies are not curable either because of their intrinsic aggressiveness or due to late recognition. Patients with terminal illness, including cancer and other conditions such as Motor Neurone Disease and Acquired Immunodeficiency Syndrome, have similar needs. The World Health Organisation defines palliative care as:

“an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”

This support extends from the moment of diagnosis to the end of life and bereavement.

Palliative care:
- provides relief from pain and other distressing symptoms;
- affirms life and regards dying as a normal process;
- intends neither to hasten or postpone death;
- integrates the psychological and spiritual aspects of patient care;
- offers a support system to help patients live as actively as possible until death;
- offers a support system to help the family cope during the patient’s illness and in their own bereavement;
• uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;
• will enhance quality of life, and may also positively influence the course of illness;
• is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.³

Maltese health care priorities

The role of the general practitioner extends from primary prevention through early diagnosis of cancer to terminal care. The family doctor has the benefit of knowing the patient as a person in the context of his/her social background, and is able to understand how he/she reacts to illness. The GP should strive to develop good communication skills such as listening and skills for breaking bad news in the least traumatic manner. The skilled doctor can make a holistic assessment of the physical, psychological, spiritual and social needs of the patient and his/her family at the various stages of terminal disease. Many terminally ill patients prefer to live and die in the comfort, security and privacy of their home, and the GP can help them to do this.

The most basic palliative care involves the control of distressing symptoms caused by the illness or its treatment. The WHO analgesic ladder is a relatively inexpensive yet effective method for relieving cancer pain in about 90% of patients.³ The family doctor should be familiar with the types of analgesics available, comparable analgesic efficacy, routes of delivery (including trans- and subcutaneous), dosage regimens and common side-effects. Other frequent symptoms that need to be controlled are nausea, vomiting, constipation, dyspnoea and hiccups.

Depression is common in cancer patients and their family members. Elisabeth Kübler-Ross, in her 1969 book ‘On Death and Dying’, describes, in five discrete stages, a process by which people allegedly deal with terminal illness or catastrophic loss.⁴ The patient who learns that he/she is dying may pass through all or some of the stages of denial, anger, bargaining, depression and acceptance. The family doctor should be attuned to the mental state the patient, discussing these ‘normal’ reactions with him/her and the family, providing ongoing support and intervening to treat severe psychological distress. Respect for the patient’s spiritual beliefs and existential doubts is of paramount importance. Personal continuity of care is essential, and frequent consultations may be required in the clinic or at the patient’s home.
Doctors are human too, and they have to carry their own baggage of fears and doubts about life and death. Since family doctors have time to develop a friendly relationship with patients and their families, it is natural that a GP should mourn the death of his/her patient. The doctor gradually learns to acknowledge these emotions without letting them interfere with his/her functioning.

The Malta Hospice Movement was founded on 4th January 1989. It is a voluntary organization that provides a wide range of multidisciplinary services for people with terminal illness. These services include:

- **Home care:** visiting nurses provide pain relief and symptom control (including syringe driver for subcutaneous drugs), offer a support system to help patients live as actively and as fully as possible and to help families cope during the patient’s illness and, where indicated, in their bereavement
- **Day care:** providing time out for the patient and time off for the carer. The day unit enables people to make new friends, discover new interests and join in a range of activities and therapies (e.g. nursing assessments, crafts, salon, hydrotherapy, physiotherapy, complementary therapy, occupational therapy, group therapy, psychosocial and spiritual support)
- **Hospital support:** helps ease transition from hospital to home; providing continuing care, support and advice to hospital staff
- **Respite care:** hospice trained care assistants sit with patients and help them with their activities of daily living. In this way they afford respite to families who need some time for rest or for other activities
- **Social work support:** social workers help patients to deal with financial worries, benefits claims, housing difficulties and other problems which may arise at a time of serious illness. They also support families facing the emotional and psychological consequences which may arise when someone close to them is very ill or dying
- **Spiritual support**
- **Bereavement support**
- **Loan of equipment**
- **Library.**

In the Malta Hospice Movement, family doctors find a trustworthy ally in the fight against human suffering and in working to improve the quality of life of terminally ill patients. Close collaboration and liaison between all professionals involved in management will ensure the best outcome for the patient and his/her family.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the care of patients with cancer or terminal illness. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care contact with any cancer or terminally ill patient, adopting a patient-centred approach.

2. Describe the epidemiology of cancer in the local community to assist diagnosis.

3. Outline the natural history of the most common cancer types.

4. Describe the profound effects of cancer and terminal illness on the physical, psychological and social well-being of the individual.

5. Recognise the impact of cancer and terminal illness on the family, friends, dependants and employers of the patient.

6. Demonstrate adequate consulting skills to solicit a holistic history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with serious or terminal illness.

7. Explore the patient’s ideas, plans, concerns and expectations, and how they fit in the social and clinical context. Respect these views, and try to address identified needs.

8. Perform a complete examination of the cancer patient, including psychological state.

9. Demonstrate how to use a visual analogue scale to assess pain intensity.

10. Demonstrate skills at breaking bad news in the least traumatic manner.

11. Adapt communication to the patient’s needs, and dedicate appropriate time to counsel the patient and his/her carers, repeating as necessary and arranging follow-up.

12. Respect the patient’s autonomy and confidentiality.

13. Describe the five-stage model developed by Dr E. Kübler-Ross to describe psychological reactions to terminal illness and grief. Attempt to distinguish
‘normal reactions’ from depression and distressing anxiety in these circumstances.

14. Appreciate that the needs of the patient and his family will change during the course of the illness, and adapt approach and management accordingly.

15. Understand the potential conflicts that may arise between the needs of the patient and the wishes of his/her family, and deal with them effectively.

16. Develop skills to manage the concurrent health problems experienced by a dying patient through identification, exploration, negotiation, acceptance and prioritization.

17. Appreciate that palliative care shifts the emphasis of care from cure to symptom relief.

18. Negotiate a realistic, comprehensive and holistic management plan in partnership with patients who suffer from cancer or terminal illness and/or their carers.

19. Empower patients to self-manage their conditions as far as practicable and encourage them to remain as active as possible.

20. Encourage the patient to access information and support from the Malta Hospice Movement and other reliable sources.

21. Realise that cancer and terminally ill patients make greater demands for home visits. Cater for these requests.

22. Provide continuity of care and keep good medical records to enable the management of terminal illness. Hand over important information to colleagues who might be called to care for the patient.

23. Make an effort to anticipate emergency situations and deal with them effectively when they occur.

24. Harness the holistic support of family, carers, and friends in the care of dying patients.

25. Demonstrate a consistent, evidence-based approach to drug prescribing for patients with cancer or terminal illness.

26. List the commonly used analgesics, anti-emetics and laxatives, and their presentations, relative efficacy, and dosage regimens.
27. Describe the WHO analgesic ladder model.

28. Appreciate that analgesics often have adverse effects, and strive to anticipate and minimise these.

29. Coordinate care with other professionals, such as oncologist, other medical specialists, hospice nurse, practice nurse, pharmacist, physiotherapist, occupational therapist, psychologist, complementary medicine therapist, and spiritual advisor to deliver the best palliative care possible.

30. Explain when invasive procedures (e.g. therapeutic pleurocentesis) may be indicated to relieve a patient’s suffering.

31. Carefully judge when to stop invasive or uncomfortable treatments, if benefits are not substantial or long-lasting.

32. Describe the common adverse effects of radical surgery, radiotherapy and chemotherapy on the physical and psychological health of the patient. Attempt to anticipate and minimise these unpleasant effects.

33. List the social benefits and services provided by the government and voluntary organisations for the care and support of the terminally ill, and explain how to access them.

34. Discuss with the patient, family, and senior staff when to issue advanced directives, and write them down clearly in the patient’s notes.

35. Be self-aware and clarify personal values regarding death, dying, and palliative care. Avoid letting personal opinion influence quality of care.

36. Give examples of moral, ethical and emotional issues at the end of life as well as after death.
Relevant Guidelines

- **Referral guidelines for suspected cancer** (NICE)
- **Improving supportive and palliative care for adults with cancer** (NICE)
- **Advance decisions to refuse treatment: a guide for health and social care professionals** (UK NHS End of Life Care Programme; National Council for Palliative Care)
- **Breaking Bad News** (UK Regional Guidelines National Council for Hospice and Specialist Palliative Care Services)
- **Control of pain in adults with cancer** (National Council for palliative Care; SIGN)
- **End of life care strategy** (UK NHS End of Life Care Programme)
- **Long-term neurological conditions - management at the interface between neurology rehabilitation and palliative care** (Royal College of Physicians)
- **Palliative cancer care - constipation, secretions, cough, dyspnoea, malignant ulcer, nausea and vomiting, oral problems, pain** (Clinical Knowledge Summaries, UK)
- **The use of drugs beyond licence in palliative care and pain management** (British Pain Society)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as attending to physical, psychological and social needs of the patient and family; tailored communication; breaking bad news; full examination of the patient with cancer or terminal illness; formulating a differential diagnosis; negotiating a comprehensive and holistic management plan; always respecting the patient’s autonomy and confidentiality; involving the family and/or carers in management; evidence-based prescribing, attempting to anticipate and minimise adverse effects; liaising with other caring professionals, social services and voluntary agencies as required; providing continuity of care and keeping good medical records; making clinic accessible and performing home visits when necessary; intervening rapidly and appropriately in emergencies; clarifying personal ethics and attitudes to death, dying and palliative care

- Tutorials on principles of palliative care
- Random case analysis of consultations involving palliative care
- Analysis of video recorded consultations involving palliative care
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as attending to physical, psychological and social needs of the patient and family; tailored communication; breaking bad news; full examination of the patient with cancer or terminal illness; formulating a differential diagnosis; negotiating a comprehensive and holistic management plan; always respecting the patient’s autonomy and confidentiality; involving the family and/or carers in management; evidence-based prescribing, attempting to anticipate and minimise adverse effects; liaising with other caring professionals, social services and voluntary agencies as required; providing continuity of care and keeping good medical records; making clinic accessible and performing home visits when necessary; intervening rapidly and appropriately in emergencies; clarifying personal ethics and attitudes to death, dying and palliative care

- Tutorials on principles of palliative care
- Using Educational Portfolio to record learning points and reflections.
Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about palliative care
- Conferences and courses (both local and international) dealing with palliative care
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with oncologists, other medical specialists, hospice professionals, nurses, pharmacists, physiotherapists, occupational therapists, psychologists, etc...

Formative Assessment

- Analysis of video recorded consultations involving palliative care
- Mini-clinical examination e.g. psychological state examination; using visual analogue scale to assess pain intensity; setting up syringe driver for morphine infusion
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations involving palliative care.

References:

3. WHO Palliative Care website: www.who.int/cancer/palliative/en/ (last accessed on 25.03.09)
5. The Malta Hospice Movement website: www.hospicemalta.org/ (last accessed on 25.03.09)

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No.12 – Care of People with Cancer and Palliative Care
Further Reading:


Internet Resources:

- WHO Palliative Care website: www.who.int/cancer/palliative/en/
- The Malta Hospice Movement website: www.hospicemalta.org/
- The Breast Care Support Group: www.bebreastaware.org/
- National Council for Hospice and Specialist Palliative Care Services: www.dhsspsni.gov.uk/breaking_bad_news.pdf
- Breast Cancer Care: www.breastcancercare.org.uk/
- Cancer Backup UK: www.cancerbackup.org.uk/Home
- CancerHelp UK: www.cancerhelp.org.uk/
- Cancer Research UK: www.cancerresearchuk.org/
Section C:

Clinical Medicine
Chapter 30.

Applied Genetics

Author: Dr Daniel Sammut MD MMCFD

Date: 19th April, 2009

Reference Document:

RCGP Curriculum Statement No. 6 – Genetics in Primary Care
Introduktion

A study in general practice published in 2004 indicated that at least one in 10 patients seen in primary care has a disorder with a genetic component.1 This may take the form of single-gene disorder (e.g. thalassaemia, breast cancer, Huntington's disease), chromosomal abnormality (e.g. Down's syndrome) or polygenic inheritance (e.g. asthma, hypertension). Genetics is a rapidly evolving field and family doctors should strive to keep themselves informed about the latest advances.

Doctors will be doing more and more counselling related to genetic testing for the simple reason that these tests are becoming increasingly available. A local company offers more than 1000 tests for more than 500 different genes, including those involved in congenital disease, infection and pharmacogenetics. Genetic testing is performed for three main reasons:

• to help diagnose and treat an affected individual
• to predict the later development of disease in an individual
• to detect a carrier state
• to prevent transmission to progeny

GPs are uniquely placed to help patients benefit from genetics due to: their understanding of the long-term psychosocial aspects of illness; their skills in working with individuals in the context of their families over time; their ability to identify health problems and make appropriate referrals; their skills in coordinating the care of the affected patient; and their role in health promotion and prevention. Family doctors are also strategically placed to give genetic counselling. Besides the medical facts, this counselling includes talking to people about the ethical, legal, and social implications of tests. Pre-test and post-test counselling empowers people to make informed choices. Patients need to know what treatments or options are available should genetic tests be positive.

Genetic tests should always be requested by a doctor. With private companies investing considerable amounts of money in genetic screening, giving genetic counselling to people for over-the-counter testing may be difficult. Companies may have their own counsellors, who may be fine for legal purposes but who will be biased. Doctors need to be conversant in genetics and the surrounding social, ethical, and legal issues.2

Because of the considerable amount of genetic research, doctors are also responsible for protecting patient data. Genetic information is very sensitive because it is predictive—for example for insurance companies or employers. Doctors performing insurance or pre-employment medicals are obliged to refrain from divulging information unless the patient gives informed consent.
Other basic ethical tenets of counselling include non-directiveness, beneficence, non-maleficence, and giving priority to the needs of the individual over those of society.

Maltese health care priorities

Familial Mediterranean Fever (FMF) has a high prevalence amongst Armenians, non-Ashkenazi Jews, Levantine Arabs and Turks. A preliminary analysis of the carrier rate of gene mutations associated with FMF in the Maltese population gave an estimated frequency of 1 in 17. If this is confirmed, this elusive disease would be the most common single gene disorder on the islands.³

Beta-thalassaemia is another single-gene disorder with a high local carrier rate of 1.8%. A national screening program was initiated by the Health Department in 1991 with the goal of identifying couples at risk and providing the necessary medical management and counselling. Prenatal diagnosis has been successful in identifying the majority of Maltese families at risk of beta-thalassaemia and the thalassaemia birth incidence has decreased considerably. However, education programs for the affected families and the general public are much needed.⁴ Family doctors should take the initiative to screen couples before marriage by checking their haemoglobin level and then referring to the Thalassaemia Clinic where indicated.

Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the prevention, diagnosis and management of genetically determined disease. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care consultations with any patient affected by genetic disease or carrying defective genes.

2. Take a careful history of the symptoms experienced by the patient and his/her ideas, concerns and expectations relating to his condition.

3. Communicate information about genetics in a comprehensible way, helping patients to make informed decisions and choices about their care. Demonstrate how to offer non-directive and non-judgemental counselling.

4. Describe the epidemiology of genetic disease in the local community. Appreciate that immigrants have a different genetic make-up and risk for genetic disease (e.g. sickle-cell anaemia).
5. Solicit a detailed family history. Explain the Mendelian laws of inheritance. Draw up a genogram for a family.

6. Appreciate that genetic disease may have profound detrimental physical, psychological and social effects on the patient and his/her family. Take a holistic approach to the patient by assessing the psychological, ethical, legal and social dimensions of genetic disease on him/her and family members and intervene to help, possibly referring to support groups, counsellors or psychologists.

7. Diagnose and manage patients with genetic disease, referring to secondary care as necessary.

8. Encourage and help the patient and his/her family to access further information from reliable sources.

9. Describe the concept of pharmacogenetics.

10. Coordinate care with geneticists, other specialists in secondary care, nurses, counsellors, laboratory staff, and pharmacists for the optimal management of genetic disease.

11. Describe the different uses of genetic tests (diagnostic, predictive, carrier testing) and their limitations.

12. Describe the genetic aspects of antenatal and newborn screening programmes and their indications, uses and limitations.

13. Discuss the numerous ethical and legal controversies surrounding genetic testing.

14. Appreciate that a genetic diagnosis in an individual may have implications for the management of other family members who may ask for a consultation. Recognise that different members of the same family may have dissimilar opinions with regard to genetic testing. Demonstrate how to resolve such conflicts fairly.

15. Protect the confidentiality of the patient at all times, asking for consent to divulge information to insurance companies and employers.

16. Ensure that own beliefs do not influence the content of the consultation and the management options offered to a patient.

17. Demonstrate an awareness of their professional limits in regard to managing genetic conditions and know when and where to seek advice.
18. Strive to keep up-to-date with advances in this rapidly evolving field and their ethical implications.

**Knowledge base**

**Symptoms:**
Patients with genetic conditions may present with a wide variety of symptoms and signs and these can vary in severity and number between affected patients, even within families (e.g. variability of expression in neurofibromatosis). Anxiety about a family history of a disease, for example breast cancer, is also a common presentation.

**Common and/or important conditions:**
- *Examples of common chromosome anomalies:*
  - Down’s syndrome.
  - Turner’s syndrome.
  - Klinefelter’s syndrome.
  - Translocations

- *Examples of single gene disorders:*
  - **Autosomal dominant disorders:**
    - Adult polycystic kidney disease
    - Neurofibromatosis
    - Huntington’s disease
    - Hypercholesterolemia.
  - **Recessive disorders:**
    - Familial Mediterranean Fever
    - Haemoglobinopathies (sickle-cell disease, thalassaemias)
    - Haemochromatosis
    - Cystic fibrosis.
  - **X-linked disorders:**
    - Duchenne and Becker muscular dystrophies.
    - Haemophilia A
    - Fragile X.

- *Examples of multifactorial diseases:*
  - Familial forms of common diseases (e.g. breast and bowel cancer)
  - Disorders with a genetic component (e.g. cerebrovascular disease, cardiovascular disease, Alzheimer’s dementia, asthma).
Examples of familial cancers:
- Breast
- Colon.

Examples of conditions exhibiting variable inheritance patterns:
- Inherited forms of deafness
- Muscular dystrophies.

Investigations:
- How to draw and interpret a genogram
- How to recognise basic patterns of inheritance
- Knowledge of specific genetic tests (e.g. paternity testing)

Management and prevention:
- Management options vary depending on the individual disease but include, for example, regular surveillance for hereditary cancer
- Prevention takes the form of screening and family planning options.

Basic knowledge of genetics:
- DNA as genetic material and how mutations and variants contribute to human disease
- Patterns of inheritance: single gene, chromosomal, multifactorial.

Relevant Guidelines:
- Type 1 Diabetes, Clinical Guideline (NICE)
- Cancer Services: improving outcomes in colorectal cancers (NICE)
- Familial Breast Cancer (NICE)
- Epithelial Ovarian Cancer (SIGN)
- Breaking bad news
  (Dept. of Health, Social Services and Public Safety of Ireland)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice in the diagnosis and management of genetic disease; taking a careful history; drawing up a genogram; counselling about options and their consequences with the patient and family; reflecting on ethical tensions; always respecting patient autonomy and confidentiality; involving other health care professionals when indicated
- Tutorials on principles of genetic disease screening, diagnosis and management
- Analysis of video recorded consultations dealing with the screening, diagnosis and management of genetic disease
- Random case analysis of consultations dealing with the screening, diagnosis and management of genetic disease
- Using Educational Portfolio to record learning points and reflections

Work-based learning – in secondary care

- Observation and practice in the diagnosis and management of genetic disease; taking a careful history; drawing up a genogram; counselling about options and their consequences with the patient and family; reflecting on ethical tensions; always respecting patient autonomy and confidentiality; involving other health care professionals when indicated
- Tutorials on principles of genetic disease screening, diagnosis and management
- Using Educational Portfolio to record learning points and reflections

Other learning opportunities

- Private study of textbooks, journals and internet resources
- Interactive half-day release programme sessions dealing with the screening, diagnosis and management of genetic disease, including:
  - discussion of ethical issues
  - role-play to learn counselling skills
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with geneticists, other medical specialists, ethics experts, midwives, nurses, counsellors, psychologists, etc…
Formative Assessment

- Analysis of recorded consultations dealing with the screening, diagnosis and management of genetic disease
- Case-Based Discussion on consultations dealing with the screening, diagnosis and management of genetic disease
- Analysis of Educational Portfolio for cases dealing with the screening, diagnosis and management of genetic disease

References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No.6 – Genetics in Primary Care

Further Reading:


**Internet Resources:**

- Directory of UK genetics centres:  
  www.bshg.org.uk/genetic_centres/uk_genetic_centres.htm
- UK Genetic Testing Network:  www.ukgtn.nhs.uk
- Online Mendelian Inheritance in Man (OMIM):  
- The National Electronic Libraries for Health:  
  www.library.nhs.uk/genepool/
- National Cancer Institute:  
- The NHS National Genetics Education and Development Centre:  
  www.geneticseducation.nhs.uk/
- Genetics in Primary Care (GPC) Training Program Curriculum Materials:  
  http://genes-r-us.uthscsa.edu/resources/genetics/primary_care.htm
Chapter 31.

Paediatric and Adolescent Health

Author: Dr Daniel Sammut MD MMCFD

Date: 20th November, 2008

Reference Document:

RCGP Curriculum Statement No. 8 – Care of Children and Young People
Introduction

Rationale

Twenty percent of the Maltese population is under 18 years of age.¹ Most of the care for children and young people is delivered outside the hospital setting. Family doctors provide routine health and developmental surveillance, immunization, and care for episodes of illness. Ill children and young people must be looked at holistically, taking into account stage of development, long-term conditions, family history, psychosocial background, acute illness and minor illness in all the settings in which children are treated (including self-management). GPs have an important role in the care of children and young people, in partnership with other members of the primary healthcare team and, when appropriate, specialist colleagues. Every child and young person will come into contact with some health or social care services, and these formative experiences will influence their future attitudes and the use they make of these services. GPs need to be aware of these influences.

The United Nations Declaration of the Rights of the Child (principle 2) states that:  ‘The child shall enjoy special protection, and shall be given opportunities and facilities, by law and by other means, to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity.’²

Children and young people are intrinsically vulnerable because of their total dependence on adults, and their inability to comprehend and articulate their needs well. Furthermore, a child’s and young person’s experiences in early life – and even before birth – have a crucial impact on their life chances and future health. Therefore, the family doctor should strive to promote health in all contacts with his young patients and intervene promptly and effectively in all cases of suspected child neglect or abuse.
Maltese health care priorities

Neonates are examined at birth by a paediatrician in hospital. However, the later health and developmental check-ups at age 6 weeks, 8 months, 18 months and preschool can, and should, be the competence of the family doctor. The latter knows the child’s family, would be aware of any risk factors for health (such as a depressed mother), and can intervene holistically. Unfortunately, many Maltese parents take their children to the paediatrician even for routine check-ups and vaccinations. In the long term, this situation may lead to a loss of the skills of GPs in examining the neonate and in assessing developmental milestones in infancy. Needless to say, the family doctor must promptly refer any child to a paediatrician when necessary.

Exclusive breast-feeding is undoubtedly the best form of nutrition for infants under the age of 6 months. Regrettably, only about 40% of Maltese mothers breastfeed their infants. The family doctor has a relationship with his/her female patients, and is in a good position to encourage breastfeeding throughout pregnancy and provide advice and support particularly in the puerperium.

The advent of routine childhood immunisation has had a tremendous impact on the incidence of serious childhood infections, practically eradicating smallpox, poliomyelitis, diphtheria, tetanus, and haemophilus influenzae B disease, while greatly diminishing the incidence of pertussis, measles, mumps, rubella and tuberculosis. These vaccines are included in the National Immunisation Schedule and are administered for free to all Maltese children and adolescents at the Government Health Centres. Some parents prefer to take their children to their private GP for vaccination. Hence, the family doctor should be well-versed in the immunisation schedule, and also know about other vaccines available only on the private market (e.g. rotavirus; heptavalent pneumococcal; varicella-zoster virus; human papilloma virus).

The consulting rate for children under the age of five is the highest from all age groups, as these children are most vulnerable to upper respiratory tract infections, acute bronchiolitis and asthma. The ISAAC study, which focused on children aged 6-7yrs and 13-14yrs, found that 15% of children in Malta reported symptoms of asthma. When 56 different countries where compared, the prevalence of allergic rhinoconjunctivitis symptoms was most frequent in Maltese children (21%). Hence, the GP should be an expert in the management of these respiratory disorders in youngsters.

Most childhood conditions are self-limiting and improve naturally with simple symptomatic measures. In these instances, the family doctor should use an evidence-based approach to treatment, and prescribe antimicrobials, systemic corticosteroids, bronchodilators and cough syrups judiciously. In addition, a greater emphasis on comprehensive prevention of respiratory disease is required in primary care.
The family doctor needs to develop special skills to deal with physically and mentally disabled children. These skills include understanding the child’s normal health status and how he/she interacts with the physical and social environment. Since these patients frequently have multiple associated health problems that may present atypically, and many are unable to verbalise their symptoms, the GP must use additional skills of examination and diagnosis. Recognition of the possible strain on family members, and a holistic approach in management is required to ensure the best outcome for the child and his family. Adequate knowledge of, and referral to, support agencies is frequently helpful.

The influx of asylum seekers from African states to our shores in recent years brings new challenges to family medicine in Malta. These people have different cultures, languages, and risk factors for disease (e.g. sickle-cell anaemia), and they often live in sub-standard housing with suboptimal hygiene. These children may be more prone to certain infections such as scabies, ringworm and tuberculosis. Their families are often disrupted by geographical separation or violence back in their home country. Moreover, these children are educationally disadvantaged. Maltese GPs should appreciate these problems and endeavour to help these vulnerable young patients.

Adolescents and teenagers have very different needs from those of children. The World health Organisation Regional Office for Europe carried out an extensive Health Behaviour in School Children Survey in 2005/2006 involving 41 countries. The local sample included 1389 students between 11 and 15 years of age. The results for Maltese youth are quite disturbing:

- 16% of 11-year-olds, 22% of 13-year-olds, and 28% of 15-year-olds rate their health as being fair or poor.
- 39% of youths aged 11 years, 47% of those aged 13, and 52% of those aged 15 years report multiple health complaints more than once a week.
- Malta has the highest prevalence (from 34 countries) of overweight (pre-obese and obese) and obese youth at 25.4% and 7.9% respectively.
- Only around 50% of youths eat breakfast every school day and only 45% eat fruit every day. On the other hand, 45% drink soft drinks daily.
- Just 20% of 11 to 15-year-olds report at least one hour of moderate-to-vigorous physical activity daily.
- 43% of youths report at least one medically attended injury in the last year, with a (expected) preponderance of males.
- 25% of 15-year-olds report smoking the first time at age 13 or younger. At age 11 years, 9% of boys and 11% of girls smoke, and these figures rise to 19% and 24% respectively at age 15 years.
- 12% of youths aged 11 years, 24% of those aged 13, and a shocking 45% of 15-year-olds drink alcohol at least once a week.
- 12.5% of 15-yr olds report to have used cannabis; 7.5% in the last month.
- In 2007, 219 out of 812 (26.9%) births to unmarried mothers involved teenagers aged 15 to 19. Four babies were born to mothers younger than 15.
- 48% of patients attending the GU clinic report having casual sex while 63% admit to never using protection during casual sex. 
- There is a rise in the local incidence of all types of sexually-transmitted disease.

The above shocking statistics highlight very important areas where coordinated and comprehensive preventative interventions initiated by government bodies concerned with youth, health and education, by NGOs, and definitely by the primary health care team are essential. The Department for Health Promotion and Disease Prevention and Sedqa organize frequent educational campaigns targeted at young people to promote healthy eating, regular exercise, and avoidance of smoking, alcohol and drugs. The family doctor is in a good position to ask about exercise, smoking, alcohol and drug use, to screen all his young patients for overweight and to provide tailored health advice to the children and their families.

Adolescence is a time of turbulent physical, emotional and social changes. Teenagers are prone to emotional disturbances (depression and anxiety) and distorted body image (anorexia nervosa and bulimia). A medically ‘trivial’ condition such as acne can have a profound psychological impact on the self-esteem of the individual. The GP should be on the lookout for these problems and intervene in a sensitive manner to help these young patients.

It is essential that the GP keeps in mind issues of consent, confidentiality and communication when dealing with adolescents. These issues are of critical importance when broaching the subject of sexual activity, and when exploring the need for sexual health advice. When faced with a teenage girl who requests contraception, the family doctor should take a careful history, suggest to her to inform her parents, and then negotiate a management plan with the girl depending on her ability to make an informed decision.

Adolescents who have chronic conditions (e.g. insulin-dependent diabetes; asthma) tend to pass through a stage of rebellion characterized by non-compliance with treatment, conflict with parents and aversion to doctors. GPs should encourage the cooperation of these youngsters by using age-appropriate communication and empowering them to take care of themselves as much as possible.

The Maltese educational system is notoriously competitive. About 60% of adolescents between 13 and 15 years of age feel pressured by schoolwork. In addition, 8% of the same population report having been bullied at school. The family doctor should appreciate that a change of school, bullying, schoolwork, private tuition, and exams can give rise to psychological stress on the youngster and his/her parents. These problems frequently present to the GP as psychosomatic symptoms such as abdominal pain or headache in a child.
Learning Outcomes

The following learning objectives relate specifically to the family doctor’s role in
the care of children and adolescents. The outcomes describe the knowledge,
skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with children and their families – and, with
   adolescents, on their own.

2. Describe the importance of treating children and young people equitably,
   and with respect for their beliefs, preferences, dignity and rights.

3. Demonstrate adequate age-appropriate consulting skills to solicit a good
   history from the young patient and communicate effectively with his/her
   relatives.

4. Appreciate the importance of the social (including educational) and
   psychological impact of disease on the child and his/her family.

5. Appreciate the important contributions of the mother, father, and frequently
   the grandparents (especially the grandmother) in the upbringing of the
   Maltese child.

6. Recognize that stress in children frequently presents with psychosomatic
   symptoms such as abdominal pain and headache. Understand that a
   health problem in a child may be caused by dysfunctional family dynamics.

7. Perform a complete general examination of the neonate, infant or older
   child.

8. Describe the normal childhood developmental milestones and the
   physiological stages of puberty.

9. Demonstrate knowledge of the relative prevalence and incidence of
   childhood disease in the local community to assist diagnosis.

10. Recognize particular groups of patients at higher risk of health problems
    (e.g. low social class; mental or physical disability; asylum seekers)

11. Apply sound evidence-based criteria to assess severity of childhood
    illnesses, to decide when to refer a patient to secondary care and whether
    the referral should be as an emergency, urgent or routine appointment.
12. Demonstrate an evidence-based approach towards investigation and management of childhood and adolescent disease. Appreciate that most childhood conditions are self-limiting and improve naturally with simple symptomatic measures.

13. Weigh risks against benefits when treating youngsters. Be familiar with the common drugs used to treat children, describe age-appropriate modes of drug delivery (e.g. baby haler) and show how to adjust doses to weight.

14. Negotiate a realistic and comprehensive management plan in partnership with parents whose children are ill, particularly with chronic disease. Involve older children and adolescents in decision-making and empower them to self-manage their conditions as far as practicable.

15. Recognize that the autonomy of children increases with age and mental development, and respect it.

16. Appreciate that adolescents have health and social needs that are distinct from those of children. Respect the confidentiality of adolescents, whilst balancing it with the needs of the parents to be informed.

17. Promote a health lifestyle by educating the child or adolescent and his/her family about the need for education, personal hygiene, regular exercise, healthy nutrition, and sexual health and the prevention of obesity, tobacco smoking, alcohol use, drug misuse and accidents.

18. Describe the National Immunisation Schedule and the possible adverse effects and contra-indications of vaccines, encourage uptake of these immunizations, and administer them as necessary.

19. Recognize that disabled children often have multiple associated health problems and that their families need support. Explain the role of the Child Development Assessment Unit and how multidisciplinary organizations (e.g. Aġenzija Appoġġ and Sapport; Equal Partners Foundation; Eden Foundation; Down Syndrome Association; ADHD support group) may provide such support.

20. Describe the signs of child abuse. Intervene urgently when child abuse or neglect is suspected, liaising with the police and Aġenzija Appoġġ.

21. Be aware of the various services provided by Aġenzija Appoġġ for socially disadvantaged children and their families, and how to refer to these services.
22. Be aware of the various services provided by Sedqa in the sphere of substance abuse and know how to refer affected youngster and their families.

23. Appreciate the importance of education, and issue school absence certificates only when medically indicated. Liaise with school authorities in cases of infectious disease, suspected bullying or other abuse. Appreciate that a change of school, bullying, schoolwork, private tuition, and exams can give rise to psychological stress on the youngster and his/her parents.

24. Coordinate care with other health care professionals, such as paediatricians, midwives, practice nurses, community nurses, physiotherapists, psychologists, speech and language pathologists and pharmacists to enable management of disabilities or chronic disease. Act as an advocate for the child or family when necessary.

25. Notify the following conditions to the Infectious Disease Prevention and Control Unit:

- AIDS, acute encephalitis; acute flaccid paralysis; anthrax;
- antimicrobial resistance; bacterial meningitis; botulism;
- brucellosis; chickenpox/shingles; chlamydia infection; cholera;
- congenital rubella syndrome; diphtheria;
- dysentery (amoebic and bacillary); echinococcosis; erysipelas;
- E.coli:enterohaemorrhagic; food-borne illness; giardiasis;
- Haemophilus influenza group B; hepatitis A; hepatitis B; hepatitis C;
- HIV infection; influenza; legionellosis;leishmaniasis; leprosy;
- Malaria; measles; meningococcal disease; mumps; nosocomial infection;
- pertussis; plague; pneumococcal infection; pneumonia; poliomyelitis;
- rubella; salmonellosis; scarlet fever; SARS; smallpox;
- toxoplasmosis; tuberculosis; typhoid fever; typhus.

### Knowledge base

**Symptoms:**
Cough, dyspnoea, rhinitis, wheezing, vomiting, diarrhea, fever, abdominal pain, drowsiness, developmental delay, infantile colic, ‘failure to thrive’, rash, abnormal growth, behavioural problems.

**Common and/or important conditions:**
- Neonatal problems: birthmarks, feeding problems, heart murmur, sticky eye, jaundice
- Constipation, abdominal pain (acute and recurrent)
- Pyrexia, febrile convulsions
- Upper respiratory tract infections, croup, bronchiolitis, infectious mononucleosis, pertussis, pneumonia
- Otitis media: acute and chronic, serous and suppurrative
- Sensory deficit especially deafness, congenital cataract
- Gastroenteritis: viral, bacterial, parasitic
- Viral infections: measles, mumps, rubella, varicella, parvovirus
- Impetigo
- Fungal infections
- Urinary tract infection
- Infestations: head-lice, threadworms, scabies
- Meningitis
- Foreign bodies in body cavities, poisoning
- Fractures and ‘pulled elbow’
- Allergic rhinitis, asthma
- Atopic eczema
- Epilepsy
- Diabetes
- Normal child and young person development (physical and psychological).
- Psychological problems: enuresis, encopresis, bullying, school refusal, behaviour problems including tantrums
- Learning disability: dyslexia, attention deficit hyperactivity disorder, autism spectrum disorder, Down’s syndrome
- Child abuse, deprivation
- Mental health problems such as, depression, eating disorders, substance misuse and self-harm

Treatment:
- Commonly used drugs: formulations, indications, contra-indications, side-effects, dosage according to weight

Prevention:
- Exclusive breastfeeding up to 6 months of age
- Healthy nutrition and exercise for children and young people
- Social and emotional wellbeing
- Keeping children and young people safe; child protection, accident prevention
- Immunisation
- Avoiding smoking, avoiding the use of volatile substances and other drugs, and minimising alcohol intake
- Reducing the risk of teenagers getting pregnant or acquiring sexually transmitted infections
- Understand avoidance of triggers and use of prophylaxis for allergic conditions
Psychomotor skills

- The examination of the neonate, infant and older child
- Giving vaccines
- Suturing a wound in a child; reduction of ‘pulled elbow’
- Advanced life support of infants, children and young people

Relevant Guidelines:

- **Antenatal and Postnatal Care** (NICE)
- **Breastfeeding Policy for Malta** (Department of Health, Malta)
- **Nutrition** (Dept. of Health Promotion and Disease Prevention)
- **Increasing Physical Activity** (NICE, WONCA)
- **Obesity in Adults and Children** (NICE)
- **Guideline to Effective Immunisation** (Health Promotion Dept; Dept. of Pharmacy, University of Malta 2006)
- **Antenatal and Postnatal Care** (NICE)
- **Best practice statement: routine examination of the newborn** (NHS Quality Improvement Scotland)
- **Child growth** (Child Growth Foundation, UK)
- **Brief interventions and referral for smoking cessation in primary care** (NICE)
- **Alcohol Misuse** (Dept. of Health Promotion and Disease Prevention)
- **Global Initiative for Asthma** (GINA)
- **An evidence-based guideline for the management of children presenting with acute breathing difficulties** (Paediatric Accident and Emergency Research Group)
- **Urinary tract infection in children: diagnosis, treatment and long-term management** (NICE)
- **Feverish illness in children** (NICE)
- **Attention deficit and hyperkinetic disorders in children and young people** (SIGN)
- **Management of pain in children** (British Association for Accident and Emergency Medicine)
- **Referral guidelines for suspected cancer** (NICE)
- **Mental wellbeing of children in primary education** (NICE)
Teaching and learning resources

Work- based learning – in primary care

- Observation and practice of skills such as full examination of the neonate, infant and child; immunisation; suturing of wounds in children; formulating a differential diagnosis; evidence-based prescribing and calculating drug doses.
- Tutorials on childhood disease epidemiology and clinical presentation; differential diagnosis; investigation; and management.
- Random case analysis of consultations involving youngsters.
- Analysis of video recorded consultations involving youngsters.
- Using Educational Portfolio to record learning points and reflections.

Work- based learning – in secondary care

- Observation and practice of skills such as full examination of the neonate, infant and child; immunisation; suturing of wounds in children; formulating a differential diagnosis; evidence-based prescribing and calculating drug doses.
- Observation of multidisciplinary approach and teamwork.
- Tutorials on childhood disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources.
- Interactive half-day release programme sessions about problems in childhood and adolescence.
- Conferences and courses (both local and international) about problems in childhood and adolescence.
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with paediatricians, midwives, nurses, pharmacists, speech and language pathologists, child psychologists, social workers, physiotherapists, etc...
- Voluntary participation in community projects involving children and youth, possibly also serving underprivileged members of the community (e.g. The Mother Theresa Community in Cospicua, Creches run by the
Ursuline Sisters in G’Mangia and Sliema) or in refugee shelters and camps.

**Formative Assessment**

- Analysis of video recorded consultations involving children and adolescents.
- Mini-clinical examination e.g. examination of the neonate and infant.
- Directly observed procedures e.g. measuring head circumference, administering nebulised treatment or vaccination to a child.
- Analysis of Educational Portfolio.
- Case-Based Discussion on consultations involving children and adolescents.
- Patient satisfaction questionnaire.
- Multisource feedback.

**References:**

1. UNICEF data available at: http://www.unicef.org/infobycountry/malta.html (last accessed 11.11.08)

8. Carabot P. Interview for Maltatoday on Sunday – 18.11.07
10. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health

**Reference Document used as a model:**

Royal College of Family Doctors; 2007. Curriculum Statement No. 8 – *Care of Children and Young People*

**Further Reading:**


**Internet Resource:**

- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information:  http://cks.library.nhs.uk/home
Chapter 32.

Men’s Health

Author: Dr Daniel Sammut MD MMCFD

Date: 5th December, 2008

Reference Document:

RCGP Curriculum Statement No. 10.2 – *Men’s Health*
Introduction

Rationale

In 2005, the life expectancy of men in Malta was 81.2 years, 3.2 years less than that of women.¹ Men tend to take more risks with their health than women, which are reflected in higher rates of alcohol excess, smoking, drug misuse, poor diet, sexually transmitted diseases, accidents and crime. They are also less inclined to consult doctors. Men also have a higher risk of committing suicide.

Traditionally, men were the only bread-winners for the family and they would often work long hours to support their loved ones. Maltese society is in transition, with women increasingly participating in the labour market, and competing for jobs with men. Traditional roles in the home may still exist, but men are becoming increasingly involved in the care of children and with housework. Some men may find it difficult to adapt, and are more prone to develop depression. Unemployment, and sometimes even retirement, may have a devastating impact on the general health of the individual.

The influx of (predominantly young male) asylum seekers from African states to our shores in recent years brings new challenges to family medicine in Malta. These men have different cultures, languages, and risk factors for disease (e.g. sickle-cell anaemia, TB), and often live in sub-standard housing on poor income. Most are unemployed, and many others are employed illegally with inadequate pay, lack of social security and sometimes without regard to their health. The Maltese GP needs to adapt to these realities in his/her patient community.

Erectile dysfunction and male hypogonadism have become more ‘visible’ to patients and GPs in recent years, mainly due to the discovery of specific phosphodiesterase type 5 inhibitors. It has been recognized that these conditions are very common, that they result in considerable psychosocial distress, and they are also treatable. Unfortunately, men are often too embarrassed to mention these problems to their GP. Therefore, the family doctor should take the initiative to sensitively inquire his/her patients who are at risk for these conditions (e.g. patients on anti-hypertensive or anti-depressant treatment) in order to offer help.

Male infertility is another problem that may have profound psychological effects on the individual, and the GP should provide support throughout the process of investigation, and possibly intervention, and then offer follow-up.
Maltese health care priorities

The World Health Organisation estimates that 71.4% of Maltese males have a BMI>25kg/m² while 25.9% of males have a BMI>30kg/m². Obesity carries a high burden of morbidity and mortality, and it also a major contributor to the development of diabetes mellitus, which is already estimated to affect about 11.6% of the population. 29.2% of Maltese men smoke tobacco.

The main causes of death in men are coronary artery disease and stroke, followed by cancer. The commonest cancers in males (excluding non-melanocytic skin cancer) occur in the prostate, lung and colorectum. The latter two types are also the most deadly.

The statistics quoted above clearly demonstrate the need for promotion of health and prevention of disease in men. Regrettably, consultation rates for men in general practice are consistently lower than those for women, even though most GPs in Malta are male. Men are less likely than women to consult when they are ill, let alone when they feel well. For this reason, the GP should seize the opportunity to promote general health whenever a man walks into the clinic.

Prostate, lung and testicular cancer screening are still controversial, but colorectal cancer screening is proven to reduce mortality. Therefore, it is recommended to perform yearly faecal occult blood tests for patients over 50 years of age, and if these are positive to proceed with sigmoidoscopy or colonoscopy.

Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the care of men. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with male patients.

2. Appreciate the importance of the social and psychological impact of illness on the patient, his/her family, friends, dependants and employers.

3. Demonstrate a non-judgemental, caring and professional consulting style to minimise embarrassment of male patients, particularly when they present with genito-urinary symptoms. Detect whether the male patient wishes to see a doctor of the same sex and arrange this where practical and appropriate.
4. Explain the impact of gender on individual cognitions and lifestyle, and formulate strategies for responding to this.

5. Recognise that men consult less frequently and have more illness. This should lower the doctor’s threshold for suspicion of significant disease. Appreciate that men may be less articulate about their health compared with women, and describe strategies to compensate for this during the consultation.

6. Recognise that men from different cultural backgrounds have widely different attitudes towards health and expectations of the doctor. Recognise important variations in men’s health and service provision according to ethnicity and social class.

7. Identify the patient’s health beliefs regarding illness and lifestyle, and either reinforce, modify or challenge these beliefs as appropriate. Promote wellbeing by applying health promotion and disease prevention strategies appropriately. Use consultations with infrequent attenders opportunistically for health education.

8. Utilise knowledge of the relative prevalence of all medical conditions in men compared with women to assist diagnosis.

9. Demonstrate knowledge and describe the management of the key medical conditions that affect men.

10. Intervene urgently when patients present with a testicular or penile emergency, i.e. testicular torsion, paraphimosis, injury and priapism.

11. Explain the indications for urgent referral to specialist services, for patients with suspected cancer.

12. Describe the features of a successful men’s health service. Evaluate the effectiveness of the primary care service you provide from the male patient’s point of view.

13. Describe the changing gender roles that men are expected to conform with. Appreciate the importance of the parental fathering role in family structures.

14. Appreciate the psychological, social, cultural and economic problems caused by unemployment (and sometimes also by retirement) amongst men.
15. Recognise that violence and aggression are more common amongst men, assess the risk of harm to self or others and act appropriately.

16. Recognise that relationships with male patients will be different depending on the gender of the doctor, and intervene when this is adversely affecting the doctor–patient relationship, e.g. sexual advances from the patient.

17. Appreciate that male circumcision is important for several religious groups.

18. Evaluate the arguments for and against a national PSA screening programme.

**Knowledge base**

**Symptoms:**
- Dysuria, frequency of micturition, haematuria, prostatism, retention of urine
- Abdominal and loin pains
- Testicular lumps, testicular pain
- Sore or painful penis, ulceration
- Erectile dysfunction.

**Common and/or important conditions:**
- Testicular conditions e.g. cryptorchidism, varicocele, haematocele, hydrocele, epididymo-orchitis and epididimitis
- Penile problems e.g. hypospadias, Peyronie’s disease
- Male-specific cancers: testicular and prostate cancer
- Benign prostatic hypertrophy (BPH) and prostatitis
- Sexual dysfunction including psychosexual conditions, premature ejaculation and erectile dysfunction
- Male contraception: vasectomy
- Male infertility
- Circumcision (religious and non-religious)
- Mental health issues including depression, suicide and hypogonadism (andropause)
- Sexually transmitted infections (covered in detail in Chapter 45 - Sexual Health).

**Investigations:**
- Urinalysis, MSU and dipstick
- Blood tests including renal function tests and prostate specific antigen (PSA) test
- Semen analysis
- Knowledge of secondary-care investigations including prostate biopsy and testicular ultrasound.
Treatment:
- Understand principles of treatment for common conditions managed largely in primary care – benign prostatic hypertrophy, prostatitis, sexual dysfunction, infertility, etc.
- Injection of anti-androgens for testicular cancer.
- Testosterone injection or implant for hypogonadism.

Emergency care:
- Acute management of testicular torsion
- Acute management of paraphimosis and priapism
- Acute urinary retention
- Acute management of ureteric colic.

Prevention:
- Health education regarding lifestyle and risk-taking behaviour, sexual and mental health.

**Psychomotor skills**

- Testicular examination.
- Digital rectal examination.
- Catheterisation.
- Injection of anti-androgens for testicular cancer
- Testosterone injection or subcutaneous implant.

**Relevant Guidelines**

- *Brief interventions and referral for smoking cessation in primary care* (NICE)
- *Increasing Physical Activity* (NICE, WONCA)
- *Obesity in Adults and Children* (NICE)
- *Nutrition* (Dept. of Health Promotion and Disease Prevention)
- *Alcohol Misuse* (Dept. of Health Promotion and Disease Prevention)
- *Guidelines on the management of erectile dysfunction* (British Society for Sexual Medicine)
• Guidelines on assessment, therapy and follow-up of men with lower urinary tract symptoms suggestive of benign prostatic obstruction (European Association of Urology)
• Referral guidelines for suspected cancer (NICE)

Teaching and learning resources

Work-based learning – in primary care
• Observation and practice of consultations for men; well-man check-ups; performing general examination and genito-urinary check-ups; formulating a differential diagnosis; interpreting laboratory results; prescribing for disease; health education and screening.
• Tutorials on principles of men’s disease epidemiology; clinical presentation; differential diagnosis; investigation and management.
• Random case analysis of consultations for men.
• Analysis of video recorded consultations for men.
• Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care
• Observation and practice of consultations for men; well-man check-ups; performing general examination and genito-urinary check-ups; formulating a differential diagnosis; interpreting laboratory results; negotiating a management plan; prescribing for disease; health education and screening.
• Observation of multidisciplinary approach and teamwork.
• Tutorials on principles of men’s disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
• Using Educational Portfolio to record learning points and reflections.

Other learning opportunities
• Private study of GP textbooks, current guidelines, BNF, journals and internet resources
• Interactive half-day release programme sessions about men’s health
• Conferences and courses (both local and international) dealing with men’s health
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with urologists, general surgeons, physicians, nurses, pharmacists, etc...

**Formative Assessment**

• Analysis of video recorded consultations for men
• Mini-clinical examination e.g. testicular examination, digital rectal examination
• Directly observed procedures e.g. measuring BMI; subcutaneous testosterone implants; catheterisation
• Analysis of Educational Portfolio
• Case-Based Discussion on consultations for men
• Patient satisfaction questionnaire
• Multisource feedback.

**References:**

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 10.2 –

Men’s Health

Further Reading:

- Shröder F et al. The European Randomized Study of Screening for Prostate Cancer (2009) Screening and Prostate-Cancer Mortality in a Randomized European Study. NEJM. Vol 360; Issue13:1320-8

Internet resources:

- International Men’s Health Week: annual and synchronised around the world. http://www.menshealthweek.org/
- The International Society for Men’s Health and Gender: http://www.ismh.org/ismh/english/home.htm
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 33.

Women’s Health

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Date: 8th March, 2009

Reference Document:
RCGP Curriculum Statement No. 10.1 – Women’s Health
Introduction

Rationale

Women’s health is the field of medicine that addresses the health care needs particular to the female gender. It includes the screening, diagnosis and treatment of conditions that are:

- unique to women (gynaecological problems)
- more common in women (e.g. autoimmune disorders)
- require different treatment in women (eg, myocardial infarction).

(the latter 2 are dealt with in detail in the relevant chapters)

Family doctors provide a significant percentage of their services to women and are the only doctors who provide care to women across the lifespan. In addition, the majority of the patients seen by family doctors are female. Family doctors should be knowledgeable about women’s health and confidently competent about handling women’s health concerns and needs. In so doing, they will be in a position to directly provide optimal care to this category of patients, and indirectly will be impacting on the health and well being of another significant part of the community, i.e. their dependants and families.

Delivering an optimal health service to women will reap the benefits from the community at large. This will ensure women have a healthy start in life through health education and promoting healthy lifestyles. It will help them maintain a good quality of life through adequate support in their health needs as well as provide appropriate age and risk related screening. It caters for the provision of the good health of mother-baby dyad through its maternity services and has far reaching potential to impact on all those close to this dyad and the family unit - the building blocks of the community.

Health promotion needs to reinforce its methods to empower more women to assume control over their lives by engaging in a healthy lifestyle. This should be ideally based on a good balance between work and life, healthy eating, drink and exercise habits, ability to make healthy lifestyle choices concerning sexuality and avoiding any form of substance abuse. Regular screening should be an integral aspect of well women care.

Women’s concerns often relate to the menstrual cycle, pregnancy, contraception, menopause, urinary and faecal incontinence, urinary symptoms, vaginal discharge, breast lumps and pain, over and above the advise sought for other conditions which are common to both sexes. The family doctor can manage the majority of concerns, however as the option is locally feasible, some women seek direct advice from other specialists. This is particularly true for antenatal care and screening for cervical cancer. Both areas can and should be effectively dealt with.
by the family doctor. Some women will however need referral to hospital for further investigations or surgical procedures.

Family doctors have the responsibility to provide holistic care, taking on board both mental as well as the physical well being. On a subliminal but none the less very important front, good quality care will serve as a guardian for the detection of forms of violence and abuse, a silent reality which has serious negative connotations and implications for the quality of life for women, their dependents and the community. The family doctor needs to be an advocate for women in abusive relationships, and has to be ever vigilant to detect it. This problem cannot be addressed unless it is detected. None of this is possible without the family doctor being competent in many domains, however the humanistic qualities of compassion, empathy and trust will be utilised and put to the test in these circumstances.

Maltese health care priorities

Similar to findings in many western countries, recent decades have witnessed many changes in lifestyles, with progress registered in the quality of life for many. Increasing numbers of women are in employment and, a good proportion of these have sedentary jobs for long hours with limited opportunity for physical activity or exercise. Juggling work and home demands can add stress and a source of anxiety for many.

The tourist industry together with the influx of illegal migrants, contributes to a constant increase in the mingling of people, ideas and beliefs. Ultimately this is contributing to a change in both our ‘memes’ as well as the genetic pool of our islands. Young generations bring to family medicine new cultural contexts, ideas and expectations. Understanding of these contexts is even more crucial for women’s health. Some cultures and faiths impose strict codes of conduct on procedures of consultation, communication and examination with which the Maltese family doctor might not be familiar. The Maltese family doctor needs training to be culturally competent and humble, to enable reaching out to all effectively.

Change in values and insufficient or unheeded education are translating in females engaging in sexual activity at an earlier age, tendency to be promiscuous, and many fail to protect themselves, with resultant high rates of unplanned and teenage pregnancies and higher incidences of sexually transmitted diseases. More effective educational strategies reaching young females is desirable to reverse this trend and its consequent cascade of negative influence on the community. Oral contraception is requested more frequently by an increasingly younger female population, with occasionally requests for the ‘morning after pill’ from young holiday makers and foreign students. Ethical considerations and education are important to help future GP’s feel competent to deal with such requests sited to the Maltese context.
With the Maltese community witnessing more separations and children born out of wedlock, one parent families run by young mothers are becoming more common. Single mothers of all ages bringing up children on their own, may be more vulnerable to stress related mental problems and need to be well supported by their family doctor to keep them functioning and in good health.

Local breastfeeding rates are still very low, with breastfeeding at 6 months of age at a reported low level of ~10%. Much needs to be done to encourage breastfeeding both through better education, promotion and support of the young mother who needs to return to work. In this high tech era, young girls are engaging less in desired healthy and sports activities in their leisure time. They seem to indulge more frequently in calorie dense food with Maltese school girls ranking high on the obesity scale. As obesity is a risk factor for many diseases, amongst others the already highly prevalent diabetes and cardiovascular disease, reversing these trends is important.

Girls are inclined to acquire a taste for alcohol and to smoke more and start at an early age. The latter seems to be a common way of socialising for many, and resultant disinhibited behaviour under the influence of alcohol may lead to other irresponsible behaviour, possibly explaining some of the teenage pregnancies and rising incidence of STDs.

More needs to be done to continue promoting screening and preventive aspects of women’s health to the benefit of the community at large. On a positive note, screening services for breast and cervical cancer and bone density assessment are being improved, with shorter waiting times for appointments. Family doctors can be entrusted to do more of the maternity care services which they can adequately provide, taking off the load from the hospital sector.

Family doctors are pivotal in the delivery of an effective health service sensitive to women’s health needs. They are, after all, in the best position to make a difference to women’s health, especially when they deliver a high quality service.

**Learning Outcomes**

The following learning objectives are to be addressed during the training period. This will facilitate the trainee’s mastery of competency in addressing issues relating to women’s health concerns.

**By the end of the specialist training, the trainee is expected to:**

- Demonstrate knowledge of women’s health problems, conditions and diseases.
• Describe how practice management issues impact on the provision of care to women including choice and availability of female doctors.

• Facilitate continuity of care, respect the patient’s confidentiality and maintain patient records that are accurate.

• Deal with particular sensitivity in those cases involving family issues, domestic violence, termination of pregnancy, sexually-transmitted infections and ‘partner notification’.

• Liaise with other local support services, networks and groups for women (e.g. family planning, breast clinic, domestic violence resources).

• Communicate sensitively with women about sexuality and intimate issues.

• Recognise that many women consult for lifestyle advice, and that GPs should not over-medicalise these issues or be judgemental in their advice.

• Be aware of gender issues, power and the patient–doctor relationship, and know how to prevent these issues adversely impacting on women’s health care.

• Recognise the different sexual inclinations of some women and to be aware of the needs of lesbian or bisexual women, without imposing any judgements and avoid making assumptions such as on the need for contraception.

• Describe the importance of confidentiality and informed consent in relation to the care of women.

• Describe the issues relating to the use of chaperones.

• Describe the impact of gender on individual behaviour and lifestyle, and formulate strategies to best handle problem issues.

• Be sensitive to the possibility that a female patient may prefer to consult and be examined by a female doctor and arrange this where practical and appropriate.

• Elicit a history, carry out an examination, make a diagnosis based on incremental investigations if and as appropriate, in a manner that is comfortable for both the patient and the GP.
• Recognise the prevalence of domestic violence, be vigilant about latent signs of this problem and demonstrate the ability to question patient sensitively when this issue is suspected.

• Intervene urgently if malignancy is suspected and have a low threshold for the referral of breast lumps.

• Identify those cases when early or immediate intervention is necessary, being able to identify patients presenting with a gynaecological emergency, in particular ectopic pregnancy, acute pelvic pain and heavy vaginal bleeding.

• Explain the importance of risk factors in the diagnosis and management of women’s problems.

• Outline relevant prevention strategies (e.g. safer sex, pre-pregnancy counselling, antenatal care, immunisation, preventing osteoporosis).

• Implement evidence-based screening strategies relevant to women and discuss their advantages/disadvantages.

• Appreciate the importance of promoting health and a healthy lifestyle in women, and in particular demonstrating awarenesss of the impact of this on the unborn child, growing children and the family and the community.

• Understand the impact of other illness, for both the patient and her family, on the presentation and management of a woman’s health problem.

• Understand the issues of equity and access to health information and services for women.

• Evaluate the effectiveness of the primary care service he/she provides from the female patient’s point of view.

• Appraise the role of well-woman clinics in primary care and identify windows of opportunity to promote their use whilst women consult for health concerns other than those related to gender.

**Holistic aspects**

• Discuss the psychosocial component of women’s health and provide women patients with additional emotional and organisational support when needed e.g. issues relating to unplanned pregnancy, breast cancer, unemployment, sexually transmitted diseases, fertility problems.
Contextual aspects
- Outline legislation relevant to women’s health e.g. relating to contraception for minors, handling cases of alleged rape.

Attitudinal aspects
- Recognise personal values, attitudes and approach to ethical issues relating to women’s health e.g. abortion, contraception for minors, consent, confidentiality, cosmetic surgery, promiscuous behaviour.
- Describe the impact of culture and ethnicity on women’s perceived role in society and that different cultures have different ideas, concerns, expectations and health beliefs, and to be adept to tailor health care accordingly.

Scientific aspects
- Describe the different methods of contraception, indications and contraindications to their use, side effects, drug interactions, side effect, prescribing information.
- Describe the local guidelines that impact on healthcare provision for women’s problems with particular reference to screening programmes: breast and cervical cancer, osteoporosis.

Knowledge base

Symptoms:
- Breast pain, breast lumps, nipple discharge
- Urinary problems: dysuria, frequency and incontinence
- Problems with periods
- Vulval irritations and vaginal discharge
- Menopause and associated problems
- Post- menopausal bleeding
- Emotional problems, low moods and symptoms of depression, PMS
- Dyspareunia, pelvic pain, endometriosis
- Faecal incontinence
- Infertility- primary and secondary

Common and/or important conditions encountered in the female population:
- Menstrual disorders: amenorrhoea, oligomenorrhoea, dysmenorrhoea, inter-menstrual bleeding, menorrhagia, pre-menstrual syndrome
- Pregnancy-related: (including normal routine antenatal and postnatal care)
  - Common problems: hyperemesis, back pain, heartburn, heavy legs, varicose veins and haemorrhoids
  - Miscarriage
- Ectopic pregnancy
- Multiple pregnancy
- Anaemia
- Abnormal lies and placenta praevia
- Antepartum haemorrhage and abruption
- Gestational Diabetes
- Deep vein thrombosis, pulmonary embolism
- Hypertension, pre-eclampsia and eclampsia
- Poly- and oligohydramnios
- Premature labour and role of anti-D antibody
- Breastfeeding problems
- Puerperal fever

- Cervical pathology
- Fibroids
- Endometriosis
- Polycystic ovary syndrome
- Gynaecological malignancies
- Menopause
- Osteoporosis
- Sexual dysfunction including psychosexual conditions
- Mental Health issues more common in women: anxiety, depression, eating disorders, self-harm and their occurrence and relationship in different lifestages, e.g. puberty, post-natal, peri- and post-menopause.

**Investigations**
- Pregnancy testing
- Urine dipstick, MSU and laboratory urinalysis
- Blood tests including renal function and hormone profile
- Bacteriological and virological tests for high vaginal swabs
- Knowledge of secondary-care investigations including colposcopy and subfertility investigations

**Treatment**
- Management of common conditions in the primary care set up
- Appropriate treatment of STDs and liaising with the GU clinic (see module on Sexual Health)
- Contraception: types, contraindications, drug interactions, side-effects
- Safe prescribing in pregnancy: assessing benefit vs. risk (particularly for anticonvulsants, oral hypoglycaemics and insulin, antihypertensives, antibiotics, anticoagulants)
- Managing the menopause and perimenopause including different treatment modalities of HRT, their pros and cons
- Knowledge of specialist treatments and surgical procedures including: laparoscopy, D&C, Hysterectomy, pelvic floor repair, oophorectomy,
removal of ovarian cysts, sterilisation, remedies for urinary incontinence, enabling GP to advise, guide and refer patients as needed.

Emergencies
- Bleeding in pregnancy
- Suspected ectopic pregnancy
- Pulmonary embolism
- Pre-eclampsia and eclampsia
- Domestic violence

Prevention
Trainees should be confident in the delivery of the following:
- Education regarding lifestyle, sexual and mental health
- Pre-pregnancy issues: discontinuing contraception, folic acid, family and genetic history, lifestyle modification
- Pregnancy care: health promotion, diet, smoking and alcohol, past obstetric history, social and cultural issues
- Rubella testing
- Immunisation vs. HPV, Hepatitis B, Rubella, Varicella-zoster
- Screening: breast, cervical and ovarian cancer
- Osteoporosis: risk assessment, screening and management options

Psychomotor Skills

Demonstrating professional conduct, having gained informed patient consent, and ensuring patient comfort at all times, the trainee shall be able to:
- Perform a gentle and thorough pelvic examination, including a digital and speculum examination to:
  - assess the size, position and mobility of the uterus
  - recognise abnormality of the pelvic organs
  - remove foreign bodies from vagina
  - take high vaginal swabs
  - allow removal of IUDs
  - ensure that IUD is still in place
- Competently perform a cervical smear with sensitivity and care, avoiding unnecessary physical discomfort or psychological distress and ensuring that throughout the procedure the woman is made aware that she is in control of the process
- Perform a competent and sensitive breast examination
- Catheterisation, respecting patient dignity and avoiding unnecessary discomfort
- Change a ring pessary
Teaching and Learning resources

Work-based learning – *in primary care*

- Observation and practice of consultations with women; formulating differential diagnosis; interpreting laboratory results, prescribing for disease; health education and screening
- Performing general examinations in women to include those presenting with breast lumps and urinary problems,
- Well women clinics; carry out full pelvic examinations, take smear tests and high vaginal swabs, checking on and removing IUD’s, removal of vaginal foreign bodies, carry out breast examination
- Antenatal clinics
- Attachment with community midwife carrying out postnatal checks on new mothers and their babies.

Work-based learning - *in secondary care*

- Observation and practice of consultations with women; formulating differential diagnosis; interpreting laboratory results, prescribing for disease; health education and screening in the varied hospital attachments
- Observation and practice of consultations during the gynae attachments involving:
  - Gynae E&A with presentation of undifferentiated gynae problems
  - Gynae outpatients with patients referred by family doctors for specialist care
  - Gynae wards, delivering pre and post-op care to women
- Observation of multidisciplinary approach and teamwork e.g. at the Breast Unit
- Observations at Hospice movement and Oncology Dept. allowing better understanding of treatment and end of life care to women with cancer
- Observations at the Genito-Urinary clinic at Boffa Hospital, gaining a closer perspective on the reality of STDs in the female community and understanding how to communicate effectively, advise re healthy lifestyle, screen for and treat STDs
- Tutorials relating to women’s health and epidemiological and treatment variations for diseases common to both sexes.

*Other learning opportunities*

- Private study of GP textbooks, current guidelines, journals and internet resources
- Informal discussions with trainer and peers
- Conferences and courses dealing with women’s health
• Learning opportunities with other health care professionals e.g. seminars and lectures involving gynaecologists and obstetricians, general surgeons, midwives, nurses, psychiatrists, psychologists and pharmacists.
• Voluntary work projects at women’s shelters and women’s refugee centres
• Involvement in support groups for women, e.g. breast care support group.

**Formative Assessment**

• Analysis of video recorded consultations with female patients
• Mini-clinical examinations e.g. breast examinations; pelvic examination
• Directly observed procedures e.g. catheterization, carrying out Pap smear tests
• Analysis of Educational Portfolio
• Case-based discussions on consultations for women
• Patient satisfaction questionnaire
• Multisource feedback.

Reference:

- Falzon Camilleri A. *Breastfeeding: A formula for overcoming anxiety in mothers.* A collection of papers delivered at the MCFD CPD Meeting Winter 2006

Reference document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No10.1- *Women’s Health*

Further reading:

Internet resources:

- NICE (October 2006). Urinary incontinence - The management of urinary incontinence in women
- www.sign.ac.uk guidance issued by SIGN on investigation of postmenopausal bleeding, post natal depression, breast cancer and osteoporosis.
- www.rcog.org.uk relevant guidelines issued by the Royal College of Obstetricains and Gynaecologists
- www.nsc.nhs.uk guidelines issued by the National Screening Committee on screening for breast, cervical and ovarian cancer
- www.nice.org.uk clinical guidelines issued by NICE on contraception, fertility, antenatal care, post natal care, heavy menstrual bleeding and incontinence
Chapter 34.

Geriatric Health

Author: Dr Daniel Sammut MD MMCFD

Date: 14th March, 2009

Reference Document:

RCGP Curriculum Statement No. 9 – Care of Older Adults
Introduction

Rationale

In Malta, the segment of the population aged 60 years and over has been steadily increasing during the past fifty years, and now represents 18.8% of the Maltese population. Demographic statistics clearly indicate that the 60+ population is growing at a faster rate than the rest of the population, and this trend of population ageing will not only continue for a number of years to come but it will accelerate. In fact, it is projected that, by 2025, 27% of Malta’s population will be above the age of 60.\(^1\)

In 2005, life expectancy (LE) at age 65 in Malta was 19.4 years for women and 16.2 years for men. These values have increased by 1.7 years for women and 0.8 years for men over the 1995-2005 period: LE for both sexes between 1995 and 2001 was below the EU15 average and remained slightly below the EU25 in 2005. However, Maltese men and women may be less likely to report health problems than the EU25 as a whole. At age 65, women spent 58% (11.1 years) of remaining life without activity limitation (corresponding to Healthy Life Years), 25% (5.1 years) with moderate activity limitation and 17% (3.2 years) with severe activity limitation. Men of the same age spent 65% (10.5 years) of remaining life without activity limitation compared to 22% (3.5 years) with moderate activity limitation and 13% (2.2 years) with severe activity limitation. Although total years lived by men were less than those for women, the number of years lived in very good or good perceived health and the years lived without chronic morbidity were similar. However, the number of years lived without activity limitation was greater for women than men. Compared to men, women spent a larger proportion of their life in ill health and these years were more likely to be years with severe health problems.\(^2\)

Maltese health care priorities

Old people make great demands on both primary and secondary health care. They often suffer from chronic degenerative disease, and multiple complaints and co-morbidity are the norm. Most cancers increase in incidence with advancing age. The elderly consult their family doctor frequently, and they often need to be seen at home because of mobility problems. In 2006, the demand for hospital in-patient care in Malta increased with increasing age from the age of 40 years till it peaked at the 85-89 year age group.\(^3\) Elective surgery, such as hip and knee replacement, mainly benefits older people and has been increasing steadily in recent decades.
Other factors that complicate the delivery of health care to the elderly may include illiteracy, difficulties in communicating, polypharmacy, increasing dependency, and psychiatric or social problems. GPs have an important role to play in the care of elderly people within the community where they feel safe and comfortable. The trusting and friendly relationship that develops over the years between the patient and his/her family doctor enables the latter to come to understand the older person in a holistic way. In this manner, preventive measures can be encouraged, chronic disease can be managed in partnership with the patient (and possibly his/her carers), and serious new problems can be identified early, thus allowing prompt intervention. On the part of the GP, good communication skills, continuity of care, and meticulous record-keeping are essential pre-requisites for this to occur.

Geriatric rehabilitation services have now been available on the island since 1991 at Zammit Clapp Hospital, and recently also in Karen Grech Hospital. These hospitals provide excellent inpatient multidisciplinary care to encourage gradual convalescence and rehabilitation of the elderly person and to help reintegration into society. They also provide short-stay respite care. Home visits by occupational therapists and community nurses allow assessment of the home environment. In addition, day hospital facilities are available for multidisciplinary assessment and rehabilitation of the outpatient (e.g. the memory clinic). The GP should be familiar with these services in order to be able to refer patients who might benefit.

Many elderly people are dependent and vulnerable. Naturally, older people should enjoy the same rights as younger people. Unfortunately, their rights of dignity, autonomy, confidentiality and personal property are sometimes abused by society or even by family members. Firstly, the family doctor should take care to respect older people him/herself, and secondly, be on the alert to identify ageism and elder abuse, ensuring early and appropriate intervention to protect the patient.

Nowadays, the older adults have many opportunities to remain active in the community. The government provides more than 30 types of service aimed at improving their quality of life while keeping them in their own homes, community and environment. These include day centres in various localities, domiciliary nursing, handyman service, home care help, incontinence service, meals on wheels, telecare, etc... The last two decades have seen the opening of a number of high quality residential homes for the elderly, managed by the state, by the private sector, or jointly. The University of the Third Age encourages lifelong learning and active participation of the elderly in society, culture and economy. Voluntary organizations such as Caritas Malta also give a valuable contribution.

The sections on ‘Knowledge base’ and ‘Relevant Guidelines’ have been omitted from this module because they are included in the pertinent sections on clinical
topics (e.g. falls are considered in Chapter 40 – Rheumatology and Musculoskeletal Disease).

Learning Outcomes

The following learning objectives relate specifically to the family doctor’s role in the care of older patients. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any elderly patient, adopting a patient-centred approach.

2. Describe the effects of normal ageing on the physical and psychological health of the individual.

3. Recognise the importance of social factors in geriatric health. Harness the support of family, carers, and friends in the care of older adults.

4. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic or terminal illness.

5. Explore the older patient’s ideas, concerns and expectations, and how they fit in the social and clinical context.

6. Recognise that many elderly patients have problems of communication or literacy, and compensate for these.


8. Recognise that older adults may be less flexible and adaptable in their ideas or behaviour.

9. Realise that elderly patients make greater demands for home visits because of mobility problems. Cater for these requests.

10. Perform a complete examination of the elderly patient, including mental state.

11. Explain the epidemiology of disease in the local geriatric community to assist diagnosis. Outline the natural history of disease in the elderly.
12. Realise that co-morbidity is frequent in the aged. Develop skills to manage the concurrent health problems experienced by an older patient through identification, exploration, negotiation, acceptance and prioritization.

13. Apply sound evidence-based criteria to assess severity of illness in the elderly, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

14. Describe the complications that can arise when the elderly are transferred from one environment to another and how these can be prevented and managed.

15. Intervene urgently when older patients present with an emergency.

16. Demonstrate an evidence-based approach towards investigation and management of health problems in the aged.

17. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from disease (and/or their carers), particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable.

18. Adapt communication to the patient’s needs, and dedicate appropriate time to explain to the patient and his/her carers, repeating as necessary.

19. Provide continuity of care and keep good medical records to enable the management of chronic disease.

20. Demonstrate a consistent, evidence-based approach to drug prescribing for the elderly. Appreciate that polypharmacy is frequent, and that the potential for drug adverse events and drug-drug interactions is increased. Explain why certain drugs may be contra-indicated in the older adult, and how some drugs may need modification of dosage regimens.

21. Recognise that compliance with treatment is often suboptimal, and that the elderly frequently make mistakes in taking their (often multiple) medications.

22. Be aware of issues of health care rationing and cost-containment (even for the self-paying patient).

23. Coordinate care with other health care professionals, such as geriatrician, other medical specialists, practice nurse, community nurse, physiotherapist, speech and language pathologist, occupational therapist,
podologist, social worker and pharmacist to enable chronic disease management and rehabilitation.

24. List the services provided by the government and voluntary organisations for the care and support of the elderly, and explain how to access them.

25. Be self-aware and clarify personal values regarding ageing and the elderly. Respect the rights of elderly patients, without being patronizing. Avoid letting personal opinion influence quality of care.

26. Appreciate that many elderly people are dependent and vulnerable. Be vigilant to identify elder abuse, and report it to the appropriate authorities. Be prepared to act as an advocate for the patient.

27. Understand the legal issues that may arise, e.g. confidentiality, Mental Health Act, power of attorney, court of protection, guardianship, living wills and death certification.

28. Give examples of moral, ethical and emotional issues at the end of life as well as after death.

Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as history-taking; tailored communication; full examination of the elderly patient; formulating a differential diagnosis; ordering and interpreting laboratory and radiology investigations; negotiating a comprehensive management plan; intervening rapidly and appropriately in emergencies; involving the family and/or carers when necessary; prescribing for the elderly; referring to other health professionals, social services and voluntary agencies as required; providing continuity of care and keeping good medical records to enable chronic disease management; making clinic accessible and performing home visits when necessary

- Tutorials on principles of geriatric care
- Random case analysis of consultations for the elderly
- Analysis of video recorded consultations for the elderly
- Using Educational Portfolio to record learning points and reflections.
Work-based learning – *in secondary care*

- Observation and practice of skills such as history-taking; tailored communication; full examination of the elderly patient; formulating a differential diagnosis; ordering and interpreting laboratory and radiology investigations; negotiating a comprehensive management plan; intervening rapidly and appropriately in emergencies; involving the family and/or carers when necessary; comprehensive multidisciplinary approach; prescribing for the elderly; keeping good medical records to enable chronic disease management
- Tutorials on principles of geriatric care
- Using Educational Portfolio to record learning points and reflections.

*Other learning opportunities*

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about geriatric care
- Educational visits to residential homes for the elderly
- Conferences and courses (both local and international) dealing with geriatric care
- Informal discussions with trainer and peers.
- Learning opportunities with other health care professionals e.g. seminars with geriatricians, other medical specialists, nurses, pharmacists, physiotherapists, occupational therapists, speech and language pathologists, social workers, etc...
- Voluntary participation in community projects involving the elderly; these may be self-initiated or by joining forces with other community groups and initiatives.

**Formative Assessment**

- Analysis of video recorded consultations for the elderly
- Mini-clinical examination e.g. mini-mental state examination; interpreting bone densitometry result
- Analysis of Educational Portfolio.
- Case-Based Discussion on consultations for the elderly
- Patient Satisfaction Questionnaire
- Multi-source feedback.
References:

1. Troisi J. Report on national follow-up to the UNECE Regional Implementation Strategy of the Madrid international Plan on Ageing

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 9 – Care of Older Adults

Further Reading:


**Internet Resources:**

- Age Concern: [www.ace.org.uk/](http://www.ace.org.uk/)
- Alzheimer’s Disease Society: [www.alzheimers.org.uk](http://www.alzheimers.org.uk)
- British Geriatrics Society: [www.bgs.org.uk](http://www.bgs.org.uk)
- Caritas Malta: [www.caritasmalta.org/](http://www.caritasmalta.org/)
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: [http://cks.library.nhs.uk/home](http://cks.library.nhs.uk/home)
Chapter 35.

Cardiovascular Problems

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Date: 6th February, 2009

Reference Document:

RCGP Curriculum Statement No. 15.1 – Cardiovascular Problems
Introduction

Rationale

For the purposes of this clinical module, cardiovascular problems include all manifestations of atherosclerosis (coronary heart disease, cerebrovascular disease, aneurysms, peripheral arterial disease), hypertension, other heart disease (congenital, valvular, cardiomyopathy, arrhythmias), heart failure, cardiac arrest, thrombo-embolism and other venous disease (e.g. chronic venous insufficiency). Diseases of the circulatory system account for 43% of all deaths in Malta.¹

Even though the European Union is experiencing declining rates of mortality from cardiovascular disease, an increasing number of men and women are now living with disease. This paradox relates to increasing longevity and improved survival of people suffering from cardiovascular disease.

Like the rest of Europe, ischaemic heart disease is locally the leading cause of death, accounting for 23% of all deaths. It is also the condition that causes the most potential years of life lost below age 65 years.³ Chest pain is the commonest hospital discharge diagnosis after ‘normal vaginal delivery’. The male to female ratio is 1.5:1. On looking at the age group distribution of these admissions one can see that the highest number of admissions come from the 45-54 age group in males whilst in females they are from the 65-74 age group.² Family doctors should be able diagnose acute coronary syndromes swiftly, taking care not to under-diagnose these conditions in females. An electrocardiography machine available at the clinic, and skills to take an ECG and interpret it correctly, are assets for the GP. He/she should also have periodic basic and advanced life support training with re-certification. Rapid and correct intervention can save lives.

Stroke is the second most common cause of mortality in Malta, accounting for 10.7% of all deaths. Females outnumber males in the number of deaths due to cerebrovascular disease, unlike in deaths due to ischaemic heart disease.¹ Stroke is also the most common cause of long-term morbidity.

Up to 23% of ischemic strokes are preceded by a transient ischaemic attack (TIA) and the initial risk is as high as 5% in the first 48 hours and 30% within the first month without treatment. A recent survey in the UK showed that most patients who experience a neurological deficit would wait for a recurrence before seeking medical attention (the majority from their GP). Moreover, most GPs would prescribe anti-platelet therapy, but 22 to 40% would not refer first-time TIA patients, depending upon the presenting symptom. Clinical guidelines for stroke recommend that patients with TIA should be given anti-platelet therapy.
immediately and referred to neurovascular care as soon as possible within seven days of the incident.³

Atrial fibrillation (AF) is the most common clinically significant cardiac arrhythmia. The prevalence of atrial fibrillation increases with older age ranging from 0.1% among persons younger than 55 years to 9.0% among patients aged 80 years or older. It is also a potent risk factor for ischemic stroke, increasing the risk of stroke 5-fold and accounting for approximately 15% of all strokes. Symptomatic atrial fibrillation may also reduce quality of life, functional status, and cardiac performance. It is associated with higher medical costs as well as an increased risk of death.⁴ The GP should be able to diagnose AF with confidence using the pulse and an ECG, and then refer to secondary care for further investigation and treatment.

Chronic heart failure is known to be a major public health problem in industrialized countries with ageing populations. Its prognosis has been equated with that of the more common malignancies. The management of heart failure requires frequent, prolonged and costly admissions to hospital. Despite this, studies have shown that heart failure is generally not managed optimally. All patients with heart failure should have an echocardiogram, at least once. A local audit showed that only 28% of patients with heart failure had had an echocardiogram. All patients with chronic heart failure should be on an ACE inhibitor or an angiotensin receptor antagonist, unless there are contraindications to these. Beta-blockers (e.g. carvedilol) and spironolactone have been shown to increase life expectancy in moderate to severe (NYHA III – IV) heart failure. Lifestyle modification such as exercise training and rehabilitation, and advice on smoking and alcohol consumption are very important. Vaccination against influenza and pneumococcal disease also decrease mortality.⁵ It is clear that GPs can do much more for their patients with heart failure than simply giving diuretics.

Pulmonary embolism is a condition that can be difficult to diagnose and manage, and still carries a high mortality. Consequently, decision support algorithms, risk stratification scores and guidelines have been developed over the last 15 years. These have incorporated the role of tests such as D-dimer to help rule out thrombo-embolic disease in low-risk patients, and the increasing role of computed tomography pulmonary angiography as well as giving clear guidance about treatment and prophylaxis. Pulmonary embolism has recently attracted media attention with increasing public awareness and concerns, particularly in relation to air travel.⁶ Family doctors should have a low threshold for the suspicion of thrombo-embolic disease in patients who have risk factors (e.g. the oral contraceptive pill, pregnancy, immobilization or recent surgery (particularly pelvic or lower limb)). The local availability of fractionated heparinoids for subcutaneous injection and oral thrombin inhibitors should help the GP in the prophylaxis of thrombo-embolism in his patients at risk.
Abdominal aortic aneurysm is a potentially lethal condition, much more common in older men, and, sadly, often first recognised only after rupture and death. Some 75% of patients die before arriving at hospital, and of the survivors, only half make it to the operating theatre. The operative mortality for ruptured aneurysm remains about 40% at 30 days, compared with a mortality of 5-6% for elective surgery. It is recommended that men over 65 years who have ever smoked should be screened with ultrasonography.\(^7\)

Peripheral arterial disease (PAD) is a marker for systemic arterial damage. The main danger to the patient with intermittent claudication is not that they will require an amputation, but that they have a greatly increased risk of a fatal or non-fatal cardiovascular event. Many patients do not present with a classical history, or present with multiple pathology, which is often far more relevant to the patient’s quality of life than the intermittent claudication. The presence of good foot pulses does not exclude PAD and patients with a classic history of claudication will require further investigation. Ankle brachial pressure index (ABPI) should be measured in all patients suspected of having peripheral arterial disease, by a trained practitioner. When the diagnosis of peripheral arterial disease is made the patient should have a full cardiovascular risk factor assessment carried out. Patients with suspected peripheral arterial disease should be referred to secondary care if the primary care team is not confident in making the diagnosis, or is concerned that the symptoms may have an unusual cause, or the patient has symptoms which limit lifestyle and objective clinical signs of arterial disease. Antiplatelet therapy is recommended for patients with symptomatic peripheral arterial disease (Grade A recommendation). Statins should be given for risk factor management in patients with intermittent claudication and total cholesterol level > 3.5 mmol/l (Grade A).\(^8\)

Atrial septal defects account for 10% of all congenital heart disease. Traditionally, ASDs were surgically closed using cardiopulmonary bypass via a right atriotomy. A wide variety of devices for transcatheter closure of ASDs have been developed in the past two decades and these allow for over 80% of ASDs to be closed without open heart surgery. Patent foramen ovale and ASD closure has been performed in Malta since 1998, comprising a local team, a visiting cardiologist, and an anaesthetist, with surgical backup.\(^9\)

Maltese health care priorities

Malta boasts of excellent secondary care cardiac services. These include emergency and routine percutaneous transluminal angiography, angioplasty and stenting; insertion of state-of-the-art pacemakers and cardioverter defibrillators; electrophysiological studies with radio-frequency ablation; percutaneous valvuloplasty, and coronary artery bypass surgery. However, GPs endeavour to prevent their patients from needing these invasive and expensive procedures.
The traditional risk factors for atherosclerosis include age, tobacco smoking, alcohol excess, obesity, lack of exercise, excessive stress, hypertension, hypercholesterolaemia and diabetes mellitus. Unfortunately, all these risk factors are highly prevalent in the Maltese population:

- The World Health Organisation estimates that 66% of females and 71.4% of Maltese males have a BMI>25kg/m\(^2\) while 34.8% of females and 25.9% of males have a BMI>30kg/m\(^2\).\(^{10}\)

- Malta has the highest prevalence (from 34 countries) of overweight (pre-obese and obese) and obese youth at 25.4% and 7.9% respectively.\(^{11}\) A large population-based study in Copenhagen over 46 years proved that a strong and linear relationship exists between body mass index in childhood and coronary heart disease in adulthood.\(^{12}\)

- Less than 30% of Maltese people indulge in vigorous or moderate physical activity. 30% do not even walk for at least 10 minutes at a time!\(^{14}\)

- The WHO estimates that 20.4% of Maltese females and 29.2% of males smoke tobacco.\(^{10}\) 79% of smokers or former smokers responded that factors that would/have helped them to quit were: being given advice from a doctor or nurse or knowing that their health was being damaged.\(^{13}\)

- Diabetes mellitus, which is estimated to currently affect about 11.6% of the population, is projected to increase in prevalence due to the obesity epidemic.\(^{14}\)

- The National Health Interview Survey found that 41% of Maltese had checked their blood pressure in the last 3 months. 17% had high blood pressure diagnosed by a physician, and 75% of these were having treatment.\(^{13}\) The percentage of undiagnosed cases is obviously greater.

- 38% of Maltese had had their cholesterol checked in the last year. 9% answered that they had high cholesterol diagnosed by a physician and 45% of these were on treatment for it.\(^{13}\)

Cardiovascular disease is eminently preventable, and the above figures demonstrate that there is a large opportunity for primary prevention. The family doctor is well-placed to educate patients, to promote a healthy lifestyle, and to encourage therapeutic lifestyle changes when necessary. Therapeutic lifestyle changes are notoriously difficult for anyone to implement, but through multiple contacts with the patient, GPs can provide the motivation and support for this to occur.

The doctor who is attuned to the community’s health beliefs and expectations, has a non-judgmental approach, and who is ready to negotiate a compromise with the patient, will have more success in the management of risk factors.
Through continuity of care and good medical records, GPs can follow-up their patient’s progress and intervene as necessary over the years.

The key to reducing cardiovascular disease is a holistic cardiovascular risk assessment and management approach. GPs should use a validated risk assessment tool, such as that produced by the Joint British Societies or the Q-risk calculator. The latest international guidelines advocate the early and assiduous pharmacological treatment of hypertension, hypercholesterolaemia and diabetes mellitus in those who have >20% risk of acquiring ischaemic heart disease in the next 10 years or who already have established disease. These patients should also receive aspirin if BP is controlled to less than 150/90 mmHg and they have no contra-indications.

Hypertension (HT) is a major modifiable risk factor for cardiovascular disease. Pitfalls in the diagnosis of HT include defective instruments, too small a cuff, poor technique, and white-coat HT. Although office BP should be used as reference, ambulatory BP may improve prediction of cardiovascular risk in patients who have widely variable readings. Normal values for office BP are higher than for both home and ambulatory BP readings. Self-measurement of BP at home is of clinical value and its prognostic significance is now demonstrated. These measurements should be encouraged in order to improve patients’ adherence to treatment regimens, but discouraged in anxious patients or those who tend to alter their own treatment.

95% of HT is essential, but GPs must exclude secondary HT and its causes. To do this, and to assess end-organ damage, full investigation including ECG, blood tests and urine analysis are indicated. Salt intake reduction and other therapeutic lifestyle changes are important. Consensus from published guidelines is that persistent BP over 160/100mmHg should be treated pharmacologically, and this threshold goes down to >140/90 in patients at higher risk. Beta blockers are no longer considered as an appropriate choice for initial treatment of HT unless there are compelling reasons to use them (e.g. coronary artery disease). Many patients will require more than one drug to achieve BP control, and indeed many drug combinations are now available on the market. Managing hypertension is a challenge for both doctor and patient. Full involvement of patients, including education, regular follow-up and enquiring about adverse effects, helps to improve adherence to medication and long-term outcomes.

Hyperlipidaemia is another important modifiable risk factor. Therapeutic lifestyle changes should always be strongly encouraged. People whose cardiovascular risk is low should have total cholesterol of ≤5mmol/l and Low-Density Lipoprotein (LDL) ≤3 mmol/l. In individuals who have diabetes mellitus or established cardiovascular disease the target total cholesterol is ≤4mmol/l and LDL ≤2 mmol/l. The latter category will require therapy with statins and possibly fibrates.
The metabolic syndrome or insulin-resistance syndrome has received enormous attention in recent years. This ‘clustering’ of metabolic abnormalities that occur in the same individual appear to confer a substantial additional cardiovascular risk over and above the sum of the risk associated with each abnormality. The International Diabetes Federation defines it as abdominal obesity plus any two of:

- raised triglycerides,
- reduced HDL,
- raised BP (or previous HT), or
- raised fasting blood glucose (or previous diabetes mellitus).

Patients with metabolic syndrome should have aggressive management of these risk factors that should include therapeutic lifestyle modifications, statins, fibrates, anti-hypertensives and oral hypoglycaemics agents.\(^{18}\)

The family doctor should keep up-to-date with the latest guidelines in order to provide evidence-based care to his/her patients. The pharmaceutical industry invests huge amounts of money into the development and marketing of new drugs for cardiovascular risk factors and GPs should keep themselves informed about these developments. At the same time, they should keep in mind the needs for cost-effective prescribing and rationing of government health care resources.

In males, resting tachycardia\(^{19}\) and high haematocrit\(^{20}\) are potent and independent cardiovascular risk factors, predicting sudden death, myocardial infarction and congestive heart failure.

There is now a large body of evidence that a chronic inflammatory state can enhance the deleterious effects of some traditional risk factors for cardiovascular disease. C-reactive protein is thought to be a link between local and systemic inflammatory processes. It is raised in patients with unstable angina, involved in the initiation and progression of atherosclerotic lesions, and independently predicts the risk of future myocardial infarction, stroke and death. Treatment of cardiovascular disease with statins or angiotensin-converting enzyme inhibitors has been shown to lower CRP levels. Elevated levels of homocysteine have been associated with coronary artery disease in the general population. Homocysteine levels can be reduced in most patients by the administration of co-factors/co-substrates of homocysteine, e.g. folic acid and vitamin B6.\(^{21}\) Family doctors should be aware of these ‘new’ risk factors.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the prevention, diagnosis and management of cardiovascular disease. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with a cardiovascular problem.

2. Appreciate the importance of the social and psychological impact of cardiovascular problems on the patient, his/her family, friends, dependants and employers.

3. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic illness.

4. Appreciate the high prevalence of cardiovascular risk factors in the Maltese community, and the projected worsening of the situation due to an ageing and increasingly obese population. Recognise that cardiovascular disease is largely preventable.

5. Ask all patients about smoking status, alcohol consumption, dietary habits and exercise habits. Identify health beliefs of the patient and either challenge or reinforce these as appropriate. Ensure that personal opinion does not prejudice clinical management. Offer non-judgemental advice and help the patient to change his/her lifestyle. When indicated, offer medication or referral to other health professionals or group sessions (such as those held by the Department for Health Promotion and Disease Prevention for smoking cessation, weight loss and exercise).

6. Perform a complete examination of the cardiovascular system.

7. Regularly screen for hypertension in all adults.

8. Periodically screen for hyperlipidaemia in males >35 years and females >45 years, or at a younger age in patients with risk factors.

9. Demonstrate knowledge of the relative prevalence of cardiovascular problems in the local community to assist diagnosis.
10. Recognize particular groups of patients at higher risk of cardiovascular disease e.g. those with non-modifiable and modifiable risk factors.

11. Explain the role of electrocardiography in the diagnosis of cardiovascular disease. Demonstrate how to perform an ECG and interpret the result.

12. Apply sound evidence-based criteria to assess severity of cardiovascular illness, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

13. Intervene urgently when patients present with a cardiovascular emergency, e.g. acute coronary syndrome, serious arrhythmia, cardiac arrest, etc. Acquire periodic BLS and ALS training and re-certification.

14. Recognize that chest pain may be due to various non-cardiac causes (e.g. gastric disease) and determine optimum management for these.

15. Demonstrate an evidence-based approach towards investigation and management of cardiovascular risk factors and/or established disease.

16. Use validated tools to holistically assess cardiovascular risk.

17. Communicate the patient's risk of cardiovascular problems clearly and effectively in a non-biased manner. Advise patients appropriately regarding lifestyle interventions according to their cardiovascular risk and level of disability.

18. Prioritise interventions for multiple risk factors and symptoms of cardiovascular problems according to their severity and prognostic risk.

19. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from cardiovascular disease. Empower patients to self-manage their conditions as far as practicable.

20. Assess the impact of disease on the patient’s quality of life and fitness to work, making appropriate recommendations.

21. Recognize that ischaemic heart disease and stroke are the leading causes of death in both men and women. Recognise that suboptimal care, lack of implementation of therapeutic lifestyle changes and poor adherence to medication contribute to unnecessary deaths from these conditions.

22. Show wide knowledge on the pharmacological treatment options for cardiovascular risk factors and disease. Know the indications, contraindications, cautions, interactions, dosage regimens and common adverse effects of frequently used drugs.
23. Recognise the importance of cost-effective treatment and rationing of health care resources.

24. Coordinate care with other health care professionals, such as cardiologists, secondary care physicians, practice nurse, cardiac nurse, physiotherapist, nutritionist and pharmacist to enable optimal cardiovascular disease management and cardiac rehabilitation.

25. Describe the landmark studies that have influenced management of cardiovascular problems (e.g. Framingham Study).

26. Advise patients appropriately regarding driving according to their cardiovascular risk.

Knowledge base

Symptoms:
- Chest pain (cardiac causes, e.g. ischaemic heart disease, pericarditis and aortic dissection, versus non-cardiac causes, e.g. chest wall/musculoskeletal, psychogenic, respiratory, gastrointestinal)
- Breathlessness (heart failure, respiratory problems, thrombo-embolism, anaemia, endocrine, obesity, malignancy)
- Ankle swelling (heart failure, venous thrombo-embolism, venous stasis, varicose veins, lymphoedema, anaemia, obesity, malignancy, hypoproteinaemia)
- Symptoms or signs thought to be due to peripheral vascular disease (arterial and venous)
- Palpitations and silent arrhythmias
- Signs and symptoms of cerebrovascular disease
- Collapse.

Common and/or important conditions:
- Coronary heart disease (angina, acute coronary syndromes, cardiac arrest)
- Heart failure (all types)
- Arrhythmias (ectopic beats, atrial fibrillation and flutter, narrow and broad complex tachycardias, bradyarrhythmias)
- Other heart disease (valve disease, cardiomyopathy, congenital, pericardial)
- Aneurysms
- Peripheral vascular disease (arterial and venous)
- Cerebrovascular disease (stroke and TIA)
- Thrombo-embolic disease.
Investigations:
- Blood pressure measurement
- Electrocardiogram (12-lead ECG)
- 24-hour ambulatory blood pressure measurement
- Venous dopplers and ankle brachial pressure index (ABPI) measurement
- Knowledge of secondary care investigations and treatment including echocardiography, 24-hour ECG monitoring, angiography, venography.

Treatment:
- Treatment of people at risk from cardiovascular problems including specific management of raised blood pressure and lipids
- Drugs commonly used for cardiovascular disease (e.g. anti-hypertensive, diuretic, anti-platelet, anti-coagulant, anti-arrhythmic, anti-anginal) and their indications, contraindications, cautions, interactions, dosage regimes and common adverse effects.
- Knowledge of secondary care treatment including PCI and stenting, valvuloplasty, pacemaker insertion, radiofrequency ablation, coronary artery bypass grafting, varicose vein surgery.
- Chronic disease management including specific disease management, systems of care, multidisciplinary teamwork for people with established cardiovascular problems, rehabilitation and also palliative care for those with end stage cardiac failure
- Communication with patients and their families and interprofessional communication between primary and secondary care.

Emergency care:
- Acute treatment of people presenting with serious cardiovascular problems including acute coronary syndromes, cardiac arrest, arrhythmia, stroke, cardiac tamponade, dissecting aortic aneurysm, pulmonary embolism.

Prevention:
- Blood pressure
- Lipids
- Tobacco smoking
- Other modifiable risk factors (including alcohol, exercise, obesity and diet)
- Co-morbidities, especially diabetes mellitus
- Combining risk factors – risk calculation and communicating risk
- Vaccination against influenza and pneumococcus in patients with chronic cardiovascular disease.
Psychomotor skills

- Clinical skills including cardiovascular examination, blood pressure measurement, measurement of BMI and waist circumference
- Calculation of cardiovascular risk
- Performing an ECG and basic interpretation
- BLS and ALS for children and adults.

Relevant Guidelines:

Prevention of cardiovascular disease:

- *Guidance on the prevention, identification, assessment and management of obesity and overweight in adults and children* (NICE)
- *Brief interventions and referral for smoking cessation in primary care and other settings* (NICE)
- *Increasing physical activity* (NICE, WONCA)
- *Estimation of ten-year risk of fatal cardiovascular disease in Europe: the SCORE project* (ESC)
- *Management of hypertension in adults in primary care* (ESC; NICE)
- *B-adrenergic receptor blockers* (ESC)
- *Angiotensin converting enzyme inhibitors* (ESC)
- *Antiplatelet agents* (ESC)
- *Guidelines on pre-diabetes, diabetes, and cardiovascular disease* (ESC-EASD)
- *Definition of the Metabolic syndrome* (IDF, NCEP)
Diagnosis and management of established cardiovascular disease:

- Initial chest pain assessment
  (Cardiology Dept & Dept of Medicine, St Luke’s Hospital 2003)
- Task force on the management of chest pain (ESC)
- Acute coronary syndromes (SIGN)
- Management of Acute Myocardial Infarction
  (ESC; Dept of Medicine, GDG, SLH Nov 2004)
- MI: secondary prevention (NICE)
- Management of stable angina (ESC; SIGN)
- Acute and chronic heart failure (ESC; NICE)
- Cardiac arrhythmias in coronary heart disease (SIGN)
- Management of patients with ventricular arrhythmias and the prevention of sudden cardiac death (ACC/AHA/ESC)
- Atrial fibrillation (ESC; NICE)
- Diagnosis and management of pericardial disease (ESC)
- Management of valvular heart disease (ESC)
- Prevention, diagnosis and management of endocarditis (ESC)
- Diagnosis and initial management of acute stroke and transient ischaemic attack (NICE)
- Stroke: Management of Stroke
  (Intercollegiate Stroke Working Party UK)
- National clinical guidelines for stroke (RCP)
- Diagnosis and management of syncope (ESC)
- Suspected lower limb DVT Assessment Guideline
  (St Luke’s Hospital GDG 2006)
- Diagnosis and management of peripheral arterial disease (SIGN)
- Diagnosis and Management of acute pulmonary embolism (ESC)
- Diagnosis and management of aortic dissection (ESC)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a full history; performing full examination of the cardiovascular system; making a holistic cardiovascular risk assessment; promoting healthy lifestyle changes and supporting the patient; formulating a differential diagnosis; taking and interpreting an ECG; interpreting laboratory and plain chest X-rays; negotiating a management plan with the patient; intervening promptly in an emergency; prescribing for cardiovascular disease; referring to secondary care when indicated; organising follow-up.

- Tutorials on principles of cardiovascular disease epidemiology; prevention; clinical presentation; differential diagnosis; investigation; and management.

- Random case analysis of consultations for a cardiovascular condition or its prevention.

- Analysis of video recorded consultations for a cardiovascular condition or its prevention.

- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as taking a full history; performing full examination of the cardiovascular system; making a holistic cardiovascular risk assessment; promoting healthy lifestyle changes and supporting the patient; formulating a differential diagnosis; taking and interpreting an ECG; interpreting laboratory and plain chest X-rays; observation of specialised investigation such as echocardiography, angiography, CT scanning; negotiating a management plan with the patient; observation of specialised treatment e.g. PCI; intervening promptly in an emergency; prescribing for cardiovascular disease; rehabilitation; secondary prevention; organising follow-up.

- Observation of multidisciplinary approach and teamwork.

- Tutorials on principles of cardiovascular disease epidemiology; prevention; clinical presentation; differential diagnosis; investigation; and management.

- Using Educational Portfolio to record learning points and reflections.
Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources.
- Interactive half-day release programme sessions about cardiovascular conditions and their prevention.
- BLS and ALS for children and adults.
- Conferences and courses (both local and international) dealing with cardiovascular conditions and their prevention.
- Informal discussions with trainer and peers.
- Learning opportunities with other health care professionals e.g. seminars with cardiologists; physicians, nurses, pharmacists, physiotherapists, dietitians, etc…

Formative Assessment

- Analysis of video recorded consultations for established cardiovascular disease or its prevention.
- Mini-clinical examination e.g. taking BP; heart sounds; peripheral pulses.
- Directly observed procedures e.g. performing and interpreting an ECG.
- Analysis of Educational Portfolio.
- Case-Based Discussion on consultations for established cardiovascular disease or its prevention.

References:

8. Scottish Intercollegiate Guidelines Network. Guideline 89: Diagnosis and Management of Peripheral Arterial Disease. Available at: www.sign.ac.uk/pdf/sign89.pdf (last accessed 03.02.09)
10. WHO Global Infobase: http://www.who.int/infobase (last accessed 01.0.09)
Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 15.1 – Cardiovascular Problems

Further Reading:


Internet resources:

- European Society of Cardiology: www.escardio.org
- British Cardiac Society: www.bcs.com/
- National Electronic Library: www.nelh.nhs.uk/
- Primary Care Cardiovascular Society: www.pccs.org.uk/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
- Clinical Practice Guidelines: www.clinicalguidelines.org/cardiovascularmedicine.htm
Chapter 36.

Respiratory Problems

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Date: 15th September, 2008

Reference Document:
RCGP Curriculum Statement No. 15.8 – Respiratory Problems
Introduction

Rationale

Respiratory problems are a very common in both primary and secondary health care. When considering the frequency of patients’ presenting symptoms encountered in Maltese general practice, cough is the most common, sneezing/nasal congestion comes second, whereas throat complaint comes fourth.\textsuperscript{1} Likewise, when considering the frequency of diagnoses, acute upper respiratory tract infection (cause unspecified) is by far the most common diagnosis, while acute bronchitis/bronchiolitis, acute tonsillitis, cough, influenza, asthma, allergic rhinitis and laryngitis/tracheitis all place with the fifteen most diagnosed conditions.\textsuperscript{1} These are similar to European frequencies.\textsuperscript{2}

These figures demonstrate that there is a huge burden of respiratory disease in the community, and most of it is managed in primary care. The family doctor must have the necessary knowledge and skills to diagnose and manage these conditions that may be acute or chronic and may vary from the banal common cold to life-threatening asthma.

The majority of respiratory infections have a viral aetiology, and treatment is mainly symptomatic and supportive. There is little evidence to indicate benefit from the use of antimicrobials in upper respiratory tract infections (URTIs). Moreover, diagnostic tests are seldom used by GPs to diagnose the aetiological organism. The use of antimicrobials is not warranted for the majority of respiratory infections seen in general practice, and the family doctor should use these drugs responsibly to avoid aggravating the serious problem of resistant micro-organisms. The GP should be well versed in the indications, contraindications, presentations and dosage regimens of these drugs, and follow local and international guidelines for empirical treatment.

Globally, the prevalence of asthma and allergies has increased over the last few decades. However, the ISAAC study, which focused on children aged 6-7yrs and 13-14yrs, showed wide variations in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis and eczema. In general, this questionnaire-based study found the highest asthma prevalence in English-speaking developed countries (Australia, Ireland, New Zealand, the United Kingdom and the United States). Fifteen percent of children in Malta reported symptoms of asthma. When 56 different countries where compared, the prevalence of allergic rhinoconjunctivitis symptoms was most frequent in Maltese children (21%). Differences between countries may be due to factors such as lifestyle, dietary habits, socioeconomic differences and environmental or climate factors. Additionally, awareness of the disease can affect its prevalence and severity in a population.\textsuperscript{3}
Chronic Obstructive Pulmonary Disease (COPD) is a leading cause of morbidity and mortality worldwide and results in an economic and social burden that is both substantial and increasing. COPD prevalence, morbidity, and mortality vary across countries and across different groups within countries but, in general, are directly related to the prevalence of tobacco smoking, although in many countries, air pollution resulting from the burning of wood and other biomass fuels has also been identified as a COPD risk factor.

The prevalence and burden of COPD are projected to increase in the coming decades due to continued exposure to COPD risk factors and the changing age structure of the world’s population. COPD is a costly disease with both direct costs (value of health care resources devoted to diagnosis and medical management) and indirect costs (monetary consequences of disability, missed work, premature mortality, and caregiver or family costs resulting from the illness).

On a global scale, tuberculosis is a still a major cause of morbidity and mortality. The incidence of pulmonary and extra-pulmonary TB in Malta has been rising in recent years, mainly in irregular immigrants coming from Africa.

**Maltese health care priorities**

Maltese patients often initiate antimicrobial drugs by themselves, or try to pressurize their GP to prescribe these medicines for them, even though their infection would clearly have a viral aetiology. In these circumstances, the doctor is called to educate the patient on the proper use of antibiotics, the potential harm of misuse and the unnecessary costs involved. A strong doctor-patient relationship enables the patient to trust his/her doctor on this matter.

Influenza has recently been in the limelight because of the major (and ongoing) threat of pandemic influenza. Even seasonal influenza causes significant morbidity and mortality, particularly in the people with chronic illness and the elderly. The Infectious Disease Prevention and Control Unit carries out influenza surveillance every winter with the collaboration of GPs. The family doctor should be aware of local guidelines and be proactive in the immunization of vulnerable patients against seasonal influenza. Furthermore, the GP should be well informed about, and follow local protocols (issued by the Infectious Disease Prevention and Control Unit) in the event of avian or pandemic influenza reaching our shores. Streptococcus pneumoniae is another pathogen of great importance in respiratory infections, and the 23-valent vaccine that is available locally on the private market is probably underused.

Asthma still kills about one person per 100,000 per year in these islands, even though there is effective pharmacological therapy with diverse modes of drug delivery that is supplied freely from government pharmacies to all asthmatics.
Many patients either are not aware that they have asthma; or have not been given optimal treatment; or have not been taught about their condition and its proper treatment; or are not concordant with treatment. A number of patients with moderate-to-severe asthma are still using bronchodilators alone, frequently in overdosage.

When they have an exacerbation of asthma, patients will visit their GP for assistance. The family doctor should be able to manage the acute asthmatic attack (possibly with the use of nebulised treatment), identify the trigger for the current attack, educate the patient about his/her condition and its proper treatment, and provide follow-up.

The use of PEFR diaries and spirometry enable the GP to diagnose asthma and offer the best treatment. Spirometry is also very useful for the diagnosis and management of COPD. This diagnostic modality is probably underused in local community practice. The family doctor should be able to interpret spirometry results, and may decide to use a spirometer in his/her own practice.

Chronic respiratory disease requires an interdisciplinary approach to ensure the best outcome for the patient. For this reason, the family doctor should liaise closely with the respiratory physician, practice nurse, community nurse, physiotherapist, occupational therapist and pharmacist.

In the Maltese islands, lung cancer is the second most common cancer (excluding non-melanocytic skin cancer) and it carries the highest mortality. GPs need to be alert to ‘red flag symptoms’ such as weight loss, haemoptysis and unresolving pulmonary signs, in order to refer these cases urgently for investigation and secondary care.

The WHO estimates that 20.4% of Maltese females and 29.2% of males smoke tobacco. Therefore, the GP has an important role in providing sensitive and tailored advice, and possibly pharmacological help and/or referral to specialized services, to those patients who wish to stop smoking.

Learning Outcomes

The following learning objectives relate specifically to the family doctor’s role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the respiratory system. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.
By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with a respiratory problem.

2. Appreciate the importance of the social and psychological impact of respiratory problems on the patient, his/her family, friends, dependants and employers.

3. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic or terminal illness.

4. Ask all patients about smoking status, identify health beliefs regarding tobacco smoking, and either challenge or reinforce these as appropriate. Ensure that personal opinion about smoking does not prejudice clinical management. Offer non-judgemental advice and help the willing patient to quit, possibly with the help of drugs or referral to smoking cessation sessions (such as those held by the Department for Health Promotion and Disease Prevention). Recognize the stigma associated with smoking when giving health promotion advice to ensure the doctor–patient relationship is not damaged.

5. Perform a complete examination of the respiratory system.

6. Demonstrate knowledge of the epidemiology of respiratory problems in the local community to assist diagnosis.

7. Recognize particular groups of patients at higher risk of acquiring a respiratory infection, e.g. extremes of age, those with other underlying lung pathology, immunocompromised, alcoholics.

8. Explain the role of serial peak flow measurement, reversibility testing and spirometry in the diagnosis of asthma and COPD. Illustrate technique to use a PEFR meter and interpret result. Operate a hand-held spirometer and interpret result.

9. Apply sound evidence-based criteria to assess severity of respiratory illness, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

10. Intervene urgently when patients present with a respiratory emergency, e.g. anaphylaxis, inhaled foreign body, epiglottitis, etc...

11. Recognize that breathlessness may have several coexisting causes (e.g. simultaneous cardiac and respiratory disease) and determine optimum management for these.
12. Demonstrate an evidence-based approach towards investigation and management of respiratory problems.

13. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from respiratory disease, particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable.

14. Assess the likelihood of occupational exposure as a cause of respiratory disease (e.g. asthma or COPD) and make appropriate recommendations.

15. Recognize that lung cancer is the leading cause of cancer deaths in both men and women, often affecting young patients. Recognise that suboptimal care and poor adherence to medication still contribute to unnecessary deaths from asthma.

16. Show wide knowledge on the pharmacological treatment options for respiratory disease and the diverse modes of drug delivery. Demonstrate a consistent, evidence-based approach to drug prescribing for respiratory infections, including the use of antibiotics, glucocorticoids, inhaled medication and oxygen therapy.

17. Demonstrate how to give nebulised treatment when indicated.

18. Explain and illustrate how to use an inhaler device, oxygen cylinder, oxygen mask, nebuliser machine and nebuliser mask.

19. Coordinate care with other health care professionals, such as respiratory physician, public health physician, practice nurse, community nurse, physiotherapist, occupational therapist and pharmacist to enable respiratory disease management and pulmonary rehabilitation.

20. Manage cases of infectious respiratory disease (e.g. pandemic influenza) appropriately using adequate protective equipment, ventilated premises and isolation to prevent spread of infection to staff (including self) and other people.

21. Notify the following conditions to the Infectious Disease Prevention and Control Unit: 
   - AIDS
   - Antimicrobial resistance
   - Chlamydia infection
   - Diphtheria
   - Haemophilus influenza group B
   - Influenza
- Legionellosis
- Listeriosis
- Nosocomial infection
- Pertussis
- Pneumococcal infection
- Pneumonia
- Q-fever
- Scarlet Fever
- Severe Acute Respiratory Distress Syndrome (SARS)
- Tuberculosis
- Tularaemia

Knowledge base

Symptoms:
Cough, wheeze, dyspnoea, chest pain, sputum production, haemoptysis.

Common and/or important conditions:
- Upper respiratory tract infections: sore throats and colds, tonsillitis, peritonsillar abscess, epiglottitis, laryngitis and tracheitis
- Lower respiratory tract infections: influenza, bronchiolitis, bronchitis and pneumonia (any cause), tuberculosis
- Acute non-infective respiratory problems: allergy and anaphylaxis, hypersensitivity pneumonitis, pulmonary embolus, pneumothorax, aspiration of a foreign body
- Chronic lower respiratory problems: chronic cough, asthma, COPD, cystic fibrosis, chronic interstitial lung diseases
- Lung cancer

Investigation:
- PEFR: serial measurement, reversibility testing, patient diaries
- Spirometry: indications, technique and interpretation
- Plain chest X-rays: indications and interpretation
- Knowledge of secondary-care investigations including computerized tomography (CT) and magnetic resonance imaging (MRI).

Treatment:
- Understand principles of treatment for common conditions managed largely in primary care – upper and lower respiratory tract infections, asthma, COPD, allergic reactions and anaphylaxis
- Inhaler technique for using commonly used devices.

Emergency care:
- Acute management of people presenting with shortness of breath
- Acute management of anaphylaxis
- Management of exacerbations of asthma and COPD
- Understand indications for emergency referral of people with novel influenza, asthma, COPD and anaphylaxis.

**Prevention:**
- Smoking cessation assessment, advice and management
- Vaccination against influenza, *Streptococcus pneumoniae*, *Haemophilus influenzae B*, diphtheria, pertussis and tuberculosis
- Health education advice and patient self-management plans for people with chronic respiratory disease
- Understand avoidance of triggers and use of prophylaxis for allergic conditions
- Proper handling of cases of infectious respiratory disease to avoid spread of infection to staff or other people.

**Relevant Guidelines:**

- *Respiratory tract infections: antibiotic prescribing* (NICE)
- *Antimicrobial Prescribing Guidelines*  
  (Antibiotic Team, Government Health Services 2004)
- *Management of Cough in Adults*  
  (British Thoracic Society)
- *Asthma*  
  (GINA; BTS and SIGN)
- *Consensus guideline on the use of inhaler devices in asthma*  
  (Working Party Guidelines – UK)
- *Chronic Obstructive Lung Disease*  
  (GOLD; NICE)
- *Malta Guidelines for the Management of COPD*  
  (Depts. of Medicine and Pharmacy, University of Malta)
- *Influenza immunization policy*  
  (Dept. of Health Promotion and Disease Prevention)
- *Community Acquired Pneumonia Management*  
  (BTS)
- *Summary of pneumococcal immunisation policy*  
  (DOH, UK)
- *Tuberculosis: Diagnosis, Management, Control*  
  (RCP)
- *Guidelines for the management of suspected cases of novel influenza A*  
  (Infectious Disease Prevention and Control Unit, Malta)
- *Air travel and respiratory disease*  
  (BTS)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as examination of the respiratory system; performing a peak flow measurement; formulating a differential diagnosis; interpreting laboratory and spirometry results; interpreting plain chest X-rays; negotiating a management plan; prescribing for respiratory disease; illustrating nebuliser use and inhaler technique.
- Tutorials on principles of respiratory disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
- Random case analysis of consultations for a respiratory condition.
- Analysis of video recorded consultations for a respiratory condition.
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as examination of the respiratory system; performing a peak flow measurement; operating a hand-held spirometer and interpreting results; formulating a differential diagnosis; interpreting laboratory results; interpreting plain chest X-rays; prescribing for respiratory disease; illustrating nebuliser use and inhaler technique both in medical wards as well as at the asthma and medical outpatient clinics.
- Observation of multidisciplinary approach and teamwork.
- Tutorials on principles of respiratory disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources.
- Interactive half-day release programme sessions about respiratory conditions.
• Conferences and courses (both local and international) dealing with respiratory pathology.
• Informal discussions with trainer and peers.
• Learning opportunities with other health care professionals e.g. seminars with respiratory physicians, nurses, pharmacists, physiotherapists, etc...

**Formative Assessment**

• Analysis of video recorded consultations for a respiratory condition
• Mini-clinical examination e.g. respiratory system examination
• Directly observed procedures e.g. measuring PEFR; administering nebulised treatment
• Analysis of Educational Portfolio
• Case-Based Discussion on consultations for a respiratory condition
• Patient Satisfaction Questionnaire.

**References:**

10. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health.

**Reference Document used as a model:**

Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.8 – Respiratory Problems*

**Further Reading:**


**Internet Resources:**

- International practice guidelines, updated regularly: http://www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 37.

Digestive Tract Problems

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Date: 5th August 2008

Reference Document:
RCGP Curriculum Statement No. 15.2 – Digestive Problems
Introduction

Rationale

Digestive tract problems are extremely common in general practice. The family doctor has a central role in the diagnosis and management of digestive problems in primary care. This curriculum statement covers the entire gastrointestinal tract, including the oesophagus, stomach, intestines, hernias, appendix, liver, pancreas, gall bladder and perianal area. A wide range of conditions traditionally considered either ‘medical’ or ‘surgical’ are covered.

Symptoms that relate to this system are often considered socially embarrassing by the patient, and this may lead to late presentation of disease. These same symptoms may lead to a significant impairment in quality of life, loss of days of work, and social isolation. Most commonly-used medicines can have gastrointestinal side-effects. The family doctor must be very careful when prescribing treatment to susceptible individuals, to avoid causing harm to these patients.

The endoscopic revolution has led to relatively easy visualization and biopsy of the upper and lower gastrointestinal tract, with precise histological diagnosis. Radiographic imaging of the liver, gallbladder and pancreas with ultrasound, computerized tomography and magnetic resonance imaging is becoming ever more detailed, and can aid accurate and timely diagnosis of pathology in these organs. The family doctor needs to be familiar with these modalities of investigation, and know how to use them appropriately and cost-effectively.

Nowadays, more people are travelling abroad, including to ‘exotic’ destinations. The GP should be very well informed and be able to provide practical advice and leaflets on the prevention of traveller’s diarrhea. Also, he/she should be conversant with the indications and vaccination schedules for the prevention of hepatitis A and B, and typhoid.

Maltese health care priorities

When considering the frequency of presentation to the Maltese family doctor, digestive tract symptoms such as nausea, vomiting, diarrhoea and abdominal pain are second only to symptoms pertaining to the respiratory system.1 Likewise, the diagnosis of gastroenteritis (cause unspecified) is the third most common diagnosis in general practice.1

This demonstrates the huge burden of gastrointestinal disease that is encountered by the GP in his/her everyday work, and the need for the latter to be
proficient in the diagnosis and management of this common condition, which may range from mild and self-limiting, to severe with dehydration, to confusion and death. At the same time, the family doctor must not miss other potentially deadly conditions such as acute appendicitis, intussusception and mesenteric ischaemia, which can all present in a similar manner to gastroenteritis. Good history-taking and clinical examination skills are essential in this situation.

Most of the gastroenteritis seen by GPs is thought to have a viral cause. Supportive measures and electrolyte replacement are enough to treat these patients. Unfortunately, antimicrobials (mainly fluoroquinolones) are often misused in this situation, with the effect of contributing to the development of plasmid-mediated resistance. Also, anti-diarrhoeal agents are probably overused in the community.

A vaccine against rotavirus has been introduced into the local private market for use in infants. It can help reduce the risk of gastroenteritis in this age group. However, the GP should make a personal cost/benefit analysis and discuss this with the parents.

Constipation and haemorrhoids are frequently encountered conditions¹ that may seem trivial to the doctor, but are extremely uncomfortable and embarrassing to the patient. Patients would usually have tried several OTC medications before presenting to their family doctor, and treatment involves making lifestyle changes. Therefore, a sensitive approach, health education about nutrition, and an agreed management plan go a long way to help the patient.

Irritable bowel syndrome is another common diagnosis in Maltese general practice¹, and care must be taken to exclude other insidious pathology such as colorectal cancer, coeliac disease and inflammatory bowel disease. The family doctor should be prepared to involve him/herself more closely in the management of the latter chronic conditions, always liaising with the gastroenterologist, dietitian, pharmacist and specialized nurses.

Gastro-oesophageal reflux disease and peptic ulcer disease are other frequent conditions that can lead to significant morbidity. With the advent of a breath test and other tests for Helicobacter pylori, and readily available effective treatment, this infection can be diagnosed and managed largely by the GP, with resulting resolution of symptoms and prevention of complications.²

In the Maltese islands, colorectal cancer is the second most common cancer (excluding non-melanocytic skin cancer) whereas stomach cancer and pancreatic cancer stand at the seventh and ninth places respectively. The five year relative survival for colorectal cancer between 1995 and 1999 was only 51.2%.³ GPs need to be alert to ‘red flag symptoms’ such as weight loss, intestinal obstruction and pain unresponsive to treatment, in order to refer these cases urgently to secondary care. In addition, a family history of colorectal cancer should prompt
the doctor to initiate screening for this preventable condition in patients who have reached middle-age.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the digestive tract. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care contact with any patient who presents with a digestive tract problem.

2. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, clarifying terms used by the patient to describe ailments relating to the gastrointestinal tract (e.g. diarrhea, constipation and dyspepsia).

3. Show empathy and compassion in the approach towards patients with chronic or terminal illness.

4. Recognize that some patients may find digestive problems, particularly relating to the lower GI tract, difficult to discuss openly. Thus, the GP should demonstrate a non-judgemental, caring and professional consulting style to minimise embarrassment of patients with digestive problems. He/she should recognise the reluctance of some patients to undergo rectal examination and respect the patient’s autonomy.

5. Appreciate the impact of social and cultural diversity, and the important role of health beliefs relating to diet, nutrition and gastrointestinal function.

6. Recognize that psychological stress frequently affects gastrointestinal function and can exacerbate disease of this system.

7. Advise patients appropriately regarding lifestyle interventions that have an impact on gastrointestinal health, such as advice on healthy diet, smoking cessation and stress reduction.

8. Demonstrate complete abdominal examination, including rectal examination.

10. Explain the indications for referral to secondary care, and whether routine or urgent referral is appropriate.

11. Demonstrate an evidence-based approach towards investigation and management of digestive tract problems.

12. Describe the gastrointestinal side-effects of common medicines. Modify the form or modalities of treatment to cater for the patient's GI function and preferences.

13. Recognize the place of simple therapy and expectant measures in cost-effective management, provided 'red-flag symptoms' have been excluded/investigated and the patient's condition is adequately monitored.

14. Explain the GP's role to 'test and treat' for Helicobacter pylori in the management of dyspepsia.

15. Demonstrate the ability to support and empower people to self-care, possibly with the involvement of their family members.

16. Liaise with other healthcare professionals e.g. gastroenterologist; dietitian; stoma nurse; and pharmacist to achieve the best outcome for the patient.

17. Notify the following conditions to the Infectious Disease Prevention and Control Unit:  
   - AIDS
   - Antimicrobial resistance
   - Botulism
   - Campylobacteriosis
   - Cholera
   - Cryptosporidiosis
   - Dysentery (amoebic and bacillary)
   - E.coli (Enterohaemorrhagic)
   - Food-borne illness
   - Giardiasis
   - Hepatitis A
   - Hepatitis B
   - Hepatitis C
   - Leishmaniasis
   - Salmonellosis
   - Shigellosis
   - Yersiniosis
Knowledge base

Symptoms:
- Nausea, vomiting,
- Dyspeptic symptoms (epigastric pain, heartburn, regurgitation, nausea, bloating, flatulence)
- Diarrhoea, constipation
- Anorexia, weight loss
- Abdominal pain
- Haematemesis, melena
- Rectal bleeding
- Tenesmus
- Jaundice
- Dysphagia.

Common and/or important conditions:
- Gastroenteritis (viral; bacterial; parasitic)
- Constipation
- GORD
- Non-ulcer dyspepsia, gastritis, peptic ulceration
- Gallstones
- Irritable bowel syndrome
- Coeliac disease
- GI cancers (oesophageal, gastric, hepatic, pancreatic, colonic)
- Inflammatory bowel disease
- Diverticular disease
- Acute abdominal conditions, e.g. perforated peptic ulcer, appendicitis, cholecystitis, pancreatitis, intestinal obstruction
- Alcoholic and infective hepatitis; NASH (fatty liver); liver failure.
- Perianal disease e.g. haemorrhoids, perianal haematoma, pilonidal sinus, fistula.

Investigations:
Serum: Liver function tests; amylase; coeliac autoantibody screening
_H. pylori_ testing – serology, breath test, stool antigen testing
Stool: microscopy; culture and sensitivity; faecal occult bloods
Knowledge of secondary care investigations including:
- endoscopy (oesophago-gastro-duodenoscopy, sigmoidoscopy, colonoscopy);
- abdominal imaging techniques (ultrasound, barium swallow, barium enema, computed tomography);
- liver biopsy, endoscopic retrograde cholangio-pancreatography and jejunal biopsy.
Treatment:
- Understand principles of treatment for the abovementioned conditions.
- Show familiarity with medicines commonly used in the treatment of gastrointestinal disease.
- Be aware of secondary care management of digestive problems, including surgical options.

Emergency care:
- Recognition of the acute abdomen
- Acute management of haematemesis and melaena.

Prevention:
- The effects of smoking
- The food pyramid
- Food preparation and storage
- Travel health
- Proper hand washing
- Immunisation vs. rotavirus, hepatitis A and B, salmonella typhi

Relevant Guidelines:
- Management of dyspepsia in adults in primary care (NICE)
- Combination regimens for the eradication of H.pylori (NICE)
- Management of acute upper and lower gastrointestinal bleeding (SIGN)
- Management of faecal incontinence in adults (NICE)
- Irritable bowel syndrome: guidelines for general practice (Primary Care Society for Gastroenterology, UK)
- European evidence based consensus on the diagnosis and management of Crohn’s disease: definitions and diagnosis (ECCO)
- Guidelines for the management of inflammatory bowel disease in adults (British Society of Gastroenterology)
- The management of adults with coeliac disease in primary care (Primary Care Society for Gastroenterology, UK)
- Referral guidelines for suspected cancer (NICE)
- **Immunisation and Health risks for Travellers overseas**
  (British National Travel Health Network and Centre)
- **Health advice for travellers**
  (Medical Advisory for Travellers Abroad, UK)
- **Guideline to Effective Immunisation**
  (Health Promotion Dept; Dept. of Pharmacy, University of Malta 2006)
- **Guidelines for the prevention, testing, treatment and management of hepatitis C in primary care**
  (RCGP)

### Teaching and learning resources

#### Work-based learning – in primary care

- Observation and practice of skills such as examination of the abdomen; performing a digital rectal examination; formulating a differential diagnosis; interpreting laboratory results; negotiating a management plan; prescribing for digestive tract disease.
- Tutorials on principles of digestive tract disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
- Random case analysis of consultations for a digestive tract condition.
- Analysis of video recorded consultations for a digestive tract condition.
- Using Educational Portfolio to record learning points and reflections.

#### Work-based learning – in secondary care

- Observation and practice of skills such as examination of the abdomen; performing a digital rectal examination; formulating a differential diagnosis; interpreting laboratory results; prescribing for digestive tract disease.
- Observation of multidisciplinary approach and teamwork.
- Tutorials on principles of digestive tract disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.
- Using Educational Portfolio to record learning points and reflections.

#### Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources.
• Interactive half-day release programme sessions on digestive tract conditions.
• Conferences and courses (both local and international) dealing with digestive tract pathology
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with gastroenterologists, nurses, stoma nurses, pharmacists, nutritionists etc...

Formative Assessment

• Analysis of video recorded consultations for a digestive tract condition
• Mini-clinical examination e.g. abdominal examination
• Directly observed procedures e.g. digital rectal examination
• Analysis of Educational Portfolio
• Case-Based Discussion on consultations for a digestive tract condition

References:

4. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 15.2 – Digestive problems

Further Reading:


**Internet Resources:**

- International practice guidelines, updated regularly:
  http://www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information:
  http://cks.library.nhs.uk/home
Chapter 38.

Neurological Problems

Author: Dr Daniel Sammut MD MMCFD

Date: 21st February, 2009

Reference Document:

RCGP Curriculum Statement No. 15.7 – Neurological Problems
Introduction

Rationale

Neurological problems are common. They may present as acute emergencies or as part of a long-term complex problem with an evolving natural history. The presentation of a neurological problem may indicate the presence of a disorder confined to a part of the nervous system or may indicate the beginning of a multisystem or other disease (e.g. dizziness). Symptoms attributable to a neurological cause may be due to minor, self-limiting disease or to a more sinister problem. The aetiology of headache, the most common neurological symptom seen by Maltese GPs, can range from the commonplace tension headache, to vision-threatening temporal arteritis, to life-threatening subarachnoid haemorrhage. Family doctors should have the clinical skills to diagnose and manage all neurological conditions appropriately.

Neurological problems tend to be chronic in nature (e.g. epilepsy, Parkinson's disease; Alzheimer’s dementia), and onset is often insidious. With an ageing population, the prevalence of degenerative diseases is rising. People with chronic debilitating illness and their carers need frequent consultations and ongoing support. The GP has a role in the provision and organisation of this and coordinating with secondary care. Voluntary organizations and self-help groups also have a vital function in supporting these people and their families.

Maltese health care priorities

Stroke is the second most common cause of mortality in Malta, accounting for 10.7% of all deaths. Females outnumber males in the number of deaths due to cerebrovascular disease, unlike in deaths due to ischaemic heart disease. Stroke is also the most common cause of long-term morbidity. Cerebrovascular disease is largely preventable and family doctors can do much to mitigate the effect of risk factors for atherosclerosis. Screening and adequate control of hypertension, in particular, is an area where GP intervention can dramatically reduce the risk for stroke (by 38%). Prompt intervention after TIA is very important. In patients with atrial fibrillation, anticoagulation can reduce the risk of embolic stroke by 62%. Diabetes mellitus is common in the Maltese islands. Diabetes causes many neurological problems such as ischaemic stroke, mononeuropathy (e.g. cranial nerves), peripheral neuropathy and autonomic neuropathy. These manifestations carry a huge amount of morbidity and sometimes even lead to mortality. As with other microvascular complications, risk of developing diabetic neuropathy is proportional to both the magnitude and duration of hyperglycemia, and some
individuals may possess genetic attributes that affect their predisposition to developing such complications.\textsuperscript{4}

It is estimated that there are more than 3,000 persons with epilepsy in the Maltese Islands.\textsuperscript{5} Epilepsy is one of the commonest serious neurological disorders seen in general practice, in A&E and in hospital. However, patients with epilepsy have frequently not been regularly monitored by their GP or any other doctor. Furthermore, there is sometimes a failure of proper communication between primary and secondary care. Approximately 10\% of people with epilepsy have attacks that are difficult to control, and poor management has been implicated in the fact that people with epilepsy are at three times the risk of suffering sudden unexpected death. Good proactive advice in the context of an integrated service provided by doctors and nurses may reduce A&E attendance, unnecessary hospitalization and mortality from epilepsy.\textsuperscript{6}

The Caritas Malta Epilepsy Association (CMEA) was set up by voluntary workers in 1996 and now lists almost 300 members. The Association is for persons with Epilepsy and their families. It aims to promote education and local awareness about epilepsy, especially because of the stigma suffered by people with this condition in society particularly in employment. The educational campaign on various local communication media is aimed at improving health care services, treatment and social acceptance of epilepsy, as a serious yet treatable brain disorder. Raising public and professional awareness and dispelling myths about epilepsy is one of the key objectives. Lately patient diaries and patient identity cards were also launched specifically for the use of those having epilepsy. This campaign is part of a worldwide campaign called Epilepsy Out Of The Shadows by the International Bureau for Epilepsy, The International League Against Epilepsy (ILAE) and WHO. CMEA works closely in Malta with the Department of Clinical Pharmacology and Therapeutics at the University of Malta and the Maltese Chapter of the International League Against Epilepsy, The Epilepsy Society of Malta which is the professional organization.\textsuperscript{5}

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the respiratory system. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care contact with any patient who presents with a neurological problem.
2. Describe the central role of primary care in managing chronic neurological disease.

3. Appreciate the importance of the social and psychological impact of neurological problems on the patient, his/her family, friends, dependants and employers. Recognise the stigma associated with neurological disability.

4. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic or terminal illness.

5. Promote a healthy life-style and screen for hypertension in all adults, and for atrial fibrillation in the elderly. Do the utmost to control these risk factors by encouraging therapeutic lifestyle changes and using pharmacological means. Recognise that suboptimal care and poor adherence to medication contribute to unnecessary deaths from stroke.

6. Perform a complete neurological examination of the cranial and peripheral nervous system including visual acuity, visual fields and fundoscopic examination. Describe the functional anatomy of the nervous system to aid diagnosis.

7. Demonstrate knowledge of the relative prevalence of neurological problems in the local community to assist diagnosis.

8. Recognize particular groups of patients at higher risk of neurological disease (e.g. family history of dementia; mental retardation; alcoholics).

9. Intervene urgently when patients present with a neurological emergency (e.g. seizures; stroke)

10. Recognize that neurological symptoms and signs may have various systemic causes (e.g. diabetes mellitus; vasculitis; psychogenic) and determine optimum management for these.

11. Demonstrate an evidence-based approach towards investigation and management of neurological problems. Describe the functional anatomy of the nervous system to aid diagnosis.

12. Demonstrate a structured, logical approach to the diagnosis of ‘difficult’ symptoms with multiple causes, e.g. headache, dizziness.

13. Negotiate a realistic and comprehensive management plan in partnership with patients (and their carers) who suffer from neurological disease, particularly of
chronic nature. Empower patients to self-manage their conditions as far as practicable.

14. Screen for depression in patients with chronic neurological disease and in their carers. Recognise the importance of tackling this aspect of care to improve quality of life and prognosis.

15. Show wide knowledge on the pharmacological treatment options for neurological disease and the diverse modes of drug delivery. Demonstrate a consistent, evidence-based approach to drug prescribing for neurological disease.

16. Apply sound evidence-based criteria to assess severity of neurological disease, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

17. Communicate prognosis truthfully and sensitively to patients with incurable disabling neurological conditions, such as Parkinson's disease and multiple sclerosis, and share uncertainty when the patient wants this information. Encourage and help the patient and his carers to access the services of government agencies, voluntary organisations and self-help groups.

18. Describe the importance of continuity of care for patients with chronic neurological conditions. Use time as a diagnostic tool for chronic neurological conditions.

19. Coordinate care with other health care professionals, such as neurologist, neurosurgeon, physicians, practice nurse, specialised nurse, physiotherapist, occupational therapist and pharmacist to enable chronic disease management and neurological rehabilitation.

20. Notify the following conditions to the Infectious Disease Prevention and Control Unit:
   - AIDS
   - Acute encephalitis
   - Acute flaccid paralysis
   - Antimicrobial resistance
   - Bacterial meningitis, other than meningococcal
   - Meningococcal disease
   - Poliomyelitis
   - Rabies
   - Syphilis
   - Tetanus
   - Toxoplasmosis
   - Transmissible spongiform encephalopathies, variant Creutzfeldt-Jakob disease
• Tuberculosis

Knowledge base

Symptoms:
- Headache
- Vertigo/dizziness
- Tremor
- Paraesthesiae
- Neuralgia
- Weakness
- Abnormal movements/chorea
- Dyskinesia
- Rigidity
- Seizures
- Drowsiness
- Loss of consciousness and coma.

Common and/or important conditions:
- Common causes of headache – tension headache, migraine, cluster headache, cervical neuralgia, sinusitis, dental pain, drug rebound headache
- Important causes of headache – raised intracranial pressure, subarachnoid haemorrhage, enlarging aneurysm, migraine, temporal arteritis, trigeminal neuralgia, herpes zoster, cancers
- Intracranial haemorrhage (extradural; subdural; subarachnoid)
- Epilepsy
- Brain infections – meningitis, encephalitis, brain abscess, tuberculosis, HIV
- Neurological causes of vertigo – stroke (brainstem and cerebellar haemorrhage/infarction), multiple sclerosis, trauma and concussion, acoustic neuroma, brain tumours
- Mononeuropathies – trigeminal neuralgia, Bell’s palsy, carpal tunnel syndrome, nerve entrapments, e.g. ulnar, sciatic and femoral nerves
- Polyneuropathies – metabolic causes (diabetes, alcohol, vitamin B12 and folate, porphyria, uraemia, infectious causes (e.g. Guillain-Barré, post viral, HIV), drug-induced neuropathy
- Multiple sclerosis
- Amyotrophic lateral sclerosis
- Essential tremor
- Dementia
- Parkinson’s disease
- Congenital conditions, e.g. cerebral palsy, spina bifida
- Genetic conditions, e.g. Huntington’s disease.
Investigation:
Knowledge of secondary care investigations including: electro-encephalography (EEG), computerized tomography (CT) and magnetic resonance imaging (MRI and MRA), nerve conduction studies.

Treatment:
Understand principles of treatment for common conditions managed largely in primary care – epilepsy, headache, vertigo, neuropathic pain, mononeuropathies, essential tremor, dementia and Parkinson’s disease.

Emergency care:
- Acute management of meningitis and meningococcal septicaemia
- Acute management of people presenting with collapse, loss of consciousness or coma
- Understand indications for emergency referral of people with stroke, intra-cranial haemorrhage, raised intracranial pressure and temporal arteritis.

Prevention:
- Health education and accident prevention advice for people with epilepsy
- Vaccination for meningococcal disease for travellers
- Understand avoidance of triggers and prophylaxis for migraine
- Investigation of people with family history of genetic neurological disease, e.g. Berry aneurysm, Huntington’s chorea.

**Relevant Guidelines:**

- **Epilepsy: Evaluating an apparent unprovoked first seizure in adults** (American Academy of Neurology)
- **The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care** (NICE)
- **Principles of epilepsy management** (Epilepsy Action)
- **Managing chronic headaches in the clinic** (Migraine in Primary Care Advisors)
- **Guidelines for the management of migraine in primary care** (Migraine in Primary Care Advisors)
- Guidelines for all doctors in the diagnosis and management of migraine and tension-type headache
  (British Association for the Study of Headache)
- Stroke: Diagnosis and initial management of transient ischaemic attack
  (NICE)
- Stroke: Management of Stroke
  (Intercollegiate Stroke Working Party UK)
- Chronic fatigue syndrome/myalgic encephalomyelitis (or encephalopathy)
  (NICE)
- Dementia: supporting people with dementia and their carers in health and social care
  (NICE)
- Parkinson’s disease: diagnosis and management in primary and secondary care
  (NICE)
- The GP’s guide to Parkinson’s disease
  (The Primary Care Task Force for the Parkinson’s Disease Society)
- Multiple sclerosis: management of multiple sclerosis in primary and secondary care
  (NICE)
- Management of restless legs syndrome in primary care
  (RLS:UK)
- Diagnosing and managing neuropathic pain: guidance for the primary care team
  (Working Party – UK)

Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a meticulous history; examination of the neurological system; formulating a differential diagnosis; negotiating a management plan in partnership with the patient and carers; prescribing for neurological disease; dealing efficiently with emergencies; referring as appropriate
- Tutorials on principles of neurological disease epidemiology; prevention; clinical presentation; differential diagnosis; investigation; and management
- Random case analysis of consultations for a neurological condition
- Analysis of video recorded consultations for a neurological condition
• Using Educational Portfolio to record learning points and reflections

Work-based learning – in secondary care
• Observation and practice of skills such as taking a meticulous history; examination of the neurological system; formulating a differential diagnosis; ordering laboratory and radiology investigations and interpreting results; negotiating a management plan in partnership with the patient and carers; prescribing for neurological disease; dealing efficiently with emergencies
• Observation of multidisciplinary approach and teamwork
• Tutorials on principles of neurological disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
• Using Educational Portfolio to record learning points and reflections

Other learning opportunities
• Private study of GP textbooks, current guidelines, BNF, journals and internet resources
• Interactive half-day release programme sessions about neurological conditions
• Conferences and courses (both local and international) dealing with neurological pathology
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with neurologists, neurosurgeons, nurses, pharmacists, physiotherapists, speech and language pathologists, etc...

Formative Assessment
• Analysis of video recorded consultations for a neurological condition
• Mini-clinical examination e.g. full neurological examination
• Case-based discussion on consultations for neurological conditions
• Analysis of Educational Portfolio
• Patient Satisfaction Questionnaire
• Multisource feedback.
References:

5. www.caritasmalta.org/epilepsy/index.htm
7. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health.

Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.7 – Neurological Problems*

Further Reading


**Internet Resources:**

• Caritas Malta:  www.caritasmalta.org/epilepsy/index.htm
• International League Against Epilepsy:  www.ilae.org/Visitors/Chapters/Index.cfm?pick_list=MALTA
• Malta Parkinson’s Disease Association:  www.maltaparkinsons.com
• National Institute for Health and Clinical Excellence:  www.nice.org.uk
• National Electronic Library:  www.nelh.nhs.uk/new_users.asp  www.phel.gov.uk/
• International clinical Guidelines:www.clinicalguidelines.org/neurology.htm
• NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information:  http://cks.library.nhs.uk/home
Chapter 39.

Endocrine and Metabolic Problems

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Date: 12th June, 2009

Reference Document:
RCGP Curriculum Statement No. 15.6 – *Metabolic Problems*
Introduction

Rationale

For the purpose of this curriculum statement, metabolic problems include obesity, diabetes mellitus, thyroid disorders, hyperlipidaemia, hyperuricaemia and other endocrine problems.

Obesity is a risk factor for a variety of medical problems, including Type 2 diabetes, hypertension, hyperlipidaemia, coronary heart disease, stroke, osteoarthritis, cancer of the breast, prostate and colon, gout, gallstones and sleep apnoea. People who are overweight have a higher all-cause mortality than average, which increases with greater obesity. Curbing obesity in our population is a priority in attempt to effectively reduce and control the spiraling rates for co-morbid states, in particular diabetes mellitus and cardiovascular disease.

Type-2 diabetes, which accounts for around 90–95% of all cases of diabetes, is characterised by insulin resistance and is often associated with obesity. Consequently, the incidence of type-2 diabetes is projected to increase as populations age, urbanisation increases, diets become even more ‘westernised’ and levels of physical activity decrease. By 2030, the International Diabetes Federation predicts that more than 330 million people will have diabetes worldwide.

Diabetes mellitus is the most important cause of blindness in adults, of non-traumatic lower-limb amputation and of kidney failure resulting in transplantation and dialysis. In addition, the risk of coronary heart disease is two to four times higher in diabetes patients. The risk of stroke or peripheral vascular disease also increases strongly. As a consequence, the management and treatment of type-2 diabetes involves more than the mere control of blood glucose values. This entails a multidisciplinary approach, based on structured and shared care, in which GPs have a coordinating role, ensuring that all people with type-2 diabetes receive effective and appropriate diabetes care.

Thyroid problems (both hyper and hypo states) and hyperuricaemia are important conditions that impact on quality of life. They are relatively common in our community and thyroid problems can easily be missed. This makes it essential that the family doctor is competent in dealing with these conditions and related problems, as well as the management of diabetic, thyroid and adrenal emergencies.

Hyperlipidaemia is a common and important modifiable risk factor. Therapeutic lifestyle changes should always be strongly encouraged. People whose cardiovascular risk is low should have total cholesterol of ≤5mmol/l and Low-Density Lipoprotein (LDL) ≤3 mmol/l. In individuals who have diabetes mellitus or
established cardiovascular disease the target total cholesterol is $\leq 4\text{mmol/l}$ and LDL $\leq 2\text{mmol/l}$. The latter category will require therapy with statins and possibly fibrates.

The metabolic syndrome or insulin-resistance syndrome has received enormous attention in recent years. This ‘clustering’ of metabolic abnormalities that occur in the same individual appear to confer a substantial additional cardiovascular risk over and above the sum of the risk associated with each abnormality. The International Diabetes Federation defines it as abdominal obesity plus any two of:

- raised triglycerides,
- reduced HDL,
- raised BP (or previous HT), or
- raised fasting blood glucose (or previous diabetes mellitus).

Patients with metabolic syndrome should have aggressive management of these risk factors that should include therapeutic lifestyle modifications, statins, fibrates, anti-hypertensives and oral hypoglycaemics agents.

Hyperuricaemia is also commonly encountered in general practice as extremely painful urolithiasis and gout, and successful diagnosis and management of these conditions desirable.

**Maltese health care priorities**

In tandem with other worldwide trends, the prevalence of obesity is increasing in Malta across all gender and age groups. Recent studies reveal that many Maltese children are overweight, globally ranking as 2nd most obese children in the profile studied. This can be traced to unhealthy eating habits starting from infancy, together with lack of physical exercise.

The local breast feeding rates at discharge from hospital are still very low and breastfeeding at 6 months of age still at a poor 10%. The recent enforcement of the Baby Friendly Hospital Initiative at Mater Dei may act as the desired catalyst to seeing an improvement in breastfeeding rates. Health maintenance in our population banks on promoting and reinforcing healthy lifestyles based on healthy eating habits and regular exercise across all age groups. Family Doctors have a pivotal role due to having constant opportunities to educate and encourage healthy lifestyles, this starting from a sufficiently early age to positively impact on the health of our future generation.

The Health Promotion Department is similarly targeting the population needs through encouraging people of all age groups to engage in sports and physical activity. ‘Skola Sport’ and ‘Summer on the Move’ are fine examples of such efforts, gaining attendance of increasing numbers of children and adults alike.
More efforts could be directed in encouraging adults to walk and cycle more instead of driving.

The current prevalence of type-2 diabetes in Malta is estimated to be approaching 4% and the majority of new cases are diagnosed within primary care. This is primarily a consequence of increasing levels of obesity, less physical activity, and increased consumption of calorie dense food. Both the UK and Finnish Diabetes Prevention Study have demonstrated the impact of sustained change in lifestyle behaviour on the progression of pre-diabetic states such as impaired glucose tolerance (IGT) to type-2 diabetes. Although no data exist from Maltese General Practice, the numbers needed to treat in these studies for moderate sustained weight loss were 7 and 5, respectively. Patients with pre-diabetes are considered to be at significant risk of type-2 diabetes and cardiovascular disease.

The MCFD appreciates the importance of training and empowering local GPs in the evidence-based management of diabetes mellitus. Many diabetic patients do not need to be followed up by an endocrinologist at frequent intervals. It is the GP who should take primary responsibility for the care of his diabetic patients. For this reason, a Certificate in Diabetes has been recently organised by the MCFD under the auspices of the Irish College of GPs. It is now hoped that the promised reform in Primary Health Care will recognize the skills of the Maltese GP in dealing with diabetes, and provide him with the appropriate investigative and treatment tools to enable him/her to deliver a quality service to diabetic patients.

The magnitude of the challenge that diabetes presents to health services is strikingly clear. Diabetes was the fourth leading cause of death for 2008, with a mortality rate very similar to most developed countries. The cost related to treating diabetes and its complications constitutes a significant financial burden. Thus, shifting this workload towards primary care is obviously beneficial.

Learning Outcomes

The following learning objectives describe the knowledge, skills and attitudes that a GP requires when managing patients with metabolic problems.

By the end of the specialist training, the trainee is expected to:

Primary care management

- Manage primary contact with patients who have a metabolic problem.
- Coordinate care with other primary care health professionals, such as ophthalmologists, diabetes nurse specialists, dieticians, community
nurses, pharmacists, podologists and psychologists to enable chronic disease management.

- Indicate those cases that need referral to an endocrinologist for management of complex metabolic problems or investigation of endocrine disorders.

Person-centred care

- Recognise that non-compliance is common for chronic metabolic conditions (e.g. diabetes) and respect the patient’s autonomy when negotiating management.

- Communicate the patient’s risk of complications from obesity and diabetes mellitus clearly and effectively in a non-biased manner, taking into consideration patient’s ideas and concerns about disease state and expectations from the encounter.

- Manifest the flexibility in approach to health promotion, adapting to the particular needs of certain groups with obesity or diabetes mellitus, aware that these require different approaches, e.g. children, adolescents and young adults, pregnant women, ethnic minorities, elderly and housebound patients.

- Negotiate a programme of weight reduction sensitively with patients, giving appropriate health promotion in keeping with patients’ understanding ability.

- Engage patient in treatment plans and lifestyle modification, empowering patient to enable better control of their metabolic state through advice regarding diet, exercise and pharmacological therapies as appropriate.

- Utilise disease registers and data-recording templates effectively for opportunistic and planned monitoring of metabolic problems to ensure continuity of care between different healthcare providers and manifest the ability to use such records for recall and audit purposes.

- Manifest awareness of the potential for abuse of medication e.g. thyroxine, insulin.

Specific problem-solving skills

- Treat and manage metabolic problems, intervening urgently when patients present with a metabolic emergency, e.g. hypoglycaemia and hyperglycaemic conditions.
• Appreciate that patients with metabolic problems are frequently asymptomatic or have non-specific symptoms, and that appropriate diagnosis is often made subsequent to screening or recognising symptom complexes and carrying out appropriate investigations.

• Demonstrate a logical, incremental approach to investigation and diagnosis of metabolic problems.

A comprehensive approach

• Recognise that patients with diabetes often have multiple co-morbidities and consequently polypharmacy is common.

• Develop strategies to simplify treatment regimes thus encouraging compliance.

• Advise patients appropriately regarding lifestyle interventions for obesity, diabetes mellitus, hyperlipidaemia and hyperuricaemia.

• Understand the impact of chronic illness on the patient and demonstrate the ability to care for the patient in a holistic way throughout the different phases of the illness.

Community orientation

• Recognise that environmental and genetic factors affect the prevalence of metabolic problems, e.g. family history for diabetes.

• Recognise the importance and impact of public health interventions on obesity and diabetes mellitus, and support such programmes where possible, e.g. exercise on prescription, encourage patient to join exercise classes at Skola Sport, encourage patient to enroll as active members in relevant support groups, e.g. Malta Diabetes Association, Daisy (youth with Diabetes).

A holistic approach

• Show understanding of the psychosocial impact of diabetes and other long-term metabolic problems, e.g. risk of depression, restrictions on employment and driving for diabetes, sexual dysfunction.

• Recognise that stigma is associated with obesity.
• Empower patients to be in control of their circumstances, involve them in treatment decisions providing support for self care and self-management as far as practicable.

Contextual aspects

• Recognise the central role of primary care in managing diabetes and hypothyroidism.

• Describe the key government policy documents that influence healthcare provision for metabolic problems, Schedule III forms for Diabetics, Schedule V for thyroid problems, hyperuricaemia and hyperlipidaemia.

• Describe the systems of care for metabolic conditions, including the roles of primary and secondary care, shared-care arrangements, multidisciplinary teams and patient involvement, especially that involving the patient with diabetes.

Attitudinal aspects

• Ensure that the doctor's attitude towards the patient is not biased by patient's weight or other criteria (gender, age or race) and that the information communicated is not prejudiced.

• Ensure that patient is not coerced into complying with treatment through overstating risks of complications.

Scientific aspects

• Describe and implement the key national guidelines that influence healthcare provision for cardiovascular problems (e.g. NICE guidelines, British Hypertension Society Joint Committee recommendations, national frameworks and quality markers).

• Describe the key research findings that influence management of metabolic problems (e.g. UK Prospective Diabetes Study [UKPDS], Diabetes Control and Complications Trial [DCCT]).

• Describe the role of particular groups of medication in the management of diabetes (e.g. antiplatelet drugs, angiotensin-converting enzyme inhibitors, angiotensin-II receptor antagonists, and lipid-lowering therapies).
Knowledge base

Symptoms:
Patients with metabolic problems are frequently asymptomatic or have non-specific symptoms, such as tiredness, malaise, weight loss or gain, etc.

Clinical suspicion of metabolic problems when following symptoms present:
- Diabetes mellitus – tiredness, polydipsia, polyuria, weight loss, infections
- Hypothyroidism – tiredness, weight gain, constipation, hoarse voice, dry skin and hair, menorrhagia
- Hyperthyroidism – weight loss, tremor, palpitations, hyperactivity, exophthalmos, double vision
- Hyperlipidaemia – xanthelasma
- Hyperuricaemia – gout, urolithiasis
- Individual endocrine disorders have typical symptom complexes.

Common and/or important conditions:
- Obesity
- Diabetes mellitus – Type 1 and 2
- Impaired glucose tolerance
- Thyroid disorders – hypothyroidism, hyperthyroidism, goitre, nodules
- Hyperlipidaemia
- Hyperuricaemia
- Endocrine problems – pituitary disease (e.g. prolactinoma, acromegaly, diabetes insipidus), adrenal disease (e.g. Cushing’s syndrome, hyperaldosteronism, Addison’s disease, phaeochromocytoma) and parathyroid disease.

Investigations:
- Body mass index calculation
- WHO diagnostic criteria for diabetes mellitus
- Near patient capillary glucose measurement (including patient self-monitoring)
- HbA1c to assess glycaemic control
- Albumin: creatinine ratio or dipstick for microalbuminuria
- Interpret serum electrolyte and urate results
- Interpret thyroid function tests and understand their limitations – TSH, T4, free T4, T3, auto-antibodies
- Interpret lipid profile tests – total cholesterol, HDL, LDL, triglycerides, risk ratio
- Visual acuity
- Knowledge of secondary care investigations including the glucose tolerance test, thyroid ultrasound and fine needle aspiration, specialised endocrine tests.
**Treatment:**
- Understand principles of treatment for common conditions managed largely in primary care – obesity, diabetes mellitus, hypothyroidism, hyperlipidaemia, hyperuricaemia
- Chronic disease management including specific disease management, shared care, liaising to deliver structured care in a multidisciplinary teamwork for people with established metabolic problems.
- Communicating effectively with patients and their families, with other colleagues within the primary healthcare team and between other partners in primary and secondary care.

**Emergencies:**
- Acute management of diabetic emergencies – hypoglycaemia, hyperglycaemic ketoacidosis and hyperglycaemic hyperosmolar non-ketotic coma.
- Acute management of thyroid emergencies – myxoedema coma and hyperthyroid crisis.
- Recognition and primary care management of Addisonian crisis.

**Prevention:**
- Obesity and diabetes mellitus are risk factors for other diseases, so optimal management is preventative.
- Health promotion activities include dietary modification and exercise advice.
- Understand when prevention of hyperuricaemia is appropriate, e.g. patients treated for myelo/proliferative disorders.
- Opportunistic use of consultations for unrelated complaints, to promote education and prevention of these risk factors.

**Psychomotor skills**
- Calculating body mass index
- Measurement of abdominal circumference
- Demonstrate lower-leg examination for complications of diabetes mellitus
- Demonstrate capillary glucose measurement using a near-patient test
- Demonstrate clinical examination of the neck
- Demonstrate ophthalmoscopic assessment for diabetic retinopathy
Relevant Guidelines:

- *Increasing physical activity* (NICE)
- *Obesity in Adults and Children* (NICE)
- *Nutrition* (Department of Health Promotion and Disease Prevention)
- *Weight loss* (Department of Health Promotion and Disease Prevention)
- *Management of Type1 and Type 2 diabetes* (NICE, SIGN)

Teaching and learning resources

Work-based learning – *in primary care*

- Observation and practice of consultations caring for patients with endocrine or metabolic problems: interpretation of laboratory results: prescribing for disease with understanding of titrating dose of insulin as well as other hypoglycaemic agents; health education and prevention strategies; screening for metabolic disorders; keeping a diabetes register and extracting data from it for audit and recall purposes.
- Tutorials on clinical presentation, differential diagnosis, investigation and management of various endocrine or metabolic conditions.
- Interpretation of statistical data regarding antiplatelet therapy, ACE’s and use of lipid lowering drugs in diabetes with clear understanding of terms and their implications in treatment choice.
- Random case analysis of consultations with endocrine or metabolic conditions.
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – *in secondary care*

- Observation and practice of consultations caring for patients with endocrine or metabolic conditions.
- Interpretation of laboratory results: prescribing for disease with understanding of titrating dose of insulin as well as other hypoglycaemic agents; health education and prevention strategies; screening for metabolic disorders.
• Observation of management of patients recovering in hospital following acute emergencies as well as special needs of patients with endocrine or metabolic conditions undergoing surgery.
• Observation of instructional procedures involving administering insulin, with ability to clearly instruct a diabetic patient on correct procedure for self-administering of insulin, recognizing different types of insulin, insulin pens and know how to use a glucose meter.
• Observation of multidisciplinary approach and teamwork in caring for diabetic patients at the Diabetes clinic and in the various medical and surgical departments.
• Observation of different members of diabetic team interacting with the diabetic patient e.g. podologist, dietitian, ophthalmologist, diabetic nurse individually at the diabetes clinic or together during ward rounds.
• Tutorials on clinical presentation, differential diagnosis, investigation and management of various metabolic diseases especially type 1 & 2 diabetes, thyroid problems and hyperuricaemia with particular reference to cases based on in/outpatient encounters.
• Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

• Private study from textbooks, journals, current guidelines and internet resources.
• Interactive half-day release programme sessions about diabetes, thyroid problems and hyperlipidaemias. Tutorials and sessions involving peers and patients provide excellent teaching opportunities. They incorporate the relevant perspective of patients and their experience of the disease, providing for a better understanding of the illness and engaging the trainees on a more humane level. Topic areas that can be covered include diagnosis of diabetes, testing for prediabetes and diabetes, testing for type 2 diabetes in children, detection and diagnosis of gestational diabetes mellitus, prevention and delay of type 2 diabetes, self-monitoring of blood glucose levels, hemoglobin A$\text{1c}$ (A1C) levels, glycemic goals, insulin therapy and injection techniques, medical nutrition therapy (MNT), diabetes self-management education (DSME), physical activity, psychosocial assessment and care, hypoglycemia, sick day management, immunization, hypertension and blood pressure control, and dyslipidemia and lipid management.
• Attending conferences relating to endocrine and metabolic problems
• Learning in a multidisciplinary team during seminars, conferences organized by multiprofessionals
• Enrol as members in diabetes awareness and support groups: Malta Diabetes Association; Daisy (support group for youth with diabetes); participating in events organized by these groups to help foster awareness about diabetes and prevention strategies.
Formative Assessment

- Analysis of video recorded consultations with patients with endocrine and metabolic problems
- Mini-clinical examinations; e.g. checking feet of a diabetic patient, examination of the neck
- Directly Observed Procedures e.g. measuring BMI, checking capillary glucose, dipstick urinalysis, giving instructions on how to self-inject with insulin
- Analysis of Educational Portfolio
- Case-based discussions on consultations with patients with endocrine and metabolic problems
- Patient satisfaction questionnaire
- Multisource feedback

Reference Document used as a model:

Royal College of Family Doctors: 2007. Curriculum Statement No.15.6 – Metabolic Problems

References:

Further reading:


**Internet resources:**

- International Diabetes Federation A non-governmental organisation in official relations with the World Health Organization (WHO) and the Pan American Health Organization (PAHO). [www.idf.org/home/](http://www.idf.org/home/)
- [http://www.annfammed.org/cgi/content/full/4/1/32](http://www.annfammed.org/cgi/content/full/4/1/32)
Chapter 40.

Rheumatology and Musculoskeletal Problems

Author: Dr Daniel Sammut MD MMCFD

Date: 12th April, 2009

Reference Document:

RCGP Curriculum Statement No. 15.9 – Rheumatology and conditions of the Musculoskeletal System
Introduction

Rationale

Rheumatological and musculoskeletal problems are a very common in both primary and secondary health care. When considering the frequency of patients’ presenting symptoms encountered in Maltese general practice, muscle strain is the sixth most common. Other common conditions are back pain (with or without radiation), and sprains/strains of the ankle and knee joints.¹

The importance of biomechanical factors in the health of the musculoskeletal system has been more greatly appreciated in the last two decades. The intimate relationship of structure and function needs to be considered in the management of musculoskeletal injuries, especially in athletes. This is reflected in sophisticated computer-assisted investigative methods (e.g. gait analysis), and in simple principles of management (e.g. the use of orthoses in plantar fasciitis and in runner’s knee; continued physical activity in back pain). Hence, the best outcome necessitates a multidisciplinary approach involving early physiotherapy, and possibly the intervention of podologist, sports specialist or complementary therapist.

Acute low back pain is an extremely common complaint, with a one-month prevalence of 35-37%, extensive morbidity and great economic costs. The wide differential diagnosis for low back pain poses a challenge to the clinical and communicating skills of the family doctor. Back pain triage is the medical model of diagnosis to exclude serious pathology and, at the same time, identify clinical syndromes. History and examination are used to identify diseases of an inflammatory, neoplastic, infective or metabolic nature, in addition to specific causes of mechanical pain, symptomatic disc prolapse, spinal canal stenosis and spinal instability. The so-called ‘red flag’ symptoms and signs are indicators of serious pathology. A thorough examination will also serve to allay the patient’s fears. Unfortunately, studies have shown that up to 27% of GPs do not examine for limb reflexes when dealing with back pain, and the majority do not check for muscle weakness or sensation.²

Most musculoskeletal injuries do not require radiological investigation. In fact, local audits on the use of X-rays to investigate ankle sprains and head injuries in the Admitting and Emergency Department of the local government hospital have concluded that too many X-rays are taken, and that implementation of simple guidelines (e.g. the Ottawa Ankle Rule; the NICE head injury guidelines) would lead to drastic reductions in needless exposure to radiation and in expense.³,⁴

Nowadays, radiological investigation is not limited to plain X-rays, but can involve the use of ultrasound, computed tomography scanning, magnetic resonance
imaging and radioisotope bone scanning. All these methods have their own role in specific circumstances, but there is little point in requesting expensive investigations unless they will change management. The GP should endeavour to keep up-to-date with the latest evidence so as to be able to recommend the investigation that will give most information in the specific clinical context whilst being safe and cost-effective at the same time.

The musculoskeletal system is often involved in systemic disease (e.g. infective, autoimmune, neoplastic). The family doctor must examine the whole patient in order to pick up these conditions and provide the best treatment in good time. Blood investigations (e.g. serum calcium; ESR) are also useful to aid in the diagnosis of systemic disease.

Non-steroidal anti-inflammatory drugs and paracetamol are effective analgesics that are often used to treat musculoskeletal problems. NSAIDs are contraindicated in patients with hypersensitivity, peptic ulcer disease, asthma, inflammatory bowel disease and renal failure. While it was hoped that cyclo-oxygenase-2 (COX-2) selectivity would reduce gastrointestinal adverse drug reactions, there is little conclusive evidence that this is true. Harmful interaction of NSAIDs with other drugs precludes their use in most elderly patients, as does the presence of co-morbid disease. A recent meta-analysis of all trials comparing NSAIDs found that selective COX-2 inhibitors are associated with a moderate increase in the risk of vascular events (primarily myocardial infarction), as are high dose regimens of ibuprofen and diclofenac, but not high dose naproxen.\(^5\)

Use of NSAIDs (other than low-dose aspirin) in the previous week was associated with a doubling of the odds of a hospital admission with congestive heart failure (CHF). Furthermore, use of NSAIDs in patients with a history of heart disease was associated a 10-fold increase for first admission with heart failure. The odds of a first admission to a hospital with CHF was positively related to the dose of NSAID consumed in the previous week, and was increased to a greater extent with long half-life than with short half-life drugs. Therefore, NSAIDs should be used with caution in patients with cardiovascular disease.\(^6\)

Glucosamine and chondroitin supplements are a recent addition to the GP’s armamentarium in the treatment of osteoarthritis. A recent review found that the use of chondroitin and glucosamine in combination was significantly effective in reducing pain in moderate knee osteoarthritis, while significantly improving disability in mild-to-moderate cases. If the results are generalisable to all joints, this combination, in purified therapeutic doses, should help osteoarthritis patients safely and at moderate expense.\(^7\)

In the Needs Assessment carried out by the Curriculum Board with the trainees undergoing vocational training and their trainers, both groups responded that the following skills were very relevant to family medicine in Malta.\(^8,9\)

- interpretation of plain X-rays; bandaging; splinting
• reduction of dislocated finger; reduction of ‘pulled elbow’
• joint aspiration; joint injection
• neck immobilisation

(Application of plaster was deemed to be less relevant by both trainees and trainers). Therefore, the vocational training programme should provide opportunities for these skills to be taught and practised under supervision.

**Maltese health care priorities**

There is a huge burden of chronic rheumatological and musculoskeletal disease in the community, and this is bound to increase further in our ageing population. Osteoarthritis of the knee and hip causes a great impairment of quality of life by causing pain and hindering mobility. The family doctor must have the necessary knowledge and skills to diagnose and manage these conditions using evidence-based interventions, referring to other health professionals and secondary care when necessary.

The interior of the knee was first examined endoscopically in 1918 by Takagi in Tokyo. Since then, the purpose and use of arthroscopy has extended from diagnostic to therapeutic and from the knee to the shoulder, ankle, hip, elbow and wrist. This minimally invasive procedure allows for direct inspection of joints, and removal (e.g. knee menisci) or even repair/reconstruction of damaged tissue (e.g. cruciate ligament). All this can be achieved with little post-operative pain and more rapid rehabilitation.\(^{10}\)

Joint replacement (complete or partial) is able to donate new life to years in patients with chronic degenerative joint disease. In Malta, six knees are replaced for every hip replacement that is performed. The prevalence of knee degeneration may be due to the fact that obese patients carry an extra load that has to be carried by a more peripheral joint, the number of stairs in most households, the considerable number of hills, and the fact that a number of Maltese patients have a tibia vara with consequent overloading of the medial compartment of the knee. In order to address the needs of arthritic patients below 50 years of age who have a high level of physical activity and a strong determination not to give up their sporting commitments there has been a recent revival of surface replacement of the hip.\(^{10}\) GPs have an important role to play in educating about the importance of physical exercise and the control of body weight in the population, tailoring advice to the needs of the individual patient through an agreed management plan.

Rheumatoid arthritis (RA) is the most common form of inflammatory joint disease, and it affects females four times as much as males. One of the recent important discoveries in RA was that joint destruction, which is invariably preceded by synovitis, occurs early in the course of the disease, and within three years of
onset over two-thirds of patients show radiographic damage. Moreover, the life expectancy of these patients is shortened by an average of five years. This has led to a shift towards early diagnosis and treatment with effective disease-modifying medication to suppress inflammation as quickly and as completely as possible.\textsuperscript{11}

Tumour necrosis factor alpha (TNF-\(\alpha\)) and interleukin-1 have been identified as the major pro-inflammatory cytokines that, both directly and indirectly, lead to cartilage and joint damage that are the hallmark of RA.\textsuperscript{11} Initially licensed for use in RA, TNF-\(\alpha\) inhibitors have been subsequently approved for other inflammatory arthritides such as ankylosing spondylitis and psoriatic arthritis. Rituximab is a monoclonal antibody that binds to the protein CD20 on the surface of B-lymphocytes, and it has been shown to be effective in the treatment of RA, systemic lupus erythematosus and other connective tissue disorders. Rituximab and the TNF-\(\alpha\) inhibitors etanercept and infliximab are now being used locally with clinical success.\textsuperscript{12} Apart from being aware of these new treatments and their possible adverse effects, the GP should keep in mind that RA is a chronic disease that may have profound effects on the physical, psychological and social functioning of the individual and his/her family. Therefore, a holistic and multidisciplinary approach will give the best results.

\section*{Learning Outcomes}

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the musculoskeletal system. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

\textbf{By the end of the specialist training, the trainee is expected to:}

1. Manage primary care contact with any patient who presents with a musculoskeletal problem, adopting a patient-centred approach throughout.

2. Appreciate the importance of the social and psychological impact of musculoskeletal problems on the patient, his/her family, friends, dependants and employers.

3. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion towards patients with chronic or terminal illness.

4. Ask all patients about exercise habits, identify health beliefs regarding exercise, and either challenge or reinforce these as appropriate. Ensure that
personal opinion does not prejudice clinical management. Offer non-judgemental advice and help the willing patient to introduce regular exercise tailored to his/her needs and abilities.

5. Perform a complete examination of the musculoskeletal system.

6. Demonstrate knowledge of the relative prevalence of musculoskeletal problems in the local community to assist diagnosis.

7. Recognize particular groups of patients at higher risk of musculoskeletal problems, e.g. athletes, post-menopausal women.

8. Explain the aetiology and natural history of common and important musculoskeletal conditions.


10. Apply sound evidence-based criteria to assess severity of musculoskeletal disease, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

11. Intervene urgently when patients present with an emergency, e.g. sprain, fracture, dislocation, etc…

12. Describe the ‘red flag’ symptoms and signs that point to malignancy.

13. Explain how the musculoskeletal system may be involved in systemic disease.


15. Explain the role of radiological and blood investigations in the diagnosis of musculoskeletal disease. Interpret results properly in the clinical context.

16. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from musculoskeletal disease, particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable and help them function at the highest level possible.

17. Consider biomechanical factors that may be impairing healing and address them.

18. Assess the likelihood of an occupational cause for musculoskeletal problems (e.g. back pain; repetitive strain injury) and make appropriate recommendations.
19. Recognise that fractures due to osteoporosis cause great morbidity, expense and sometimes mortality. Recommend appropriate calcium and vitamin D supplementation in all post-menopausal women. Screen patients at risk for osteoporosis (e.g. women over 65 yrs).

20. Show wide knowledge on the pharmacological treatment options for musculoskeletal and rheumatological disease. Demonstrate a consistent, evidence-based approach in prescribing NSAIDs, other analgesics, muscle relaxants and glucocorticoids. List the indications, usual dosage regimens and common adverse effects of each drug class.

21. Explain and illustrate how to aspirate and/or inject a joint.

22. Coordinate care with other health care professionals, such as orthopaedic surgeon, neurosurgeon, rheumatologist, nurse, physiotherapist, occupational therapist, pharmacist and complementary therapist to enable chronic disease management and rehabilitation.

23. Communicate truthfully and sensitively to patients for whom therapeutic options have been exhausted, and share uncertainty when the patient wants this.

24. Harness the help of the patient’s social support network and voluntary organizations in the management of chronic rheumatological or musculoskeletal disease.

25. Assess the possibility that musculoskeletal symptoms can be due to psychological causes (somatisation).

26. Avoid unnecessary investigation that is unlikely to influence management, for safety reasons (e.g. irradiation), for cost-containment, and to prevent generating undue anxiety in the patient.

27. Provide adequate information for informed consent before any procedure is undertaken.

28. Recognise the emotional impact that dealing with trauma and disability can have on the GP.
Knowledge base

Symptoms:
- Inflammation – pain, swelling, erythema, warmth
- Lack of function – weakness, restricted movement, deformity and disability
- Injuries – cuts, bruises, wounds
- Systemic manifestations – rashes, tiredness, weight loss, nerve compression, etc.

Common and/or important conditions:
- Acute back/neck pain
- Chronic back/neck pain – mechanical, nerve root, other
- Shoulder – rotator cuff problems, bursitis, arthritis, adhesive capsulitis
- Elbow – epicondylitis, tendonitis, bursitis, arthritis, ulnar nerve entrapment
- Wrist – sprain, tenosynovitis, arthritis, ganglion, carpal tunnel syndrome
- Hand – tenosynovitis, contractures, trigger finger, mallet finger, arthritis, CTS
- Hip – congenital dislocation, bursitis, arthritis, fascia lata syndrome, groin pain in athletes, avascular necrosis, sacroilitis, Paget’s disease, enthesitis, slipped upper femoral epiphysis
- Knee – arthritis, patellofemoral disorders, patellar subluxation/dislocation, tendonitis, ligament strain.tear, meniscal tears, loose bodies, Baker’s cyst, Osgood-Schlatter’s disease, Paget’s disease
- Ankle – sprains/strains, tendonitis, bursitis, arthritis
- Foot – tendonitis, plantar fasciitis, pes planus, pes cavus, metatarsalgia, hammer toe, hallux valgus
- Bone disease - osteomalacia, osteoporosis, osteomyelitis, Paget’s disease, tumours (primary and secondary), rare diseases e.g. osteogenesis imperfecta
- Osteoarthritis
- Gout and pseudogout
- Inflammatory arthropathies - rheumatoid arthritis, ankylosing spondylitis, psoriatic arthropathy, reactive arthritis
- Connective-tissue disease - systemic lupus erythematosus, systemic sclerosis, dermatomyositis/polymyositis
- Vasculitides - polymyalgia rheumatica and giant cell arteritis, Raynaud’s syndrome, polyarteritis nodosa
- Somatisation
- Fibromyalgia
- Over-training syndrome
- Idiopathic costochondritis
- Chronic fatigue syndrome
- Chronic disability
Investigation:
- Indications for plain radiography, ultrasound, CT and MRI scan including the use of tools such as the ‘Ottawa Rules’
- General rules of X-ray interpretation
- Implications of ‘Misses’ on X-rays, common errors
- Indications for additional investigations, for example blood tests.

Treatment:
- Understand the principles of treatment for common conditions managed largely in primary care including the use and monitoring of NSAIDs and disease-modifying drugs
- Knowledge of when joint injections and aspirations are appropriate in general practice e.g. shoulder and knee joints and injections for tennis and golfer’s elbow
- Understand the roles of allied health professionals (nursing, physiotherapy, orthoses expert, podology, occupational therapy, counselling and psychological services)
- Chronic disease management including systems of care, multidisciplinary teamwork and shared-care arrangements.

Emergency care:
- The initial management of sprains, acute joint swelling, dislocations and fractures
- Analgesia

Prevention:
- Advise regarding appropriate levels of exercise
- Heath promotion regarding accident prevention.

Psychomotor Skills

- Bandaging and splinting
- Joint aspiration
- Joint injection
- Neck immobilisation
Relevant Guidelines:

- Physical Activity: a guide for professionals  
  (Health Promotion and Disease Prevention Dept.)
- Increasing Physical Activity  
  (NICE, WONCA)
- Falls- the assessment and prevention of falls in older people  
  (NICE)
- Management of acute low back pain  
  (RCGP)
- Knee osteoarthritis: management options  
  (Primary Care Rheumatology Society)
- Management of rheumatoid arthritis (the first two years)  
  (British Society for Rheumatology, British Health Professionals in Rheumatology)
- Primary care treatment and management of chronic osteoarthritic pain  
  (Working Party, UK)
- Management of Gout  
  (British Society for Rheumatology, British Health Professionals in Rheumatology)
- European guidance for the diagnosis and management of osteoporosis in postmenopausal women  
  (European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis)
- Osteoporosis – prevention and treatment  
  (NICE, RCP, Bone & Tooth Society of Great Britain, SIGN)
- Prevention and treatment of glucocorticoid-induced osteoporosis  
  (RCP, National Osteoporosis Society, Bone & Tooth Society of Great Britain)
- Referral guidelines for suspected cancer  
  (NICE)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a good history, examination of the musculoskeletal system; formulating a differential diagnosis; ordering and interpreting plain X-rays and blood tests; negotiating a management plan with the patient; prescribing for musculoskeletal disease; bandaging and splinting; joint aspiration and injection technique; advising about exercise and prevention of injury; screening and treating for osteoporosis; referring to allied professions and secondary care when indicated

- Tutorials on principles of musculoskeletal and rheumatological disease epidemiology; clinical presentation; differential diagnosis; investigation; and management

- Random case analysis of consultations for a musculoskeletal condition

- Analysis of video recorded consultations for a musculoskeletal condition

- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as taking a good history, examination of the musculoskeletal system; formulating a differential diagnosis; ordering and interpreting plain X-rays and blood tests; negotiating a management plan with the patient; prescribing for musculoskeletal disease; bandaging and splinting; joint aspiration and injection technique; observing plaster application; observing surgery, hospital care and aftercare; management of complex cases in secondary care

- Observation of multidisciplinary approach and teamwork

- Tutorials on principles of musculoskeletal and rheumatological disease epidemiology; clinical presentation; differential diagnosis; investigation; and management

- Using Educational Portfolio to record learning points and reflections.
Other learning opportunities:

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about musculoskeletal and rheumatological conditions
- Conferences and courses (both local and international) dealing with musculoskeletal and rheumatological conditions
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with rheumatologists, orthopaedic surgeons, radiologists, nurses, pharmacists, physiotherapists, occupational therapists, complementary therapists etc…

Formative Assessment

- Analysis of video recorded consultations for a musculoskeletal condition
- Mini-clinical examination e.g. examination of the back, the hand, the knee
- Directly observed procedures e.g. bandaging, joint injection
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations for a musculoskeletal condition
- Patient Satisfaction Questionnaire
- Multisource feedback.
References:


Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.9 – Rheumatology and conditions of the Musculoskeletal System (including Trauma)*

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Further Reading:


Internet Resources:

- American Family Physician (series of downloadable articles on joint and soft tissue injection) www.aafp.org/afp
- Arthritis care: www.arthritisicare.org.uk
- Arthritis Research Campaign: www.arc.org.uk
- Clinical Evidence: www.clinicalevidence.com/ceweb/conditions/msd/msd.jsp
- MOVE: making osteoarthritis matter www.move.uk.net
- National Institute for Health and Clinical Excellence: www.nice.org.uk/
- National Osteoporosis Society: www.nos.org.uk
- Primary Care Rheumatology Society: www.pcrsociety.org.uk/
- International Guidelines updated regularly at: www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 41.

Renal and Urological Disease

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Introduction

Rationale

Urinary tract infection (UTI) is common. 20 to 40% of women will have a UTI in their lifetime. Half of women who have symptoms of cystitis have negative bacteriological culture, and are said to have the ‘urethral syndrome’. Routine urine culture is unnecessary in adult non-pregnant women with symptoms of uncomplicated cystitis. The family doctor should enquire about presenting symptoms, and then use dipstick urine tests and clinical judgement to decide whether antibiotic use is warranted. On the other hand, pregnant women should be investigated to exclude asymptomatic bacteriuria at their first antenatal visit, because this is associated with pyelonephritis and premature delivery. Naturally, if a UTI is suspected in a pregnant woman, it should be investigated and treated early.¹

In men, UTIs are very uncommon, and they are usually associated with predisposing factors. These factors include diabetes mellitus, urinary obstruction (e.g. benign prostatic hypertrophy) or genito-urinary malformations. Therefore, a suspected UTI in an adult male should always be investigated with urine tests and possibly with radiology.¹

UTIs occur in 3 to 6% of children 2 months to 2 year of age. The female:ma
te ratio rises with age, being about 2:1 between 2 months to 1 year, 4:1 during the 2nd year, and > 5:1 after 4 years. In girls, infections usually are ascending and less often cause bacteraemia. The marked female preponderance is attributed to the shorter female urethra; male circumcision may decrease boys’ risks. Other predisposing factors for UTI in children include indwelling catheters, constipation, Hirschsprung’s disease, and anatomic abnormalities of the urinary tract. Risk factors in older children include diabetes, trauma, and, in adolescents, sexual intercourse.²

UTIs in children should also be handled with caution. Firstly, they are often difficult to diagnose in infants and toddlers because they may present with atypical symptoms such as malaise, vomiting, failure to thrive, dehydration or isolated fever.

Secondly, UTIs in children are a marker of possible urinary tract abnormalities (e.g., obstruction, neurogenic bladder, ureteral duplication); these are particularly likely to result in infection if vesico-ureteric reflux (VUR) is present. The likelihood of VUR varies inversely with age at the 1st UTI. About 30 to 40% of infants and toddlers with UTI have VUR. Severity of reflux may determine the probability of subsequent hypertension and renal failure (caused by repeated infection), but proof is lacking. VUR is classified by grade. Reflux of infected urine into the renal pelvis or presence of infected urine behind an obstruction can lead to chronic
pyelonephritis, renal scarring, poor kidney growth, and renal failure. Hence, young children who have a suspected UTI should be referred to secondary care for investigation. 

Asymptomatic bacteriuria is very frequent in the elderly and in catheterized patients, and it is not related to increased morbidity and mortality. Therefore, investigation and treatment of this condition will only lead to useless costs and side-effects. Urine samples for culture and antimicrobial sensitivity should only be taken if there are at least two signs of infection, especially dysuria, pyrexia >38°C or new incontinence.

GPs need to be aware of the pitfalls in the use of urine culture for the diagnosis of UTI, including:
- poor technique in collection of sample (particularly children and the elderly) and contamination with perineal bacterial flora
- delay in taking the sample to the laboratory and bacterial overgrowth
- sterile pyuria (Chlamydia trachomatis should be considered if the patient is sexually active)

**Maltese health care priorities**

Renal stones are common, particularly during the Maltese hot summer months, because of inadequate fluid intake. Patients often present with excruciating renal colic, and the GP should intervene immediately with strong analgesia (often parenteral) and advice to increase fluid intake. Thereafter, the doctor should discuss the natural history of urolithiasis, and balance the chances of spontaneous passage of the stone with the potential risk for obstructive nephropathy.

In the past, the standard radiological technique used for detecting urinary tract stones was the intravenous urogram. Limitations of this technique, however, include non-radiologically opaque stones (15%), the use of potentially nephrotoxic contrast material (particularly so in diabetics and patients with renal impairment), and poor visualization in obese patients and those with abundant intestinal gas. During the past decade, unenhanced spiral computed tomography has become the standard of reference in the detection of urinary calculi because it is safe, rapid, does not need bowel cleansing, and has >95% sensitivity and >98% specificity in this setting.

Chronic kidney disease (CKD) is defined as a persistent impairment of renal function (glomerular filtration rate<90 ml/min/1.73m2) with other evidence of chronic kidney damage. CKD can have a varied aetiology, but diabetic nephropathy and hypertension are the most common and controllable causes in developed countries. Microalbuminuria (30-300mg/day) is the earliest indicator of
diabetic kidney disease. It may revert to normoalbuminuria, persist, or progress to proteinuria (>300mg/day). The Diabetes Control and Complications Trial showed that intensive insulin therapy in Type I diabetes reduced the occurrence of microalbuminuria by 39% and that of albuminuria by 54%.\textsuperscript{4} In type 2 diabetic patients with renal insufficiency/failure, hypoalbuminaemia, anaemia, hypertension, and lack of insulin therapy are significant independent predictors for rapid progression of renal failure, and the use of insulin therapy may be an indicator of delay in the progression.\textsuperscript{5}

Inhibition of the renin-angiotensin system by direct renin inhibitors, angiotensin-converting enzyme inhibitors (ACEI) or angiotensin II receptor blockers (ARB) (and combinations of these) have all been shown to reduce proteinuria and protect against kidney disease in diabetics. However, case reports have demonstrated that renal failure can occur secondary to administration of an ACE inhibitor or ARB in patients with bilateral renal artery stenosis \textsuperscript{6}, and it may potentially also occur with direct renin inhibitors. Therefore, serum creatinine and potassium levels should be checked prior to initiating these drugs, within two weeks of starting, and within two weeks after subsequent increases in dose; during severe undercurrent illness, particularly if there is a risk of hypovolaemia; and at least at annual intervals thereafter. A rise of serum creatinine concentration of >20% or fall in estimated GFR of >15% after initiation or dose increase should be followed by further measurements within two weeks; if deterioration in kidney function is confirmed, a specialist opinion should be sought. Hyperkalaemia (>6.0 mmol/L) should result in stopping of concomitant nephrotoxic drugs (e.g. NSAIDs), reduction or cessation of potassium-retaining diuretics (amiloride, triamterene, spironolactone), and reduction of loop diuretic dosage if there is no sign of congestion. If hyperkalaemia persists, the ACEI or ARB should be stopped.\textsuperscript{7}

The kidneys are frequently damaged by drugs and by multisystem disease (e.g. atherosclerosis, vasculitis, amyloidosis, multiple myeloma). CKD often has an insidious onset, especially in the elderly. Early signs include pruritus, nausea, lethargy and impotence, with oedema and uraemia developing later. Family doctors should be careful to identify these cases and investigate renal function. Complications of renal failure include hypertension, renal osteodystrophy, anaemia, and hypocalcaemia. Many drugs are either contra-indicated in renal failure or their dose should be adjusted. In the complicated management of patients with CKD, the family doctor should liaise closely with the nephrologist, dialysis nurse, dietitian and pharmacist.

In the Maltese islands, bladder cancer is the sixth most common cancer (excluding non-melanocytic skin cancer) and it is four times more frequent in males. Cancer of the urinary bladder is also the tenth most common cause of cancer death. Early cystoscopic investigation of painless haematuria can lead to complete excision and cure. Cancer of the kidney ranks as the twelfth most common cancer in Malta, with a male:female ratio of 2:1.\textsuperscript{8} GPs should be alert
for ‘red flag symptoms’ such as painless macroscopic haematuria, unexplained microscopic haematuria in patients over 50, recurrent or persistent UTI with haematuria and abdominal mass, in order to refer these cases urgently for investigation and secondary care. Tobacco is a recognised risk factor for these malignancies, and family doctors should always encourage and support smoking cessation.

Male genital disease is considered in Chapter 32 – Men’s Health.

Learning Outcomes

The following learning objectives relate specifically to the family doctor’s role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the urinary tract. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with a renal or urological problem, adopting a patient-centred approach.

2. Appreciate the importance of the social and psychological impact of renal or urological problems on the patient, his/her family, friends, dependants and employers.

3. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic or terminal illness.

4. Promote smoking cessation and adequate fluid intake to prevent renal and urological disease.

5. Perform a complete examination of the urinary system.

6. Demonstrate knowledge of the relative prevalence of renal and urological problems in the local community to assist diagnosis.

7. Explain how to interpret the urine dipstick test in the clinical context.

8. Explain how to collect a mid-stream specimen of urine. Explain why rapid delivery to the laboratory or refrigeration is important.
9. Explain the indications for urine bacteriological culture. Explain how to interpret the result, and possible pitfalls.

10. Recognise that urinary tract infections are very common in women, and that uncomplicated cystitis in the non-pregnant female can be treated on the basis of dipstick result only.

11. Appreciate the importance of detecting asymptomatic bacteriuria in pregnant women and its early treatment.

12. Explain why suspected UTI in males and children should always be investigated by urine culture and possibly radiology.

13. Appreciate that asymptomatic bacteriuria in the elderly, diabetic women or catheterized patients does not warrant investigation or treatment.

14. Recognise particular groups of patients at higher risk of acquiring a severe urinary tract infection, e.g. extremes of age, those with other underlying pathology, pregnant women and diabetics.

15. Recognise that the kidneys are frequently damaged by multisystem disease such as atherosclerosis, vasculitis, multiple myeloma and amyloidosis.

16. Appreciate that diabetes and hypertension are the most common and controllable causes of chronic kidney disease. Explain the importance of microalbuminuria, and how it’s measured and monitored.

17. Apply sound evidence-based criteria to assess severity of renal or urological disease, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

18. Intervene urgently when patients present with a renal or urinary emergency, e.g. renal colic, urinary retention, acute renal failure, etc…

19. Recognize that haematuria may have several causes, and that it may be the only symptom of urological malignancy. Refer patients with persistent painless haematuria to secondary care for further investigation.

20. Demonstrate an evidence-based approach towards investigation and management of renal and urological problems.

21. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from renal or urological disease, particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable.
22. Show wide knowledge on the pharmacological treatment options for renal and urological disease. Demonstrate a consistent, evidence-based approach to drug prescribing for UTIs.

23. List commonly used drugs that may be nephrotoxic (e.g. NSAIDs; aminoglycosides) and those drugs that need dose adjustment in the presence of chronic kidney disease.

24. Recognise that diuresis can be very inconvenient for the patient, and may lead to incontinence. Avoid giving diuretics at night.

25. Describe the precautions to be taken when prescribing ACEIs, ARBs or direct renin inhibitors to monitor renal function, because of possible bilateral renal artery stenosis.

26. Explain the indications for catheterization. Perform catheterization of the adult using an aseptic technique.

27. Coordinate care with other health care professionals, such as nephrologist, urologist, other medical specialists, dialysis nurse, practice nurse, community nurse and pharmacist to enable chronic disease management and rehabilitation.

Knowledge base

Symptoms:
Dysuria, frequency of micturition, incontinence, retention, haematuria, fever, loin pain, colic, strangury, pruritus, nausea, vomiting, oedema, anaemia, oliguria, uraemia, abdominal mass.

Common and/or important conditions:
- UTI: cystitis, pyelonephritis
- Urolithiasis
- Acute and chronic renal failure: pre-renal, renal, obstructive
- Nephrotic syndrome
- Nephritic syndrome
- Diabetic nephropathy
- Hypertensive nephropathy
- Polycystic kidney disease
- Congenital malformations: double ureter, urethral valves, horseshoe kidney
- Vesico-ureteric reflux
- Urinary incontinence: stress, urge, overflow
- Renal and urological cancer.
Investigation:
- Dipstick urinalysis
- Urine bacteriological culture
- Serum creatinine, creatinine clearance, e-GFR, urea, cell blood count
- Knowledge of secondary-care investigations including ultrasound, intravenous urography, micturating cysto-urethrogram, computerized tomography, magnetic resonance imaging, cystoscopy and renal biopsy.

Treatment:
- Understand principles of treatment for common conditions managed largely in primary care: cystitis, renal colic, urge incontinence
- Appreciate that many drugs can cause renal damage
- Understand the principles of specialist treatment for chronic kidney disease and malignancy.

Emergency care:
- Acute management of people presenting with renal colic; urinary retention
- Understand indications for emergency referral of people with nephrotic syndrome, nephritic syndrome, pyelonephritis, perinephric abscess, acute renal failure.

Prevention:
- Smoking cessation assessment, advice and management
- Adequate fluid intake
- Good control of diabetes and hypertension
- Health education advice and patient self-management plans for people with recurrent UTIs, chronic kidney disease and incontinence
- Family history of polycystic kidney disease

**Relevant Guidelines:**

- *The management of urinary and male genital tract infections*  
  (European Association of Urology)
- *Diagnosis of urinary tract infection – quick reference guide*  
  (Health Protection Agency, UK)
- *The management of urinary incontinence in women*  
  (NICE)
- *Chronic kidney disease in adults. UK guidelines for identification, management and referral*  
  (Joint Specialty Committee on Renal Medicine of the RCP and the Renal Association)
- Clinical practice guidelines for the care of patients with chronic kidney disease (UK Renal Association)
- Chronic kidney disease and automatic reporting of estimated glomerular filtration rate: a position statement (The Australasian Creatinine Consensus Working Group)
- Referral guidelines for suspected cancer (NICE)

Teaching and learning resources

Work-based learning – in primary care
- Observation and practice of skills such as taking a good history; examination of the renal and urinary tract; performing dipstick urinalysis; formulating a differential diagnosis; requesting laboratory investigations and interpreting results; negotiating a management plan; prescribing for renal and urological disease; referring appropriately to secondary care and liaising with other health carers
- Tutorials on principles of renal and urological disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
- Random case analysis of consultations for a renal or urological condition.
- Analysis of video recorded consultations for a renal or urological condition
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care
- Observation and practice of skills such as taking a good history; examination of the renal and urinary tract; performing dipstick urinalysis; formulating a differential diagnosis; requesting laboratory and radiology investigations and interpreting results; negotiating a management plan; prescribing for renal and urological disease; observing management of complex cases; adopting a multidisciplinary approach
- Observation of procedures and investigations carried out at the Renal Unit, with gaining of insight to the change in quality of life and special needs for those depending on dialysis
- Tutorials on principles of renal and urological disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
• Using Educational Portfolio to record learning points and reflections.

**Other learning opportunities**

• Private study of GP textbooks, current guidelines, BNF, journals and internet resources
• Interactive half-day release programme sessions about renal and urological conditions.
• Educational visit to the Renal Unit
• Conferences and courses (both local and international) dealing with renal and urological pathology
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with nephrologists, urologists, other medical specialists, nurses, pharmacists, etc…

**Formative Assessment**

• Analysis of video recorded consultations for a renal or urological condition
• Mini-clinical examination e.g. examination of the renal and urinary tract
• Directly observed procedures e.g. catheterisation
• Case-Based Discussion on consultations for a renal or urological condition
• Analysis of Educational Portfolio

**References:**

2. Merck Manual online:
   www.merck.com/mmpe/print/sec19/ch280/ch280e.html
4. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes


**Further Reading**


**Internet Resources:**

- UK National Kidney Federation: www.kidney.org.uk
- The Continence Foundation: www.continence-foundation.org.uk
- International Guidelines: www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 42.

Infectious Disease

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Introduction

Rationale

Infectious diseases that affect one particular system are described in more detail in other sections of this curriculum (e.g. enteritis and hepatitis in Chapter 37 – Digestive Tract Problems; STIs in Chapter 45 – Sexual Health). The scope of this chapter is to introduce general concepts relating to infectious disease, and to include systemic infections such as typhoid, typhus, measles, malaria, HIV and related infections.

Infectious diseases are still the leading cause of morbidity and mortality worldwide, with tuberculosis, lower respiratory infections, enteritis, HIV and malaria being the worst killers.¹ In Europe and Malta the morbidity and mortality from infectious disease have been steadily decreasing in the last 150 years. The first positive step taken in the last century was the improvement of general sanitation and the household supply of chlorinated water.

The advent of routine immunisation has had a tremendous impact on the incidence of serious infections, globally eradicating smallpox, and greatly reducing the incidence of poliomyelitis, diphtheria, tetanus, haemophilus influenzae B disease, pertussis, measles, mumps, rubella and tuberculosis. These vaccines are included in the Maltese National Immunisation Schedule and are administered for free at the Government Health Centres.² Some patients prefer to visit their private GP for vaccination. Hence, the family doctor should be well-versed in the immunisation schedule, and be familiar with other vaccines available only on the private market (e.g. rotavirus; heptavalent and 23-valent pneumococcal; varicella-zoster virus; human papilloma virus).

The first available antibiotics were sulphonamides and penicillin in the 1940s. Antimicrobial resistance was not known at the time. According to the European Centre for Disease Prevention and Control, the most important disease threat in Europe is from micro-organisms that have become resistant to antibiotics. As far back as 2000, the World Health Organisation was calling for a massive effort to address the problem of antimicrobial resistance to prevent the "health catastrophe of tomorrow".¹

The ability of bacteria, viruses, fungi, protozoa, helminths and prions to cause infection is a balance between inoculum size, virulence and adequacy of host defenses. Although antimicrobial therapy can augment host defenses and prevent/control infection, prescribing errors are common and they include treatment of colonization, suboptimal empiric treatment, inappropriate combination therapy, dosing and duration errors, and mismanagement of apparent treatment failure. Inadequate consideration of antibiotic resistance
potential, tissue penetration, drug interactions, side effects and cost, also limits the effectiveness of antimicrobial therapy.3

Certain sectors of the population are at an increased risk from certain infections due to their:
- origin (e.g. malaria in asylum seekers)
- genetic make-up (e.g. hereditary immunodeficiency syndromes)
- age (e.g. head-lice and threadworms in school children)
- living conditions (e.g. gastroenteritis in institutions)
- diet (e.g. brucellosis)
- behaviour (e.g. Hepatitis B in intravenous substance abusers)
- occupation (e.g. leptospirosis in sewer workers)

Infectious disease may have profound detrimental physical, psychological and social effects on the patient, particularly if life-threatening (e.g. meningococcaemia), chronic in nature (e.g. TB), disfiguring (e.g. leprosy), or incurable (e.g. HIV). The psychological damage may include inability to accept disfigurement or impaired function, isolation and depression. The social effects may be due to loss of employment, impaired education, inability to get life/health insurance, relationship problems, or other social isolation.

The influx of asylum seekers from African states to our shores in recent years brings new challenges to family medicine in Malta. These people come from countries where the incidence of certain chronic infections (e.g. TB, malaria, HIV) are much higher than locally. They also have different cultures, health beliefs, languages, and often live in sub-standard housing on poor income. The Maltese GP needs to adapt to this reality in his/her patient community.

Travel to ‘exotic’ countries has become more popular in recent years. This requires the family doctor to have access to up-to-date information about the risks for infectious disease inherent in traveling to a particular country; to be able to give reliable advice (and preferably give patient information leaflets) as to how to prevent such infections; and to be able to give appropriate and timely immunizations.

**Maltese health care priorities**

Data published in the European Antimicrobial Resistance Surveillance System 2005 Annual Report, highlights that for the sixth year running, Methicillin resistant Staphylococcus aureus (MRSA) prevalence was rising consistently across Europe, with Malta being the worst affected with more than 45% of *Staphylococcus aureus* isolates from blood cultures being methicillin resistant. In addition, there is evidence of an ever increasing prevalence of community MRSA. Several factors undoubtedly play a role in the local endemicity of MRSA.
Antibiotic consumption is recognised as a major driver of resistance. Furthermore, studies of hand hygiene compliance, a cornerstone of nosocomial infection prevention, suggest a need for major improvement. Moreover, a study on the local prevalence of drug-resistant Streptococcus pneumoniae (DRSP) between 2000 and 2002 found that 31% of isolates were resistant to erythromycin, 27% had intermediate penicillin resistance, and 19% were clindamycin resistant. These results are worrying.

It is unfortunate that in Malta there is a high percentage of misuse of antibiotics. Such misuse is rampant all over the world, partly due to the illegal selling of these drugs over the counter (OTC) with self-administration by patients. Self-medication with leftover medicines is also commonplace. Another problem is over-prescription of antimicrobials by medical professionals for illnesses of viral aetiology or even as prophylaxis. Many Maltese patients expect to be given antibiotics when they visit their GP for a common cold or influenza. The GP should be politely assertive in this situation and take the opportunity to educate the patient about the short- and long-term dangers and costs of antibiotic misuse. Doctors and pharmacists should cooperate closely in this field. The National Antibiotic Committee has recently organized a national educational campaign on the proper use of antibiotics, including the distribution of patient information leaflets.

Family doctors treat most infections on a ‘best guess’ basis without carrying out microbiological investigations. Although this is done for practical reasons, there are situations where investigation is mandatory. Examples are urinary tract infections in children and men, resistant or relapsing infections and severe infections.

The Infectious Disease Prevention and Control Unit (formerly Disease Surveillance Unit) of the Department of Public Health is the national surveillance centre for communicable diseases in Malta and it was set up in 1990. It is responsible for the surveillance, control and prevention of communicable diseases in Malta. It also has the objective of providing relevant information to doctors and the general public.

Sixty-seven specified communicable diseases are statutory notifiable, including priority communicable diseases as well as syndromes and health conditions such as congenital rubella, acute flaccid paralysis and antimicrobial resistance. Notification is mandatory by law to all doctors in both public and private sectors. Details of patients and disease are sent via The Infectious Disease Certificate by postal mail or fax to the Infectious Disease Prevention and Control Unit on behalf of the Superintendent of Public Health. Notifications may also be received via Synapse Direct, which is a secure on-line system (for more information see www.thesynapse.net). For urgent notifications, a 24-hour on-call service operates via the Mater Dei Hospital switchboard. Medical doctors are continually
encouraged to notify communicable diseases since the system relies substantially on such notifications.\textsuperscript{6}

GP have an essential role in notification of communicable diseases. A survey was carried out to assess GPs’ awareness of and attitudes towards the notification system in Malta, with special focus on infectious intestinal disease. A questionnaire collecting demographic data, information on reporting practices, opinions on the existing notification system and suggestions for improvement was sent to 256 GPs working in either private or public health sector. In all, 150 GPs took part in the survey (response rate 58.6%). The responses revealed that Maltese GPs were aware of their obligations to notify communicable diseases but often did not report them, relying on the hospitals or laboratories to do so. The Infection Disease Prevention and Control Unit website and medical school training were the main sources of information on notification. Notification forms were obtained from health centres and usually kept at the place of work. Most GPs reported filling in the forms during the patients’ visits. Private GPs tended to notify earlier than GPs working in public health centers.\textsuperscript{7}

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of infectious disease. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care consultations with any patient presenting with symptoms and signs of infectious disease.

2. Recognise that certain sectors of the population may be at an increased risk from infection due to their origin, genetic make-up, age, living conditions, diet, behaviour, occupation, etc…

3. Take a careful history of the symptoms experienced by the patient, and his/her ideas, fears, concerns and expectations relating to his illness and its treatment.

4. Perform a general physical examination to elicit signs of infection.

5. Diagnose and manage patients with infectious disease, providing prompt treatment for straightforward conditions and referring more complex/severe cases for investigation or secondary care.
6. Describe how to investigate infectious disease via the use of specimens for microscopy, microbiological culture and serological tests. Explain how to interpret the results of these investigations.

7. Intervene urgently in cases of septicaemia, septic shock or other serious infection.

8. Know the natural history of infectious disease so as to give appropriate health advice, and certification for absence from school or work.

9. Give appropriate advice on how to contain the spread of infectious disease such as hand-hygiene, covering mouth when sneezing, quarantine, and treating diseased pets. Appreciate the importance of personal hygiene and food hygiene, and give correct advice.

10. Keep in mind that the vast majority of infections seen by the GP are of viral aetiology and affect the respiratory and digestive tracts. Refrain from prescribing antibiotics for these infections, being politely assertive with the patient and his/her family. Take the opportunity to educate about the proper use of antimicrobials and the dangers and costs of misuse.

11. Be familiar with the commonly used anti-bacterial, anti-viral, anti-fungal, antiprotozoal, anti-helminthic and anti-arthropod drugs used in Maltese general practice and list their indications, contra-indications, interactions and possible undesired effects.

12. Describe local patterns of bacterial resistance to antibiotics (e.g. MRSA; DRSP)

13. Ask the patient and/or relatives, and consult medical records (if available) to exclude previously known drug hypersensitivity or other adverse drug reactions before prescribing.

14. Discuss the diagnosis, prognosis, risk of infectivity, treatment options and possible adverse effects with the patient (and his/her family if appropriate) so as to negotiate a suitable management plan. Encourage questioning by the patient and encourage the patient to access further information and patient support groups.

15. Describe the usual recommended mode of delivery, dosage regimen and duration of treatment for a specific infection in a particular patient depending on severity of infection, age, weight, co-morbidity, co-medication etc...

16. Describe when it is advantageous to combine antibiotics, and which classes are synergistic.
17. Describe the possible reasons for apparent antimicrobial failure, and how to proceed from there.

18. Appreciate that infectious disease may have profound detrimental physical, psychological and social effects on the patient, particularly if life-threatening, chronic in nature, disfiguring, or incurable. Take a holistic approach to the patient by assessing the psychological and social dimensions of disease on him/her and his family and intervene to help, possibly referring to support groups, social workers, counsellors or psychologists.

19. Describe the National Immunisation Schedule and other optional immunizations available on the private market, and their dosage schedules, contra-indications, and possible adverse effects. Encourage uptake of these immunizations, and administer them as necessary. Evaluate the cost-effectiveness of certain optional immunizations (e.g. varicella-zoster, rotavirus vaccines) for the individual patient.

20. Provide sound advice, appropriate and timely immunizations, and effective prophylaxis (e.g. for malaria) to patients who intend to travel to countries where there is risk of infection. Access up-to-date information relating to travel health either from the National Immunisation Section of the Primary Health Care Dept. or else from websites such as that of the Centers for Disease Control and Prevention: http://www.cdc.gov/travel/default.aspx.

21. Notify the following conditions to the Infectious Disease Prevention and Control Unit, doing so urgently when there is a risk of spread of serious infection:

AIDS, acute encephalitis; acute flaccid paralysis; anthrax; antimicrobial resistance; bacterial meningitis; botulism; brucellosis; campylobacteriosis; chickenpox/shingles; chlamydia infection; cholera; congenital rubella syndrome; cryptosporidiosis; dengue fever; diphtheria; dysentery (amoebic and bacillary); echinococcosis; erysipelas; E.coli (Enterohaemorrhagic); food-borne illness; giardiasis; gonococcal infection; granular conjunctivitis/trachoma; haemophilus influenza group B; hepatitis A; hepatitis B; hepatitis C; HIV infection; influenza; legionellosis; leishmaniasis; leprosy; leptospirosis; listeriosis; louse borne relapsing fever; malaria; measles; meningococcal disease; mumps; nosocomial infection; pertussis, plague, pneumococcal infection; pneumonia; poliomyelitis; puerperal fever; Q-fever; rabies; rubella; salmonellosis; scarlet fever; SARS; shigellosis; syphilis; smallpox; tetanus; toxoplasmosis; transmissible spongiform encephalopathies; variant Creutzfeldt-Jakob disease; trichinosis; tuberculosis; tularaemia; typhoid fever; typhus; viral haemorrhagic fever; yellow fever; yersiniosis.
22. Explain the principles of disinfection and sterilization, and demonstrate a sterile technique whilst performing minor surgery or taking blood cultures.

23. Describe measures to prevent acquiring infections him/herself, including taking full immunisation, taking care to avoid needle-stick injury (also for other staff), hand-hygiene, use of rubber gloves etc...

24. Describe appropriate and timely preventative action in the case of exposure to serious infection (e.g. a non-immune pregnant female exposed to varicella; a risky sexual encounter; a needle-stick injury) in self or others.

25. Understand the complimentary roles of GPs, infectious disease specialists, public health specialists, specialists in secondary care, practice nurses, community nurses, midwives, pharmacists, health educators, and other healthcare disciplines in health promotion, infectious disease prevention and proper management in the local community.

26. Be aware that the Caritas offers confidential one-to-one counselling related to HIV prevention and screening (Servizz Xefaq).

27. Describe the measures that should be taken in general practice during a pandemic of influenza or SARS to protect staff and other patients from contagion (both in the clinic and whilst performing domiciliary visits).

Knowledge base

Symptoms:
Fever, rigors, malaise, night sweats, anorexia, nausea, vomiting, diarrhoea, rash, lymphadenopathy, red eye, cough, sore throat, drowsiness, confusion, jaundice

Common and/or important conditions:

- Respiratory tract infection:
  viral sore throats and colds, tonsillitis, peritonsillar abscess, epiglottitis, laryngitis, tracheitis, influenza, bronchiolitis, bronchitis, pertussis, pneumonia (any cause), tuberculosis, diphtheria, pneumocystis carinii, SARS, Q-fever
- Digestive tract infection:
  viral enteritis, salmonellosis, dysentery (amoebic and bacillary), campylobacteriosis, food poisoning, giardiasis, cholera, yersinosis, hepatitis A, hepatitis B, hepatitis C, tuberculosis, threadworm, tapeworm
- Skin infection:
foliculitis, carbuncle, abscess, impetigo, erysipelas/cellulitis, MRSA, tetanus, leprosy, shingles, herpes simplex, molluscum contagiosum, dermatophytosis, candidiasis, leishmaniasis, head-lice, scabies

- **CNS infection:** meningitis, encephalitis, poliomyelitis
- **Systemic infection:** varicella, infectious mononucleosis, measles, mumps, rubella, HIV, viral haemorrhagic fever, yellow fever, meningococcaemia, typhoid, typhus, brucellosis, leptospirosis, visceral leishmaniasis, malaria

**Investigation:**
- Swabs from: skin, nose, throat, urethra, vagina, rectum
- Specimens of sputum, urine, blood, stool for microscopy and microbiological culture
- Interpretation of laboratory results

**Treatment:**
- The principles of treatment for common infections managed largely in primary care
- Commonly used antibiotics, antivirals, antifungals and antihelminthic agents and their indications, presentations (topical, oral, intravenous), recommended dosage regimen and duration of treatment. Also the cautions to their use, contraindications, interactions, and possible adverse effects.
- Incision and drainage of abscess

**Emergency care:**
- Acute management of suspected septic shock, septicaemia, meningococcal disease or other serious infection
- Understand indications for emergency referral of people with above conditions.

**Prevention:**
- Hand hygiene
- Food hygiene
- Safer sex
- Travel Health
Relevant Guidelines:

Prevention of infection:

- **Immunisation and Health risks for Travellers overseas**
  (British National Travel Health Network and Centre)

- **Health advice for travellers**
  (Medical Advisory for Travellers Abroad, UK)

- **Guidelines for malaria prevention in travellers**
  (Health Protection Agency, UK)

- **Guideline to Effective Immunisation**
  (Health Promotion Dept; Dept. of Pharmacy, University of Malta 2006)

- **Influenza Immunisation Policy**
  (Dept. of Health Promotion and Disease Prevention)

- **Summary of pneumococcal immunisation policy**
  (Dept. of Health, UK)

Screening/ Treatment of infection:

- **Antimicrobial Prescribing Guidelines**
  (Antibiotic Team, Government Health Services 2004)

- **Chickenpox in pregnancy**
  (RCOG)

- **Management of infection: guidance for primary care**
  (Health Protection Agency, UK)

- **Skin and Soft Tissue Infection Diagnosis and Management**
  (Infectious Disease Society of America)

- **Guidelines for the management of shingles**
  (British Infection Society)

- **Respiratory tract infections: antibiotic prescribing**
  (NICE)

- **Community Acquired Pneumonia Management**
  (BTS)

- **Meningococcal meningitis and septicaemia**
Management guidelines for herpes simplex

Malaria

Tuberculosis: Diagnosis, Management, Control

Human bites: Guidelines on the management of human bite injuries

Guidelines for the management of suspected cases of novel influenza

HIV Post-exposure prophylaxis: UK Guideline for the use of post-exposure prophylaxis for HIV following sexual exposure

HIV Post-exposure prophylaxis: Updated management of occupational exposure to HIV

HIV testing for patients attending general medical services

Guidance for the prevention, testing, treatment, and management of hepatitis C in primary care

Teaching and learning resources

Work-based learning – in primary care

• Observation and practice in diagnosis and management of infectious disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Learning and educating about containing spread of infection, including to self. Involving other health care professionals when indicated. Notifying infectious disease as required by law. Giving immunizations; taking specimens for investigation; interpreting laboratory results; incising and draining abscesses.

• Tutorials on principles of infectious disease prevention, diagnosis, management, containment and notification

• Analysis of video recorded consultations dealing with the prevention or diagnosis and management of infectious disease

• Random case analysis of consultations dealing with the prevention or diagnosis and management of infectious disease

• Using Educational Portfolio to record learning points and reflections
Work-based learning – in secondary care

- Observation and practice in diagnosis and management of infectious disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Opportunity to observe severe infections being managed in secondary care. Learning and educating about containing spread of infection, including to self. Observe and practise disinfection and sterilization. Learn how to prevent needle-stick injuries and risky exposure to body fluids. Study hospital protocol for these. Observe interdisciplinary approach to the management of infection. Notifying infectious disease as required by law. Taking specimens for investigation; interpreting laboratory results; incising and draining abscesses.

- Tutorials on principles of infectious disease prevention, diagnosis, management, containment and notification

- Using Educational Portfolio to record learning points and reflections

Other learning opportunities

- Private study of current local and international guidelines on antibiotic use, reports and case definitions issued by the Disease Surveillance Unit, national immunization programmes, journals and internet resources

- Interactive half-day release programme sessions on infectious disease prevention, diagnosis, management, containment and notification

- Informal discussions with trainer and peers

- Learning opportunities with other health care professionals e.g. seminars with infectious disease specialists, microbiologists, pharmacists, public health doctors, nurses, midwives, etc...
Formative Assessment

- Analysis of recorded consultations dealing with the prevention, diagnosis and management of infectious disease
- Mini-clinical examination e.g. examination of rash, liver, spleen and lymph nodes
- Directly observed procedures e.g. immunization; taking skin/nose/throat/urethral/vaginal swabs; taking blood cultures; incision and drainage of abscess
- Case-Based Discussion on consultations dealing with the prevention, diagnosis and management of infectious disease
- Analysis of Educational Portfolio for cases dealing with the prevention, diagnosis and management of infectious disease
- Patient Satisfaction Questionnaire

References:

2. Guideline to Effective Immunisation. (2006) Health Promotion Dept; Dept. of Pharmacy, University of Malta.
8. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health

Internet Resources:

- International Guidelines updated regularly at: http://www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 43.

Haematology and Immunology

Author: Dr Daniel Sammut MD MMCFD

Date: 2nd February, 2009
Introduction

Rationale

The haematopoietic and immune systems carry out vital functions in the human body. This fact becomes obvious once there is a deficiency of these systems, whether it is congenital or acquired.

Anaemia is by far the most common haematological abnormality. Since proper investigation for the cause of anaemia may be labour intensive and difficult, this step is sometimes skipped (unfortunately), and the patient is treated immediately with iron supplements. Obviously, this practice is very dangerous because malignancy may be missed or iron supplementation may be actually harmful. A thorough history and a blood cell count can give the GP a good idea as to the cause of anaemia in a particular patient. He/she may then refer the patient for specialised investigation as necessary.

The most frequent congenital clotting disorders are Haemophilia A, Haemophilia B and von Willebrand’s disease. These conditions are inherited in a defined manner. Affected patients typically have recurrent haemorrhage in skin, joints and other organs. Treatment involves transfusion of clotting factors when needed. Sadly, many Maltese haemophiliacs have acquired HIV and hepatitis C from contaminated transfusions in the 1980s. The role of the GP in the care of these (often young) patients is to support them as necessary, liaise with secondary care services, and advise regarding inheritance of the clotting disorder. The Maltese Haemophilia Society strives to educate and to improve the treatment of individuals with haemophilia.

Glucose-6-phosphate dehydrogenase (G6PD) deficiency is the most common human enzyme defect, being present in more than 400 million people worldwide. The most important measure to prevent haemolysis in affected individuals is the avoidance of certain foods and drugs. Family doctors should be careful to avoid giving sulphonamides, aspirin, anti-malarials, fluoroquinolones and other contraindicated drugs to these patients.

Immunosuppression is another potential adverse effect of certain drugs (e.g. sulphonamides; NSAIDs; methotrexate; carbimazole; propylthiouracil). GPs should know about this risk, and they should check the white-cell count to exclude agranulocytosis in the event of severe or fulminant sepsis.

Non-Hodgkin’s lymphoma is the eighth most common cancer in the Maltese islands, and the 7th most common cause of cancer death. Hodgkin’s lymphoma has a better prognosis. Acute leukemia is the most frequent childhood cancer. Acute lymphoblastic leukemia accounts for 85% of childhood leukemia, and peaks between the ages of 3 to 4 years. The treatment and prognosis for this
malignancy has improved dramatically in the last decades. On the other hand, acute and chronic myeloid leukemia and multiple myeloma syndromes occur in patients over 50 years, and have a much worse prognosis. GPs should be on the alert to pick up sinister signs and symptoms such as abnormal lymph nodes, pallor, easy bruising and recurrent infections, in order to identify and refer these cases early. Long-term management of these conditions will require liaison by the GP with oncologists, specialized nurses and voluntary organisations such as the Malta Hospice Movement and Puttinu Cares.

**Maltese health care priorities**

Beta-thalassaemia is a common single gene disorder in the Maltese population with a carrier rate of 1.8%. A national screening program was initiated by the Health Department in 1991 with the goal of identifying couples at risk and providing the necessary medical management and counseling. Prenatal diagnosis has been successful in identifying the majority of Maltese families at risk of beta-thalassaemia and the thalassaemia birth incidence has decreased considerably. However, education programs for the affected families and the general public are much needed.

Family doctors should take the initiative to screen couples before marriage by checking their haemoglobin level and then referring to the Thalassaemia Clinic where indicated.

The influx of asylum seekers from African states to our shores in recent years brings new challenges to medicine in Malta. These people come from countries where the prevalence of sickle-cell anaemia and HIV is high. New HIV positive cases have quadrupled from between 7-10 cases per year to about 30-40 between 2005 and 2008, and 50% of this incidence is in African illegal immigrants. The Maltese GP needs to adapt to this reality in his/her patient community.

Splenectomy and hyposplenism produce an acquired immunodeficiency. Patients who are affected have a high risk for invasive sepsis by capsulated organisms. It is estimated that the risk of death due to septicaemia is 200 times higher in splenectomized patients than in patients with a spleen. These individuals should be given the 23-valent pneumococcal vaccine every six years.

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Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of haematological and immunological disease. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care consultations with any patient presenting with symptoms and signs of haematological or immunological disease.

2. Describe the modes of inheritance of the thalassaemias, the haemophilias and G6PD deficiency. Recognise the increased risk for sickle-cell disease and malaria among people of African origin. Screen Maltese couples for thalassaemia before conception, and counsel and refer appropriately.

3. Take a careful history of the symptoms experienced by the patient and his/her ideas, concerns and expectations relating to his illness.

4. Appreciate that haematological or immunological disease (and its treatment) may have profound detrimental physical, psychological and social effects on the patient, particularly if chronic in nature or incurable. Take a holistic approach to the patient by assessing the psychological and social dimensions of disease on him/her and family members and intervene to help, possibly referring to support groups, social workers, counsellors or psychologists.

5. Perform a general physical examination to elicit signs of haematological or immunological disease.

6. Diagnose and manage patients with haematological or immunological disease, referring to secondary care as necessary.

7. List the common causes of anaemia and describe how to investigate it. Explain how to interpret the result of a full blood count and a blood picture.

8. Intervene urgently in cases of haemorrhage (external and internal), anaphylaxis or septic shock.

9. Describe the signs and symptoms of haematological malignancy.

10. List the drugs that may have an immunosuppressant effect.

11. List the drugs that may produce haemolysis in G6PD deficiency.
12. Explain how blood donors are screened. Describe the types of blood products, the indications for their use and possible adverse effects.

13. Coordinate care with haematologists, other specialists in secondary care, specialised nurses, laboratory staff, and pharmacists for the optimal management of haematological and immunological disease.

14. Appreciate that blood has a special significance in certain religions, and believers may refuse blood transfusion at all costs. Objectively discuss the inherent risks of this approach, always respecting the adult patient’s decision. Be aware that in the case of minors, the Maltese Courts can be asked to intervene urgently to overrule the guardians’ decision.

**Knowledge base**

**Symptoms:**
- Bruising, rashes, bleeding, pallor, dyspnoea, tiredness, fever, chills, malaise, anorexia, weight loss, lymphadenopathy, recurrent infection, jaundice, bone pain, gout

**Common and/or important conditions:**
- Anaemia (all causes)
- Haemoglobinopathies (thalassaemia; sickle-cell anaemia)
- G6PD deficiency
- Drug and food hypersensitivity
- Rhesus foetal haemolytic disease
- Thrombocytopenic purpura (idiopathic and thrombotic)
- Aplastic anaemia
- Acute and chronic leukemia
- Non-Hogkin’s lymphoma
- Hodgkin’s disease
- Multiple myeloma
- Myeloproliferative disorders
- Myelodysplastic syndromes

**Investigation:**
- Interpretation of blood test results (cell blood count; blood picture; ferritin; folate; vitamin B₁₂)
- Understand the logical steps in the investigation of anaemia, often including a search for a source of haemorrhage
- Understand the role of specialised blood tests, radiology, bone marrow aspiration and lymph node biopsy in further investigation in secondary care
Treatment:
- The principles of treatment for anaemia
- The principles of screening prior to blood donation
- The indications and potential adverse effects of blood transfusion
- Drugs that may have an immunosuppressant effect.
- Drugs that may produce haemolysis in G6PD deficiency.

Emergency care:
- Acute management of haemorrhage, anaphylaxis or septic shock
- Understand indications for emergency referral of people with above conditions.

Prevention:
- Vaccination of patients with impaired or absent splenic function against influenza, *streptococcus pneumoniae* and *haemophilus influenza b*
- Screening of blood donors for infections
- Pre-conception screening of couples for haemoglobinopathies
- Genetic counselling for carriers of genes for haemophilia and haemoglobinopathy
- The use of anti-D immunoglobulin for rhesus prophylaxis

Relevant Guidelines:

- **Use of anti-D immunoglobulin for rhesus prophylaxis**
  (RCOG; NICE)

- **Guidelines for the management of iron deficiency anaemia**
  (British Society of Gastroenterology)

- **Guidelines for the diagnosis and management of acquired aplastic anaemia**
  (British Committee for Standards in Haematology)

- **Anaemia management in chronic kidney disease**
  (NICE)

- **Haematology Cancer Clinical Care Guidelines**
  (Avon, Somerset and Wiltshire UK NHS)
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice in the diagnosis and management of haematological and immunological disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Involving other health care professionals when indicated. Taking and interpreting basic blood investigations. Giving immunizations.
- Tutorials on principles of haematological and immunological disease prevention, diagnosis and management
- Analysis of video recorded consultations dealing with the prevention, diagnosis and management of haematological and immunological disease
- Random case analysis of consultations dealing with the prevention, diagnosis and management of haematological and immunological disease
- Using Educational Portfolio to record learning points and reflections

Work-based learning – in secondary care

- Observation and practice in the diagnosis and management of haematological and immunological disease, assessing severity, choosing best modality to treat, always involving the patient in the decision process. Opportunity to observe severe cases being investigated and managed in secondary care. Involving other health care professionals when indicated. Observe interdisciplinary approach to management. Taking and interpreting blood investigations. Use of anti-D immunoglobulin. Genetic counselling.
- Tutorials on principles of haematological and immunological disease prevention, diagnosis and management
- Using Educational Portfolio to record learning points and reflections

Other learning opportunities

- Private study of textbooks, journals and internet resources
- Interactive half-day release programme sessions on haematological and immunological disease prevention, diagnosis and management
- Educational visit to the National Blood Bank
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with haematologists, physicians, paediatricians, oncologists, nurses, pharmacists, etc…
Formative Assessment

- Analysis of recorded consultations dealing with the prevention, diagnosis and management of haematological and immunological disease
- Mini-clinical examination e.g. examination of spleen and lymph nodes
- Case-Based Discussion on consultations dealing with the prevention, diagnosis and management of haematological and immunological disease
- Analysis of Educational Portfolio for cases dealing with the prevention, diagnosis and management of haematological and immunological disease

References:

6. Post-splenectomy vaccine prophylaxis (revised 2006) Department of Surgical Education, Orlando Regional Medical Center

Further Reading:

Internet Resources:

- European Haemophilia Consortium: www.ehc.eu
- UK Thalassaemia Society: www.ukts.org
- Sickle Cell Society: www.sicklecellsociety.org
- Aplastic Anaemia Trust: www.theaat.org.uk
- Allergy UK: www.allergyuk.org
- Immune Deficiency Foundation: www.primaryimmune.org
- International Guidelines updated regularly at: www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 44.

Emergencies

Author: Dr Daniel Sammut MD MMCFD

Date: 29th January 2009

Reference Document:

RCGP Curriculum Statement No. 7 – Acutely Ill People
Introduction

Rationale

Emergencies present unpredictably, disrupting work and routines, and require an appropriate urgent response on the part of the GP. They may be seen in familiar contexts such as the surgery, on home visits and in unfamiliar and unsupported surroundings such as at the roadside. Although emergency care support (e.g. through paramedics) is available across the Maltese islands, there may be significant delays before ambulance help arrives.

GPs should be able to recognise a true medical emergency, and be competent in its prompt management. Truly serious situations are relatively infrequent in general practice, making it difficult for the doctor to acquire and maintain the appropriate skills, some of which may be complex. Realisation of this fact along with periodic emergency care training in realistic situations will help family doctors to maintain an effective response.

Many emergencies are considered in the relevant Clinical Module (e.g. status asthmaticus in Chapter 36 - Respiratory Problems). The rationale of this chapter is to highlight unifying principles pertaining to emergency medicine. Therefore, the section on Relevant Guidelines has been omitted here, but these can be found in the pertinent Clinical Modules.

Maltese health care priorities

The Admitting and Emergency (A&E) Department at Mater Dei Hospital is chronically overloaded with work, leading to long waiting times for patients and added stress for hospital staff. Indeed, many patients who are seen at this department have conditions that can be readily diagnosed and treated by family doctors working both in the public and private sector. Examples are back pain, sprains and strains, superficial wounds, most headaches, renal colic, mild-to-moderate asthma attacks and mild-to-moderate hypersensitivity reactions. Lately, the Health Division has organised an educational campaign to encourage the responsible use of the A&E department by the general public.

In the pre-budget document for 2009, the current Maltese Government promised to strengthen and reform primary care. Introduction of formal patient registration would greatly reinforce the gatekeeper role of empowered GPs and undoubtedly alleviate the burden on secondary care. It would also force all GPs to offer a comprehensive out-of-hours service, something that many solo GPs are not in a position to cater for at present. This can be done by pooling resources to run or
employ locum services or by setting up a group practice. Naturally, family doctor clinics need to be well equipped to provide a quality emergency service.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor’s role in the diagnosis and management of patients presenting with emergencies. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care contact with any patient presenting with an emergency.

2. Recognise a true emergency and intervene promptly. Reassure patients who DO NOT have an urgent problem.

3. Demonstrate how to use telephone triage:
   - to decide to use ambulance where speed of referral to secondary care or paramedic intervention is vital
   - to make appropriate arrangements to see the patient as soon as possible
   - to give advice where appropriate.

4. Demonstrate good skills of communication, history-taking, observation, physical and mental examination to perform preliminary assessment of an emergency situation within minutes and formulate an appropriate differential diagnosis.

5. Describe how the acute illness itself and the anxiety caused by it can impair communication between doctor and patient, and make the patient’s safety a priority.

6. Adopt a person-centred approach, respecting patients’ autonomy whilst recognising that acutely ill patients often have a diminished capacity for autonomy.

7. Recognise how the presentation may vary because of age, gender, ethnicity, pregnancy, co-morbidity, mental retardation, alcohol and substance abuse.

8. Recognise that an acute illness may be an acute exacerbation of a chronic disease.

10. Suitably prioritise problems.

11. Ensure one’s own and others’ safety in an emergency situation.

12. Call for help early when necessary, including calling an ambulance or a more experienced colleague.

13. List the equipment needed to deal with an emergency in the clinic or other places. Carry basic equipment (e.g. airway; intravenous cannulae; intravenous drugs) in the GP bag.

14. Know where equipment is located and use it efficiently in an emergency.

15. Demonstrate calm and clear leadership and teamwork in an emergency. Coordinate care with other professionals in primary care and with other specialists.

16. Acquire periodic ALS training and re-certification.

17. Recognise death.

18. Make complex ethical decisions demonstrating sensitivity to the wishes of the patient (or relatives, if the patient is incapable) in the planning of care.

19. Demonstrate an awareness of the important technical and pastoral support that a GP needs to provide to patients and carers at times of crisis or bereavement including certification of illness or death.

20. Make appropriate referrals to hospitals and other professionals in the emergency setting. Use knowledge of patient and family, and the availability of specialist community resources, to decide whether a patient should be referred for acute care or less acute assessment or rehabilitation, thus using resources appropriately.

21. Demonstrate an awareness of cultural and other factors that might affect patient management.

22. Recognise patients who are likely to need acute care and offer them advice on prevention, effective self-management and when and who to call for help.

23. Deal with situational crises and manipulative patients, avoiding the inappropriate use of healthcare resources.
24. Involve the police in situations of violence or self-harm.

25. Demonstrate an awareness of legal frameworks (Mental Health Act) affecting acute healthcare provision especially regarding compulsory admission and treatment.

26. Demonstrate the use of time as a tool and to use iterative review and safety-netting as appropriate.

27. Describe the challenges of maintaining continuity of care in acute illness and taking steps to minimise this by making suitable handover and follow-up arrangements.

28. Deliver concise, relevant and clear information to the responsible professional/s during briefing and handover.

29. Show awareness of the impact of the doctor’s working environment and resources on the care provided.

30. Demonstrate an awareness of their personal values and attitudes to ensure that they do not influence their professional decisions or the equality of patients’ access to acute care.


32. Identify patients for whom resuscitation or intensive care might be inappropriate and take advice from carers and colleagues. Discuss the ethical implications that surround such a decision, and understand that the attitudes of the patient may conflict with those of relatives and of staff.

33. Demonstrate an understanding of the local arrangements for the provision of out-of-hours care.

34. Demonstrate an understanding of protocols/guidelines that are available from national and international bodies and how these may be adapted to unusual circumstances.

35. Show how to use various reliable sources of information to aid diagnosis and management of emergencies.

36. Evaluate own and team’s performance in regard to the care of the acutely ill person; including an ability to conduct significant event analyses and take appropriate action.

37. Manage personal time and stress effectively.
Knowledge base

Symptoms:
- Cardiovascular – chest pain, palpitations, haemorrhage, shock
- Respiratory – wheeze, breathlessness, stridor, choking
- Central nervous system – convulsions, reduced conscious level, confusion
- Mental health – threatened self-harm, delusional states, violent patients
- Severe pain
- Musculoskeletal- pain, swelling, bruising, deformity, loss of function.

Common and/or important conditions:
- Hypoglycaemia or hyperglycaemic coma
- Asthma, croup, laryngospasm, epiglottitis, choking
- Pneumo/haemothorax
- Shock (cardiogenic, haemorrhagic, anaphylactinc, septic)
- Acute coronary syndromes
- Cardiac arrhythmias
- Haemorrhage (revealed or concealed)
- Foreign body in body cavity, eye or skin
- Drug overdose
- Poisoning
- Status epilepticus
- Fractures, dislocations, sprains, haematomas
- Burns and scalds
- Hypo/hyperthermia
- Electrolyte disturbances
- Parasuicide and suicide attempts.

‘Dangerous’ diagnoses are conditions that demand urgent action when the merest suspicion of them crosses a doctor’s mind:
- myocardial infarction
- pulmonary embolus
- subarachnoid haemorrhage
- appendicitis
- ischaemia of any organ
- intestinal obstruction or perforation
- meningitis
- aneurysms
- ectopic pregnancy
- acute psychosis/mania
- visual problems that could lead to blindness including retinal detachment, haemorrhage, temporal arteritis.
Common problems that may be expected with certain practice activities:
- anaphylaxis after immunization or drug treatment,
- local anaesthetic toxicity
- vaso-vagal attacks with, for example, minor surgery
- haemorrhage

Examination:
- General physical examination including level of consciousness, clues from odour, clothing, etc...
- Mental state assessment

Investigation:
- Checking blood glucose level
- Dipstick urine analysis
- Taking and interpreting an electrocardiogram
- Interpreting pulse oximetry and other vital parameters
- Phlebotomy and interpreting blood test results in context
- Taking arterial blood and interpreting blood gases result
- Interpreting plain X-rays.

Emergency care:
- The ‘ABC’ principles in initial management
- Appreciate the response time required in order to optimise the outcome
- Understand the organisational aspects of A&E Department
- Understand the importance of maintaining personal and others’ safety
- Pre-hospital management of all the above-mentioned emergencies:
  - cardiopulmonary resuscitation of children and adults including use of a defibrillator
  - inserting an intravenous cannula and setting up an infusion
  - giving intramuscular and intravenous injections
  - controlling a haemorrhage and suturing a wound
  - passing a urinary catheter
  - using a nebuliser and giving oxygen treatment
  - bandaging and splinting
  - treating burns and scalds
  - neck immobilization
  - performing cricothyrotomy

Analgesia:
- evaluation of the patient in pain, making patient comfort a priority
- prescribing opioid and non-opioid analgesic drugs safely
- re-evaluating the efficacy of analgesia in a timely manner
- monitoring patients for common side effects of analgesic drugs
- safely use anti-emetic drugs to prevent or treat nausea and vomiting
- awareness of the risk of addiction to pain-relieving medication
- considering the effect of hepatic and renal dysfunction on analgesic pharmacology
- assessing the effect of prescribed analgesia in a timely manner
- consider that analgesia may temporarily mask the severity of illness.

**Resources:**

- Appropriate use of emergency services, including logistics of how to obtain an ambulance/paramedic crew
- Familiarity with available equipment in own car, bag and clinic, and that carried by ambulance
- Selection and maintenance of appropriate equipment and un-expired drugs that should be carried by GPs
- Being able to organise and lead a response when required, which may include participation by staff, members of the public or qualified responders.
- Knowledge of ongoing training required for practice staff and others as a team in the appropriate responses to an emergency.

**Prevention:**

- Advice to patients on prevention, e.g. with a patient with known heart disease, advice on how to manage ischaemic pain including use of glyceryl trinitrate (GTN), aspirin and appropriate first-line use of paramedic ambulance.
Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills in emergency situations (in clinic or patient’s home) such as history-taking from patient and/or carers; calm situation management; general physical examination; mental state assessment; formulating a differential diagnosis; intervening rapidly with pre-hospital care when necessary; calling an ambulance and/or consulting with an experienced colleague when indicated; performing and interpreting ECGs; ordering and interpreting laboratory and radiology results; negotiating a management plan; teamwork with other professionals; prescribing and giving treatment; organising follow-up; adopting a patient-centred approach and ensuring staff safety (including own) throughout

- Out-of-hours work
- Tutorials on principles of emergency care
- Random case analysis of consultations for an emergency
- Case-based discussions on emergency cases
- Analysis of video recorded consultations for an emergency
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills in emergency situations (particularly in the A&E Department) such as history-taking from patient and/or carers; calm situation management; general physical examination; mental state assessment; formulating a differential diagnosis; intervening rapidly when necessary; calling for help of paramedics and experienced colleagues when indicated; interpreting ECGs; taking and interpreting ABGs; ordering and interpreting laboratory and radiology results; negotiating a management plan; teamwork with other professionals; prescribing and giving treatment; organising follow-up; adopting a patient-centred approach and ensuring staff safety (including own) throughout

- Accompanying ambulance trips
- Tutorials on principles of emergency care (preferably interdisciplinary)
- Using Educational Portfolio to record learning points and reflections.
Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about emergencies
- Periodic hands-on BLS and ALS training and recertification (preferably interdisciplinary)
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with secondary care colleagues, nurses, etc...

Formative Assessment

- Analysis of video recorded consultations for an emergency
- Mini-clinical examination e.g. pulse, level of consciousness
- Directly observed procedures e.g. taking and interpreting ECG; administering nebulised treatment; setting up i.v.i.; cardio-pulmonary resuscitation
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations for an emergency condition.

Reference:


Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 7 – Acutely Ill People*
Further Reading


Internet resources:

- International Guidelines updated regularly at:  www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information:  http://cks.library.nhs.uk/home
Chapter 45.

Sexual Health

Author: Dr Daniel Sammut MD MMCFD

Date: 1st May, 2009

Reference Document:

RCGP Curriculum Statement No. 11 – *Sexual Health*
Introduction

Rationale

Human sexuality is very complex and involves the interaction of biological, psychological and social factors (e.g. religious beliefs). This same complexity sometimes makes the topic of sexual health difficult to discuss and manage. Personal issues that lead to great psychosocial suffering such as sexually-transmitted infection (STI), sexual dysfunction, sexual orientation and sexual deviation, will not be broached unless the patient feels comfortable with his/her family doctor. Hence, GPs should be sensitive and non-judgemental in their approach, and take a holistic view of patients in their stage of development (e.g. adolescence) and social background. A multidisciplinary approach is often helpful, but patients’ rights for autonomy and confidentiality should be respected.

This module overlaps in scope with other sections of this curriculum:
- Chapter 32- Men’s Health
- Chapter 33 - Women’s Health (includes cervical cancer screening and contraception)

Maltese health care priorities

In general, the Maltese are becoming increasingly promiscuous, many starting at a very young age. Unfortunately, this fact is exacerbated by an under-use of adequate contraception. 48% of patients attending the genito-urinary (GU) clinic report having casual sex while 63% admit to never using protection during casual sex. In 2007, 219 out of 812 (26.9%) births to unmarried mothers involved teenagers aged 15 to 19. Four babies were born to mothers younger than 15.¹

The GU clinic in Boffa hospital was launched in 2000, with the aim of providing free treatment, confidentiality and open access to patients. Worrying data from the GU clinic (which gives only part of the picture) shows a progressively increasing incidence of STIs such as gonorrhoea, syphilis and chlamydia infection. Several STIs frequently co-exist in the same patient, although they may be completely asymptomatic. For example, chlamydial infection is an insidious STI that may cause infertility and increase the risk for ectopic pregnancy.

Furthermore, local strains of Neisseria gonorrhoea are becoming more and more resistant to commonly-used antibiotics (e.g. ciprofloxacin). Statutory reporting for the major STIs (syphilis, gonorrhoea, HIV and chlamydia) was introduced in January 2004. Referral of patients to the GU clinic is encouraged to enable proper investigation, case management and contact tracing.²
Family doctors also have an important role in the prevention of sexual health problems by:

- giving immunizations against hepatitis B and human papilloma virus (in girls)
- educating about safer sexual practices (abstinence; one partner; use of condoms)
- providing other contraception that may be acceptable to the patient.

**Learning Outcomes**

The following learning objectives relate specifically to the family doctor's role in the care of sexual health issues. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

**By the end of the specialist training, the trainee is expected to:**

1. Manage primary care contact with patients with sexual health concerns and problems, adopting a patient-centred approach.

2. Demonstrate a sensitive and non-judgemental approach towards these patients.

3. Demonstrate adequate consulting skills to solicit a good sexual history.

4. Appreciate the importance of the social and psychological impact of sexual health problems on the patient and his/her partner.

5. Appreciate the important contributions of social pressures (e.g. family values; peer pressure; religion; the communication media) on sexual beliefs and behaviour.

6. Perform a complete examination of the genitalia.

7. Describe the functional anatomy of the male and female genital systems and the female reproductive physiology to aid diagnosis.

8. Demonstrate knowledge of the epidemiology of sexual health problems in the local community to assist diagnosis.

9. Apply sound evidence-based criteria to assess severity of sexual health problems to decide when to refer a patient to specialist care and whether the referral should be as an emergency, urgent or routine appointment.
10. Demonstrate an evidence-based approach towards investigation and management of STIs. Describe the services offered by the GU clinic.

11. Appreciate that most STIs are asymptomatic. Strive to trace and treat sexual contacts of the index patient.

12. Counsel patients with sexual problems including psychosexual issues related to contraception, STI, HIV testing and for patients who have an unplanned pregnancy. Be aware that Caritas provides a service for counselling related to HIV testing (Servizz Xefaq).

13. Describe the best-practice guidance on the provision of advice and treatment to young people under 16 years.

14. Negotiate a realistic and comprehensive management plan in partnership with patients, particularly with chronic disease. Involve patients in decision-making and empower them to self-manage their conditions as far as practicable.

15. Coordinate care with other health care professionals, such as genito-urinary specialists, gynaecologists, urologists, infectious disease specialists, microbiologists, nurses, psychiatrists, psychologists, pharmacists and laboratory staff to enable optimal management of sexual health problems.

16. Recognize and respect the autonomy of patients.

17. Respect patients’ right to confidentiality unless public health is jeopardised.

18. Promote safer sexual practices.

19. Encourage the uptake of vaccines against hepatitis B and human papilloma viruses.

20. Describe those factors associated with risky sexual behaviour including mental health problems, drug and alcohol misuse and a history of sexual abuse.

21. Describe the different patient groups who are at greater risk of unplanned pregnancies and the value of an opportunistic approach for health promotion.

22. Be aware of nation-wide educational campaigns organised by governmental (e.g. Health Promotion Unit) and non-governmental organisations (e.g. Kummissjonji Djoċesana Żgħażagh).

23. Be aware of those for whom consideration of sexual health may be appropriately omitted by health professionals (e.g. the disabled or the elderly).
24. Describe common presentations of sexual dysfunction and of sexual violence and abuse, including covert presentations such as somatisation.

25. Liaise with other specialists and the police in cases of sexual abuse or assault.

26. Understand the different cultural expectations regarding sexual behaviour and orientation.

27. Clarify personal values and attitudes relating to sexuality. Be careful not to allow personal views to influence the quality of clinical management.

28. Maintain the highest ethical professional standards when dealing with patients who have sexual health issues.

29. Notify the following conditions to the Infectious Disease Prevention and Control Unit: AIDS, antimicrobial resistance, chlamydia infection, gonococcal infection, hepatitis B, HIV-infection, syphilis.

**Knowledge base**

**Symptoms:**
genital rashes, ulcers, lichen sclerosis, ano-genital lumps, abnormal genital smell, abnormal genital discharge, dysuria, lower abdominal pain, testicular pain and swelling, dyspareunia, intermenstrual bleeding, post-coital bleeding

**Common and/or important conditions in men and women:**
- Bacterial vaginosis
- Candidiasis
- Group B haemolytic streptococcus
- Chlamydial infections
- Gonorrhoea
- *Trichomonas vaginalis*
- Ano-genital ulcers – herpes simplex, syphilis, tropical infections, primary HIV infection
- Ano-genital warts
- Pubic lice
- Conditions suggestive of immunosuppression (e.g. pneumocystis pneumonia, tuberculosis, lymphoma, seborrhoeic dermatitis or oral thrush) or of primary HIV infection
- Syphilis
- Conjunctivitis (neonatal and adult)
- Reiter’s syndrome
• HIV/AIDS and the presentations/complications including pneumocystis pneumonia, candidiasis, cryptococcus, Kaposi’s sarcoma, toxoplasmosis, lymphoma, hepatitis, tuberculosis
• Sexual dysfunction.

Investigations:
• Urinalysis: dipstick and laboratory
• Microbiology and virology swabs – which to use, which samples to take, limitations of tests and interpretation of results
• Blood tests for HIV, syphilis, hepatitis B and their interpretation
• Secondary care investigations, e.g. colposcopy.

Treatment:
• Principles of treatment for common conditions diagnosed and/or managed in primary care (see above)
• Principles of antiretroviral combination therapy for HIV/AIDS, potential side effects and the role of the GP in their management in primary care.

Emergency care:
• The role of post-exposure prophylaxis in HIV prevention
• Referral for suspected Pneumocystis carinii pneumonia
• Responding to early presentation of sexual assault.

Prevention:
• Health education and prevention advice – safer sex and risk reduction
• National screening programmes – cervical screening; antenatal HIV, hepatitis B and syphilis testing
• Hepatitis B and human papilloma virus immunisation

Psychomotor skills

• Perform a genital examination including digital and speculum examination
• Take microbiology and virology swabs from ano-genital areas
• Intramuscular injection
• Treatment of ano-genital warts
• Teach patients about condom use
• Counselling for sexual dysfunction or difficulties due to sexual orientation.
Relevant Guidelines:

- *UTI: Guideline on the management of urinary and male genital tract infections* (European Association of Urology)
- *Management of gonorrhoea in adults* (British Association for Sexual Health and HIV (BASHH))
- *Management of Chlamydia trachomatis genital tract infection* (BASHH)
- *Management of non-gonococcal urethritis* (BASHH)
- *Management of vulvovaginal candidiasis* (BASHH)
- *Management of bacterial vaginosis* (BASHH)
- *Management of Trichomonas vaginalis infection* (BASHH)
- *Management of genital herpes* (BASHH)
- *Management of syphilis* (BASHH)
- *Management of prostatitis* (BASHH)
- *Management of epididymo-orchitis* (BASHH)
- *Management of PID* (BASHH)
- *Management of viral hepatitides* (BASHH)
- *Management of sexually-acquired reactive arthritis* (BASHH)
- *UK National Guidelines for HIV Testing* (BASHH)
- *HIV Post-exposure prophylaxis: UK Guideline for the use of post-exposure prophylaxis for HIV following sexual exposure* (BASHH)
- *UK National Guideline on the sexual health of people with HIV: sexually transmitted infections* (BASHH)
- *Management of genital warts* (BASHH)
- *Management of molluscum contagiosum* (BASHH)
- *Management of Phthirus pubis* (BASHH)
- *Management of scabies* (BASHH)
- *Management of balanitis* (BASHH)
- *Management of vulval conditions* (BASHH)
- Management of suspected sexually transmitted infections in children & young people (BASHH)
- UK National guidelines on undertaking consultations requiring sexual history taking (BASHH)
- Guidelines for medico-legal care for victims of sexual violence (WHO)

Teaching and learning resources

Work-based learning – in primary care

- Observation and practice of skills such as taking a careful sexual history, examination of the genitalia; immunisation; giving advice about safer sexual practices; formulating a differential diagnosis; taking and interpreting ano-genital swabs and other investigations; evidence-based prescribing; counselling; liaison with other professionals
- Tutorials on sexual health problems: epidemiology; clinical presentation; differential diagnosis; investigation; and management
- Random case analysis of consultations involving sexual health problems
- Analysis of video recorded consultations involving sexual health problems
- Using Educational Portfolio to record learning points and reflections.

Work-based learning – in secondary care

- Observation and practice of skills such as taking a careful sexual history, examination of the genitalia; immunisation; giving advice about safer sexual practices; formulating a differential diagnosis; taking and interpreting ano-genital swabs and other investigations; evidence-based prescribing; counselling
- Observation of multidisciplinary approach and teamwork
- Tutorials on sexual health problems: epidemiology; clinical presentation; differential diagnosis; investigation; and management
- Using Educational Portfolio to record learning points and reflections.
Other learning opportunities:

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about sexual health problems
- Conferences and courses (both local and international) about sexual health problems
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with genito-urinary specialists, gynaecologists, urologists, nurses, pharmacists, laboratory staff, counsellors, educators, etc…

Formative Assessment

- Analysis of video recorded consultations involving sexual health problems
- Mini-clinical examination e.g. examination of the genitalia
- Directly observed procedures e.g. treatment of ano-genital warts
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations involving sexual health problems.

References:

1. Carabot P. Interview for Maltatoday on Sunday – 18.11.07

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statement No. 11 – Sexual Health
Further Reading:


Internet Resources:

- British Association for Sexual Health and HIV:  www.bashh.org
Chapter 46.

Mental Health Problems and Addiction

Author: Dr Daniel Sammut MD MMCFD

Date: 17th February 2009

Reference Documents:

RCGP Curriculum Statements:
No. 13 – Care of People with Mental Health Problems
No. 15.3 – Drug and Alcohol Problems
Introduction

Rationale

Mental illness is common in general practice. In the Health Interview Survey 2003, 10% of Maltese reported having had chronic anxiety, and 7% have had chronic depression some time in their lives.\(^1\) This prevalence is close to that of other European countries.\(^2\) A much larger proportion of the population will experience periods of anxiety and sadness during their lifetime, frequently associated with life events. Mental illness can range from acute to chronic, and in a continuum from mild (quasi-normal) adjustment reactions to severe psychosis. Skilled family doctors are able to correctly diagnose and manage all forms and severities of psychiatric disease. The use of diagnostic criteria and validated patient questionnaires can help with this task.

Chronic mental illness has a devastating effect on the patient and his/her family. It often leads to poor self-esteem, relationship problems, impaired education, loss of working days, unemployment, consequent social disadvantage and marginalization. In addition, mental illness is a risk factor for substance abuse (tobacco smoking; alcoholism) and physical disease (e.g. ischaemic heart disease). Chronic physical disease may cause mental ill health, and vice-versa. Therefore, GPs should take a sensitive and holistic approach in the care of all patients, and strive to minimize inequalities in health care.

Psychiatric patients are intrinsically vulnerable, and great care should be taken by health professionals to behave ethically in all situations. GPs should also provide continuity of care and ongoing support to these patients, trying to empower them to take care of themselves. Every individual has strengths and weaknesses, and the former should be used as an asset to overcome the latter. If the help of the service user’s family or carers is harnessed, better and longer-lasting results can be achieved.

Family doctors are sometimes called in to intervene in emergency situations of acute psychosis and possibility of violent behaviour. These challenging scenarios require the GP to keep calm, get early help from the police, try to reassure the patient and his/her family, and minimize danger to self and others. Close liaison with the caring psychiatrist and urgent admission (voluntary or compulsory) to the psychiatric hospital are indicated.

Intentional self-harm is the second most important cause of potential years of life lost before age 65 in Malta, although the standardised death rate is below the average for the European Union. 42% of local suicide deaths occur in individuals younger than 44 years, and males, as expected predominate. Deaths by jumping from a height, followed by hanging, were the commonest modes of committing suicide.\(^3\) These deaths are potentially preventable. Family doctors should screen
all depressed patients for suicidal intent, and be on the alert for high risk patients (e.g. males living alone). Close liaison with the caring psychiatrist and urgent admission (voluntary or compulsory) to the psychiatric hospital can save the patient’s life. In the event of suicide, bereaved relatives may need long-term support from their GP and possibly other mental health professionals.

Because of the stigma still associated with mental illness, patients frequently present to their GP with somatic symptoms. These patients frequently attend with minor and unexplained complaints, show incongruent distress, often shop around many doctors, and undergo innumerable investigations for symptoms such as chest pain, dyspnoea, palpitations and tension headache. Furthermore, there are the common but poorly understood symptom syndromes such as fibromyalgia, irritable bowel syndrome and chronic fatigue syndrome, for which the relative contribution of mind and body are not yet elucidated. A family doctor who is truly patient-centred, and who makes an effort to pick up the verbal and non-verbal cues expressed by the patient, is more likely to recognise these cases and manage them appropriately. Family doctors realise that all disease has a psychological dimension, and they take this in consideration in their clinical management. GPs may also be trained in the delivery of cognitive-behavioural therapy.

Regrettably, the plague of alcohol and substance misuse is ever on the increase all over Europe, mostly in young people. International surveys reveal the following alarming results:

- 12% of Maltese youths aged 11 years, 24% of those aged 13, and a shocking 45% of 15-year-olds drink alcohol at least once a week.\(^3\)
- 12.5% of local 15-yr olds report to have used cannabis; 7.5% in the last month.\(^3\)
- 10% of 16-yr old Maltese students have used marijuana or hashish in the last 12 months (EU average=12%).\(^4\)
- 4% of 16 yr-olds report using illicit drugs other than cannabis (6% EU average)\(^4\)
- Use of inhalants is reported by 16% of the students in Malta compared to only 10% as the EU average.\(^4\)
- Tranquillisers and sedatives without a doctor’s prescription is less common in Malta than the EU average (3 compared to 6%) while the tendency is the opposite for use of alcohol together with pills (9 and 7% respectively).\(^4\)

Alcohol excess leads to physical and neuropsychiatric morbidity, social problems, and sometimes to mortality from alcohol-related disease or accidents. Health-sector preventive measures against hazardous and harmful alcohol consumption, such as screening and brief interventions, have proven to be effective and cost-effective in reducing alcohol consumption and alcohol-related harm. Early identification and effective treatment in health-care settings of alcohol-use disorders, also in patients with co-morbid conditions, can reduce associated
morbidity and mortality and improve the well-being of affected individuals and their families. Treatment is most effective when supported by sound policies and health systems and integrated within a broader preventive strategy. Health-care providers should concentrate on clients’ health improvement and satisfaction through evidence-based and cost-effective interventions.\(^5\)

Drug overdose by illicit drugs caused 7 deaths in 2006, 5 of whom were males, and all cases were under the age of 45 years.\(^6\) To be effective, prevention of substance abuse must target children and young adults. Family doctors should promote a healthy, drug-free lifestyle, and be careful to prescribe narcotic and psychotropic drugs responsibly.

\(^5\) Aġenzija Sedqa is the national agency against alcohol and substance misuse. It organizes educational campaigns aimed at children, teenagers, young adults, parents, employees and the elderly. Sedqa’s Substance Misuse In-Patients Unit (SMIPU) offers a 24-hour specialised service with the constant presence of a nurse, care worker and a medical officer on call. The aim of this service is to provide a safe and humane detoxification process to individuals with drug and/or alcohol problems. The year 2006 saw the local launch of Buprenorphine, an opiate substitute that is an added alternative treatment regime to methadone. Buprenorphine should only be administered once the individual has started experiencing withdrawal symptoms. Otherwise the individual will actually start experiencing withdrawals due to the drug. The Sedqa in-patient facility, Dar Impenn, has had an instrumental role in this new treatment, with clients being eased into this new regime whilst in a safe medically supervised environment.\(^7\)

\(^6\) Caritas Malta also provides a wide range of holistic professional services for the prevention and rehabilitation of substance misuse, including counselling and support to patient and family, non-residential out-reach programmes and residential rehabilitation programmes.\(^8\) The family doctor should keep him/herself well informed about these services in order to help patients to access them.

\(^7\) Doctors should always be on the lookout for symptoms and signs of substance and alcohol abuse in their patients, and should adopt a non-judgemental approach to offer help in quitting. In addition, GPs should be able to intervene urgently in cases of suspected drug overdose or withdrawal syndromes. Substance abuse may be very difficult to manage because a mutually trusting therapeutic relationship is often lacking. These patients are frequently immersed in numerous social problems, which may be either the cause or the effect of their addiction, or both. Unless these maintaining social factors are effectively tackled, the prognosis is poor.
Maltese health care priorities

The current trend is for mentally ill patients to be managed within their community as far as possible, since social integration improves prognosis. Apart from inpatient facilities at Mount Carmel Hospital and Mater Dei Hospital, psychiatrists follow-up patients at out-patient clinics and in several regional Health Centres.

Optimal management of mental illness requires an interdisciplinary approach. Psychiatric nurses, clinical psychologists, psychotherapists, social workers and occupational therapists all have an important role in supporting the patient and his family on his/her road to recovery. The services of these professionals can be accessed through government agencies such as Aġenzija Appoġġ, in private practice, and through Support Groups and NGOs like Caritas and Richmond Foundation. The latter organization provides a variety of services for the mentally ill, including:

- leisure centres
- self-help groups
- wellness programme
- a residential programme for children 5 to 10 yrs old
- training centres
- supported employment programmes
- staff and organization support programme
- home support service
- hostels

Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the prevention, diagnosis and management of mental illness. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with symptoms and signs of mental illness or addiction.

2. Appreciate the importance of the negative social impact of mental health problems and alcohol and substance misuse on the patient, his/her family, friends, dependants and employers. Describe the extent and implications of stigma and social exclusion.
3. Demonstrate an understanding that mental illness is culturally determined and depends on assumptions that may not be universal. Demonstrate cultural sensitivity.

4. Demonstrate adequate consulting skills to solicit a genuine history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic illness.

5. Describe the special challenges of rapport-building with patients with mental illness, and alcohol and substance abusers, especially given the chaotic and challenging ways in which they may use the service.

6. Appreciate the high prevalence of mental health problems, and alcohol and substance misuse in the Maltese community, present even in youngsters.

7. Recognize particular groups of patients at higher risk of mental illness (e.g. children from broken families; victims of abuse; postpartum; the bereaved) and take measures to protect them.

8. Recognise normal emotional distress, such as in recent bereavement, and avoid over-treating.

9. Take a holistic bio-psycho-social approach to the diagnosis and management of mental health problems and alcohol and drug misuse.

10. Perform a complete mental state examination.

11. Demonstrate how to screen, and diagnose, people experiencing mental health problems, using validated instruments where they are available.

12. Give examples of organic disease that may present with neuropsychiatric symptoms and signs (e.g. hypoglycaemia; thyroid disease).

13. Appreciate the importance of the negative impact of mental illness and addiction on physical health (e.g. ischaemic heart disease in schizophrenia; alcoholic cirrhosis).

14. Describe the signs and symptoms of alcohol and substance misuse.

15. Promote a healthy drug-free lifestyle. Screen patients for alcohol and substance misuse. Ensure that personal opinion does not prejudice clinical management. Offer non-judgemental advice and help the patient to change his/her lifestyle. When indicated, offer medication (for a short period and with early follow-up) or referral to other health professionals or
group sessions (such as those held by the Sedqa, Alcoholics Anonymous and Caritas).

16. Screen patients for depression. Screen depressed patients for suicidal intent. Describe inherent patient factors that increase risk. Treat risk for suicide seriously and take appropriate measures to curtail it.

17. Apply sound evidence-based criteria to assess severity of mental illness and alcohol and drug-related problems, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

18. Intervene urgently when patients present with a psychiatric emergency, assessing danger, managing the situation calmly and calling early for help from the police and other mental health professionals.

19. Be familiar with the Mental Health Act and the legal requirements for compulsory admission to the psychiatric hospital.

20. Describe how to access health and social care organisations, both voluntary and statutory, that are an essential component of managing people with mental health problems.

21. Recognize that mental illness often presents with somatic features and manage appropriately.

22. Describe early indicators of difficulty in the psychological wellbeing of children and young people. Respond quickly to concerns raised by parents, family members, early-years workers, teachers and others who are in close contact with the child or young person. Shoulder the responsibility of supporting children in difficulty and know how to access support and advice from the Child Guidance Clinic.

23. Demonstrate an evidence-based approach towards investigation and management of mental health problems and alcohol and drug-related problems.

24. Negotiate a realistic and comprehensive tailor-made management plan in partnership with patients who suffer mental illness or addiction and their carers. Empower patients to self-manage their conditions as far as practicable.

25. Assess the impact of psychiatric disease on the patient’s quality of life and fitness to work, making appropriate recommendations.

26. Describe the evidence for the effectiveness of talk-therapies (e.g. cognitive-behavioral therapy) in the management of mental illness.
27. Show wide knowledge on the pharmacological treatment options for mental illness, and alcohol and substance misuse. Know the indications, contra-indications, cautions, interactions, dosage regimens and common adverse effects of frequently used drugs.

28. Follow legal requirements when prescribing psychotropic or narcotic drugs. Prescribe these drugs responsibly: only when indicated and for the shortest duration possible. Appreciate the potential of addiction and misuse of these medications.

29. Appreciate that non-adherence to medication is very common. Appreciate that involving the patient in decision-making improves concordance to treatment.

30. Recognise the importance of cost-effective treatment and rationing of health care resources.

31. Coordinate care with other health care professionals, such as psychiatrists, psychiatric nurses, practice nurses, social workers, psychologists, psychotherapists and pharmacists to enable optimal mental illness and addiction management and rehabilitation.

32. Provide continuity of care and well-timed follow-up.

33. Demonstrate awareness of personal prejudices and negative attitudes and prevent these from interfering with good practice. Understand the need for reflective practice.

34. Demonstrate awareness of personal limitations, refer for advice when necessary, and embrace lifelong learning.

Knowledge base

Symptoms:
Tired all the time, insomnia, anxiety, depression, hallucinations, delusions, any somatic complaints, dizziness, palpitations, paraesthesiae

- Opiate misuse – needle track marks, pinpoint pupils, runny nose, drowsiness
- Stimulant use – agitation, skin ulceration
- Cannabis use – red eyes, irritability, anxiety, panic disorder
● Alcohol-related problems:
  o physical: accidents, victim of violence, obesity, dyspepsia, erectile
dysfunction, fits, foetal alcohol syndrome, liver damage, anaemia,
neurological and central nervous system problems
  o psychological: anxiety, depression, attempted suicide, delirium
tremens
  o social: loss of employment, disorderly conduct, domestic violence,
drink-driving, relationship problems or breakdown.

Common and/or important conditions:
● Learning disabilities: mental retardation, dyslexia, dyscalculia,
attention-deficit hyperactive disorder, pervasive developmental disorder,
communication disorders, conduct disorder
● Encopresis and enuresis
● Affective disorders: depression, dysthymia
● Neuroses: anxiety, phobia, obsessive-compulsive disorder
● Somatoform disorders
● Psychoses: major depression, bipolar disorder, schizophrenia
● Eating disorders
● Post-traumatic stress disorder
● Sexual disorders
● Personality disorders
● Organic psychoses: acute confusional state and dementia
● Alcohol and substance misuse.

Investigations:
● Use of depression rating scales, and other aids in the evaluation of
possible diagnosis and severity
● The use of screening tools for alcohol such as Cut down Annoyed Guilty
Eye-opener (CAGE) and Alcohol Use Disorders Identification Test
(AUDIT)
● Have an understanding of the nature and role of urine, and other tests in
the management of drug treatment

Treatment:
● Pharmacology of commonly used drugs
● Psychological therapies: brief intervention for excess alcohol use,
cognitive behavioural therapy (CBT) and simple behavioural techniques,
problem-solving therapy and basis of systemic and strength-focused
therapies, self-administered therapy
● Specialised treatment (e.g. electro-convulsive therapy)
● Intensive detoxification for alcohol and substance abuse
● Rehabilitation and group therapy for alcohol and substance abuse
Emergency care:
Threatened or attempted suicide, psychosis, panic, aggressive or violent patients, fits, drug overdose/withdrawal, alcohol intoxication and delirium.

Resources:
- The patient him/herself
- The family/careers of the patient and wider social network
- Members of the primary healthcare team, receptionist, practice nurse
- Specialist mental health services: psychiatrist, psychiatric nurse, psychologist, psychotherapist, social worker
- Non-medical agencies (non-professional, lay or voluntary resources)
- When and how the Mental Health Act is used.

Prevention:
- Mental health promotion, especially children, families and adolescents
- Screening of all language-delayed children for pervasive developmental disorder
- Immunisation against hepatitis B
- Use of sterile needles for intravenous drugs
- Care in prescribing narcotic and psychotropic drugs
- Early intervention when risk of violence to self or others
- Legal age limit for drinking alcohol; driving under alcohol influence illegal
- Laws against trafficking illegal substances

Psychomotor skills

Demonstrate:
- Mental state assessment
- Suicide risk assessment
- Drug use risk assessment
- Basic counseling techniques.
Relevant Guidelines:

- **Guide to Mental and Neurological Health in Primary Care**
  (WHO)

- **Anxiety: management in adults**
  (NICE)

- **Depression in children and young people**
  (NICE)

- **Depression: management in primary and secondary care**
  (NICE)

- **Bipolar disorder**
  (NICE; British Association for Psychopharmacology)

- **Obsessive-compulsive disorder**
  (NICE)

- **Post-traumatic stress disorder**
  (NICE)

- **Schizophrenia**
  (NICE)

- **Dementia: supporting people with dementia and their carers in health and social care**
  (NICE)

- **Self-harm: the short-term physical and psychological management and secondary prevention of self-harm**
  (NICE)

- **Brief interventions and referral for smoking cessation in primary care and other settings**
  (NICE)

- **The Management of Harmful Drinking and Alcohol Dependence in Primary Care**
  (SIGN)

- **Drug misuse: psychosocial interventions and opioid detoxification**
  (NICE)
Teaching and learning resources

Work- based learning – in primary care

- Observation and practice of skills such as taking a full history; performing full mental state examination; making a violence risk assessment; promoting healthy lifestyle changes and supporting the patient; formulating a differential diagnosis; negotiating a management plan with the patient and family/carers; intervening promptly in an emergency; prescribing for mental illness and addiction; referring to secondary care (even compulsory admission if necessary) and other mental health professionals when indicated; organising follow-up
- Tutorials on principles of mental disease and addiction epidemiology; prevention; clinical presentation; differential diagnosis; investigation; and management
- Random case analysis of consultations for mental illness or addiction
- Analysis of video recorded consultations for mental illness or addiction
- Using Educational Portfolio to record learning points and reflections.

Work- based learning – in secondary care

- Observation and practice of skills such as taking a full history; performing full mental state examination; making a violence risk assessment; promoting healthy lifestyle changes and supporting the patient; formulating a differential diagnosis; negotiating a management plan with the patient and family/carers; intervening promptly in an emergency; prescribing for mental illness and addiction; observation of specialised treatment (e.g. electro-convulsive therapy); organising follow-up
- Observation of multidisciplinary approach and teamwork
- Tutorials on principles of mental disease and addiction epidemiology; prevention; clinical presentation; differential diagnosis; investigation; and management.
- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
• Interactive half-day release programme sessions about mental illness and addiction, and services available in the community (e.g. Richmond Foundation; Sedqa; Caritas). May include role play for the practice of brief counselling interventions

• Educational visits to centres for detoxification, rehabilitation and residential services

• Conferences and courses (both local and international) dealing with mental illness and addiction

• Informal discussions with trainer and peers

• Learning opportunities with other health care professionals e.g. seminars with psychiatrists, nurses, pharmacists, clinical psychologists, psychotherapists, social workers, occupational therapists etc…

Formative Assessment

• Analysis of video recorded consultations for mental illness or addiction

• Mini-clinical examination e.g. mental state examination

• Directly observed procedures e.g. giving naltrexone

• Analysis of Educational Portfolio.

• Case-Based Discussion on consultations for mental illness or addiction

References:

8. Caritas Malta website: www.caritasmalta.org (last accessed 12.02.09)

Reference Document used as a model:

Royal College of Family Doctors; 2007. Curriculum Statements
- No. 13 – Care of People with Mental Health Problems
- No. 15.3 – Drug and Alcohol Problems

Further Reading:
- Von Korff, Goldberg D (2001) Improving outcomes in depression BMJ; 323: 948–57
Internet resources:

- National Institute for Health and Clinical Excellence: www.nice.org.uk
- National Institute for Mental Health in England:  www.nimhe.org.uk
- Sainsbury Centre for Mental Health: www.scmh.org.uk
- National Autistic Society: www.nas.org.uk
- Counsellors and Psychotherapists in Primary Care: www.cpc-online.co.uk
- Malta Government Health Services: www.sahha.gov.mt
- Caritas Malta: www.caritasmalta.org
- Dar il-Kaptan: www.darilkaptan.org
- Richmond Foundation: www.richmond.org.mt/
- Malta Dementia Society: www.maltadementiasociety.org.mt
Chapter 47.

ENT Problems

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Date: 3rd April, 2009

Reference Document:

RCGP Curriculum Statement No. 15.4 – ENT and Facial Problems
Introduction

Rationale

ENT and facial problems are very common. In Maltese general practice, the diseases in this category encountered most frequently are upper respiratory tract infection, allergic rhinitis, sinusitis (acute and chronic), acute otitis media, vertiginous syndrome, otitis externa, excessive cerumen and serous otitis media.¹ Most of these conditions are managed entirely in primary care. The family doctor must have the necessary knowledge and skills to diagnose and manage these problems properly, referring to the ENT specialist as necessary.

Globally, the prevalence of allergies has increased over the last few decades. However, the ISAAC study, which focused on children aged 6-7yrs and 13-14yrs, showed wide variations in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis and eczema. When 56 different countries where compared, the prevalence of allergic rhinoconjunctivitis symptoms was most frequent in Maltese children (21%).² A local study involving 415 patients presenting with rhinitis of 3 months’ duration showed that 55% were atopic and the most common allergens were house dust mite, cat dander, and grass pollen. Skin-test negative patients were mostly females and tended to present a decade later.³

Although rhinitis may appear to be a trivial illness, it can cause a significant degree of morbidity by impairing social life, school performance cognitive function and work productivity. It also carries a significant cost. In a survey of sufferers of allergic rhinitis, 60% of patients responded that they were “very interested” in finding a new medication and 25% are “constantly” trying different medications to find one that “works”. Those who were dissatisfied with treatment also said that their healthcare provider does not understand their needs and does not take their allergy symptoms seriously. Allergic rhinitis increases the risk of developing asthma by three times and it has been shown that treating allergic rhinitis has beneficial effects on asthma.⁴

Acute rhinosinusitis (even if purulent) is invariably of viral aetiology, and antibiotics are not justified. Symptomatic treatment is adequate. For children with persistent nasal discharge or older children with radiographically confirmed sinusitis, the available evidence suggests that antibiotics given for 10 days will reduce the probability of persistence in the short to medium-term. The benefits appear to be modest and around eight children must be treated in order to achieve one additional cure (NNT 8, 95% CI 5 to 29). No long-term benefits have been documented. These conclusions are based on a small number of small randomised controlled trials and may require revision as additional data become available.⁵
Sinusitis can be treated with antibiotics, decongestants, steroids, mucolytics, antihistamines, or lavage. A Cochrane systematic review on treatments for maxillary sinusitis in adults found that antibiotics have a small treatment effect in patients with uncomplicated acute sinusitis in a primary care setting with symptoms for more than seven days. However, 80% of participants treated without antibiotics improve within two weeks. Clinicians need to weigh the small benefits of antibiotic treatment against the potential for adverse effects at both the individual and general population level.

Surgical removal of the tonsils, with or without adenoidectomy (adeno-/tonsillectomy), is a common ENT operation but the indications for surgery are controversial. For more severely affected children, adeno-/tonsillectomy will avoid three unpredictable episodes of any type of sore throat, including one episode of moderate or severe sore throat in the next year. The cost of this is a predictable episode of pain in the immediate postoperative period. One reason why the impact of surgery is so modest is that many untreated patients get better spontaneously. There is a trade-off for the physician and patient who must weigh up a number of different uncertainties: what proportion of my throat symptoms are attributable to my tonsils, and will I get better without any treatment? Similarly, the potential 'benefit' of surgery must be weighed against the risks of the procedure.

Deafness is a distressing condition and can have a huge impact on quality of life. The family doctor should have basic skills to distinguish conductive from sensorineural deafness, and to manage accordingly. The most common cause of conductive deafness in young children is glue-ear, and the GP should be on the alert to suspect this condition early because it may impair language and speech development. If an adult presents with asymmetrical deafness, they should be referred to an ENT specialist to exclude serious pathology such as acoustic neuroma, cholesteatoma or nasopharyngeal carcinoma.

**Maltese health care priorities**

Acute otitis media in the Maltese islands is commonly managed by immediate prescription of broad-spectrum antibiotics. However, this condition has been shown to resolve spontaneously in 80% of cases even without the use of antibiotics. A large number of studies in the literature together with Cochrane reviews suggest that a ‘wait–and–see’ approach can be used safely in most uncomplicated cases. A prescription for antibiotics is given to the patient on day one, but with instructions to be used only if the condition does not resolve within 72 hours. Naturally, analgesia will be required immediately.

On the other hand, it is recommended that acute otitis media should be treated immediately with antibiotics in these situations:
• in children under 2 yrs of age
• in cases of bilateral otitis
• when systemic symptoms are present (e.g. fever >38.5°C; vomiting)
• local signs suggest severe infection (e.g. very bulging or inflamed tympanic membrane) 

Excessive ear cerumen can cause uncomfortable symptoms including hearing problems, earache, and even dizziness and tinnitus. A Cochrane systematic review of cerumenolytics concluded that there is no evidence to prefer one particular product to any other, and that physiological saline is as effective as any proprietary agent. In fact, many patients present with impaction of a dislodged wax plug after swimming in early summer. Most GPs remove wax by syringing the ears, and this is a skill that should be learnt under supervision. Family doctors also have a role in educating their patients not to introduce cotton-buds or other objects into the ear canal.

Another condition associated with summer is otitis externa. It is commonly acquired after bathing in the sea or swimming pool. Often, a large amount of debris accumulates in the ear canal, and careful aural toilet is a pre-requisite for healing to occur. Great care needs to be taken in diabetics because of the risk of malignant otitis externa due to pseudomonas aeruginosa.

Dizziness affects about 42% of the population at least once in their lifetime, with women more commonly affected and incidence rising with age. Family doctors are often consulted because of acute disabling vertigo. Most of these cases are due to viral labyrinthitis, can be treated with labyrinthine sedatives and are short- limited. However, more sinister pathology such as stroke or tumour may be at work in cases resistant to treatment. Longer lasting vertigo is commonly caused by benign paroxysmal positional vertigo (BPPV) or Ménière’s syndrome, but acoustic neuroma needs to be excluded in this setting.

BPPV is diagnosed from the history (feeling of vertigo with sudden changes in positions); and by performing the Dix-Hallpike manoeuvre which is diagnostic. The treatment of choice is the Epley canalith repositioning manoeuvre which is effective in approximately 80% of patients. The treatment employs gravity to move the calcium build-up that causes the condition. Epley’s manoeuvre can be performed during a clinic visit by specially trained personnel. The manoeuvre is relatively simple but few GPs know how to perform it. The Semont manoeuvre and the Brandt-Daroff exercises are methods by which patients themselves are able to achieve canalith repositioning.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with an ENT problem. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with an ENT problem. Manage simultaneously both acute and chronic problems in the patient.

2. Adopt a person-centred approach in dealing with patients with ENT problems in the context of the patient's circumstances.

3. Identify the patient’s health beliefs regarding ENT problems and either reinforce, modify or challenge these beliefs as appropriate.

4. Appreciate the importance of the social and psychological impact of ENT disease on the patient, his/her family, friends, dependants and employers.

5. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic illness.

6. Describe strategies for communicating effectively with patients with hearing impairment and deafness, e.g. remembering to face the patient and speaking clearly so that they can lip-read.

7. Perform a complete examination of the ears, nose, sinuses, mouth, throat, head and neck, including otoscopy and basic tests for hearing and balance.

8. Identify symptoms that are within the range of normal and require no treatment, e.g. cyclical blocking of nose, senile rhinorrhea, small neck lymph nodes in well children.

9. Demonstrate knowledge of the epidemiology of ENT problems in the local community to assist diagnosis.

10. Demonstrate awareness that certain ENT symptoms can indicate psychological distress, e.g. globus – sensation of not swallowing in a patient who can swallow, the ‘dizzy’ patient who can walk without difficulty.
11. Describe how the mouth and the ears may be involved in systemic disease.

12. Recognize that diabetics are at a high risk for malignant otitis externa.

13. Apply sound evidence-based criteria to assess severity of ENT disease, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.

14. Perform ear syringing safely.

15. Discourage the introduction of cotton-buds or other objects into the ear canal. Encourage wearing of ear protection to prevent occupational deafness.

16. Recognize that many diseases cause facial pain, and demonstrate ability to properly diagnose and manage these.

17. Be careful to diagnose glue-ear that is causing hearing impairment in young children so as to refer for early specialized treatment.

18. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from ENT disease, particularly of chronic nature.

19. Empower patients to adopt self-treatment and coping strategies where possible, e.g. hay fever, nosebleeds, dizziness, tinnitus.

20. Demonstrate a consistent, evidence-based approach to drug prescribing for ENT disease, including the use of topical and systemic analgesics, antibiotics, decongestants, glucocorticoids and antihistamines.

21. Be aware that most cases of upper respiratory tract infection and acute otitis media are of viral aetiology, and immediate prescription of antibiotics may cause more harm than good.

22. Exercise caution to exclude tympanic membrane perforation before prescribing ototoxic ear drops or perfuming ear syringing.

23. Describe the alarm symptoms for head and neck cancer, e.g. hoarseness persisting for more than six weeks, ulceration of oral mucosa persisting for more than three weeks.

24. Coordinate care with other health care professionals, such as ENT specialist, dentist, audiologist, nurse, physiotherapist and pharmacist to enable optimal management of ENT problems.
25. Facilitate patients’ access to sources of social benefits and services for the deaf.

26. Recognise that patients with hearing impairment often have difficulty communicating and accessing healthcare services and implement measures to overcome these obstacles to effective health care.

27. Assess the likelihood of occupational exposure as a cause of ENT disease (e.g. industrial deafness).

28. Notify the following conditions to the Infectious Disease Prevention and Control Unit, doing so urgently when there is a risk of spread of serious infection: 
   - AIDS, antimicrobial resistance, diphtheria, haemophilus influenza group B, HIV, influenza, mumps, scarlet fever, tuberculosis.

### Knowledge base

**Symptoms:**
- Plugged ear, otalgia, discharging ear, hearing loss vertigo, tinnitus, rhinitis, nasal congestion, epistaxis, mouth ulcers, glossitis, gingivitis, sore throat, cough, hoarseness, dysphagia, neck swellings, speech delay, foreign bodies, facial pain, facial weakness.

**Common and/or important conditions:**
- Otitis media (suppurative/serous), otitis externa, perforated tympanic membrane, cholesteatoma
- Labyrinthitis, benign paroxysmal positional vertigo, Ménière’s disease
- Bell’s palsy, temporo-mandibular joint pain, trigeminal neuralgia
- Pharyngitis, tonsillitis, laryngitis, glandular fever, oral candida, herpes simplex, gingivitis, gastro-oesophageal reflux disease
- Salivary gland stones, mumps, tumours
- Infective and allergic rhinitis; sinusitis (acute and chronic); nasal polyps
- Nasal septum deviation/perforation
- Snoring and sleep apnoea
- Otosclerosis
- Oral cancer, nasopharyngeal carcinoma, acoustic neuroma

**Investigations:**
- Examination of the mouth, nose, face, neck, ear (including otoscopy)
- Tuning fork tests: Weber and Rinne’s tests
- Awareness of: caloric testing; pure tone threshold audiogram; speech audiometry, impedance tympanometry, auditory brain-stem responses and otoacoustic emissions
Investigations may delay referral in suspected head and neck cancer

**Treatment:**
- Watchful waiting and use of delayed prescriptions
- Knowledge of the commonly used topical and systemic antibiotics, decongestants, antihistamines, glucocorticoids and their indications, contraindications, dosage regimens, duration of treatment and possible adverse effects
- Fractured nose (need manipulation under anaesthetic within two weeks for optimum result)
- Specialised treatment including hearing aids, surgery (e.g. indications for adeno-tonsillectomy)

**Emergency care:**
Ability to recognise and institute primary management of ENT emergencies and refer appropriately:
- Septal haematoma
- Epistaxis
- Tonsillitis with quinsy
- Otitis externa if extremely blocked or painful
- Foreign body
- Auricular haematoma or perichondritis.

**Prevention:**
- Screening for hearing impairment in adults and children
- Genetics: otosclerosis
- Smoking cessation
- Educating about avoiding insertion of cotton-buds or other objects into ear canal
- Wearing ear protection to avoid occupational deafness
- Awareness of iatrogenic causes of ototoxicity.

**Community Orientation:**
- Know about the ADT driving regulations for hearing problems
- Know about sources of social support for the deaf child:
  - the ‘statementing’ process for children with special educational needs
  - schooling requirements and role of peripatetic teachers
  - teaching of sign language
  - career guidance for deaf children.
- Know about sources of social support for visually impaired adults:
  - social services and benefits
  - services provided by the National Commission for Disability
  - services provided by local voluntary organizations (e.g. Deaf People association)
  - hearing aids.
Psychomotor skills:

- Examination of the mouth, nose and face
- Examination of the ear including otoscopy
- Demonstrate Dix-Hallpike manoeuvre and Epley’s manoeuvre
- Demonstrate tuning fork tests (Weber and Rinne’s tests)
- Ear syringing
- Removal of foreign bodies from mouth, throat, nose and ear
- Taking throat and nose swabs.

Relevant Guidelines:

- *Rhinitis Management Guidelines*  (Standards of Care Committee, British Society for Allergy and Clinical Immunology)
- *Respiratory tract infections: antibiotic prescribing*  (NICE)
- *Emergencies in Otolaryngology – a Casualty Guidebook*  
  (Gatt AS 2006)
- *Management guidelines for herpes simplex*  
  (Herpes Viruses Association)
- *Management of Obstructive Sleep Apnoea/ Hyperpnoea in Adults*  
  (Scottish Intercollegiate Network)
- *Referral guidelines for suspected cancer*  (NICE)
Teaching and learning resources

Work- based learning – in primary care

- Observation and practice of skills such as complete examination of the mouth, nose, ears, head and neck; formulating a differential diagnosis; negotiating a management plan with the patient/carer; removing foreign bodies; performing ear syringing; prescribing for ENT disease; illustrating how to use ear drops and nasal sprays; referring to secondary care when indicated.

- Tutorials on principles of ENT disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.

- Random case analysis of consultations for an ENT condition.

- Analysis of video recorded consultations for an ENT problem

- Using Educational Portfolio to record learning points and reflections.

Work- based learning – in secondary care

- Observation and practice of skills such as complete examination of the mouth, nose, ears, head and neck; formulating a differential diagnosis; negotiating a management plan with the patient/carer; removing foreign bodies; performing ear syringing; prescribing for ENT disease; illustrating how to use ear drops and nasal sprays; interpreting radiology and audiometry results.

- Observe procedures such as tonsillectomy and aftercare

- Observation of multidisciplinary approach and teamwork

- Tutorials on principles of ENT disease epidemiology; clinical presentation; differential diagnosis; investigation; and management

- Using Educational Portfolio to record learning points and reflections.

Other learning opportunities:

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources

- Interactive half-day release programme sessions about ENT conditions e.g. meeting representatives of the Deaf People Association

- Conferences and courses (both local and international) dealing with ENT pathology
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with ENT specialists, audiologists, nurses, physiotherapists, pharmacists, etc…

**Formative Assessment**

• Analysis of video recorded consultations for an ENT condition
• Mini-clinical examination e.g. otoscopy, tuning-fork tests, Dix-Hallpike manoeuvre
• Directly observed procedures e.g. ear syringing
• Analysis of Educational Portfolio
• Case-Based Discussion on consultations for an ENT condition
• Patient satisfaction questionnaire
• Multi-source feedback.

**References:**

12. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health.

**Reference Document used as a model:**
Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.4 – ENT and Facial Problems*

**Further Reading:**


**Internet Resources:**

- British Deaf Association: www.britishdeafassociation.org.uk
- BMJ Topic collections ENT references: http://bmj.bmjournals.com/cgi/collection/otolaryngology
- British Sign Language: www.britishsignlanguage.com
- British Tinnitus Association: www.tinnitus.org.uk
- Clinical Evidence: www.clinicaledge.com/ceweb/conditions/ent/ent.jsp
- Ménière’s Society: www.menieres.org.uk
  www.phel.gov.uk/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
- Royal National Institute for Deaf People: www.rnid.org.uk
Chapter 48.

Eye Problems

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Date: 10th January, 2009

Reference Document:

RCGP Curriculum Statement No. 15.5 – Eye Problems
Introduction

Rationale

Eye problems are common. In Maltese general practice, the ophthalmic diseases encountered most frequently are infectious conjunctivitis, blepharitis, stye, chalazion, allergic conjunctivitis, foreign body and cataract. Most of these conditions are managed entirely in primary care. The family doctor must have the necessary knowledge and skills to diagnose and manage eye problems properly, referring to the ophthalmologist, optometrist or optician as necessary.

Due to an ageing population, the incidence of cataracts is ever on the increase. Today, cataract surgery has become a simple operation that can be done under local anaesthesia, involves the use of an implant, and the time required for recovery is short. This operation dramatically improves vision and quality of life.

In the UK some form of glaucoma affects about two in 100 people over the age of 40 and five in 100 people over the age of 75. Some groups are more susceptible to developing glaucoma; these include people of with a family history, people over 40 and people with severe myopia. Glaucoma gives no symptoms in its early stages and up to 40 per cent of useful sight can be lost before a person realises that he or she has the condition. Screening susceptible adults and regular eye tests are crucial in detecting glaucoma early. Once diagnosed, treatment can be initiated and further sight loss can be minimized. In Malta, a free screening programme for glaucoma is offered to all adults aged over 40 years at the Government Health Centres.

The family doctor is often called on to examine visual acuity for the scope of certifying fitness to drive. Therefore, he/she should be able to use a Snellen chart properly and must be familiar with the minimum vision required by law to hold a driving licence.

The use of contact lenses has become very common. If the wearer does not take care to disinfect his/her lenses properly, or wears them for too long, eye irritation, corneal abrasion, ulceration or serious keratitis may develop. Indeed, a local study revealed that 13.1% of storage lens cases and 5.1% of commercial solutions in use by contact lens wearers were positive for Pseudomonas aeruginosa on microbiological culture.

Refractive surgery is an innovative approach to correcting the common errors of refraction. Modern refractive surgery is very safe, accurate and predictable. Almost all patients will achieve the stated goal of significantly reducing or eliminating dependency on eyeglass or contact lens correction for distance vision. The most highly regarded refractive surgical option is LASIK (laser assisted in-situ keratomileusis). Altering the surface contour of the cornea to
flatten or steepen the curvature of its central zone is the basis of all refractive surgical procedures. The family doctor should know about this new technology in order to give correct advice to his/her patients.

**Maltese health care priorities**

Globally, the prevalence of allergies has increased over the last few decades. However, the ISAAC study, which focused on children aged 6-7yrs and 13-14yrs, showed wide variations in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis and eczema. When 56 different countries where compared, the prevalence of allergic rhinoconjunctivitis symptoms was most frequent in Maltese children (21%).

Allergic conjunctivitis can be readily treated using topical anti-histamine or mast-cell stabilizer eye drops.

Diabetes mellitus affected about 9.2% of the Maltese population in 2003, and this is projected to increase to 11.6% by 2025, because of the rising prevalence of obesity and an ageing population. Diabetic retinopathy is the leading cause of blindness in the developed world. Blindness greatly impairs the independence, mobility and quality of life of a patient.

Treatment modalities exist that can prevent or delay the onset of diabetic retinopathy, as well as prevent loss of vision, in a large proportion of patients with diabetes. The DCCT and the UKPDS established that glycaemic and blood pressure control can prevent and delay the progression of diabetic retinopathy in patients with diabetes. Timely laser photocoagulation therapy can also prevent loss of vision in a large proportion of patients with severe NPDR and PDR and/or macular edema. Because a significant number of patients with vision-threatening disease may not have symptoms, ongoing evaluation for retinopathy is a valuable and required strategy.

GPs play a vital role in the diagnosis of diabetes, the strict control of blood glucose and blood pressure, and periodic referral to an ophthalmologist for monitoring of eye complications. The family doctor should also be competent and confident in ophthalmoscopy.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with eye problems. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Manage primary care contact with any patient who presents with an eye problem. Manage simultaneously both acute and chronic problems in the patient.

2. Adopt a person-centred approach in dealing with patients with eye problems in the context of the patient’s circumstances.

3. Identify the patient’s health beliefs regarding eye problems and either reinforce, modify or challenge these beliefs as appropriate.

4. Appreciate the importance of the social and psychological impact of eye disease on the patient, his/her family, friends, dependants and employers.

5. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with chronic illness or visual impairment.

6. Describe the normal appearance, neurological and motor responses in patients from newborns to the elderly

7. Perform a complete examination of the eyes and their function, including ophthalmoscopy and visual acuity.

8. Demonstrate knowledge of the relative prevalence of eye problems in the local community to assist diagnosis.

9. Describe how the eyes may be involved in neurological or systemic disease.

10. Recognize that diabetics are at a high risk for retinopathy, glaucoma and blindness, and that this risk can be significantly reduced with proper management. Describe who and when to refer for screening.

11. Apply sound evidence-based criteria to assess severity of eye disease, to decide when to refer a patient to secondary care and whether the referral should be as an emergency, urgent or routine appointment.
12. Remove a subtarsal foreign body or a superficial corneal foreign body using local anaesthetic eye drops. Encourage the use of protective goggles to avoid occupational injury.

13. Recognize that many diseases cause a red eye, and demonstrate ability to properly diagnose and manage these.

14. Negotiate a realistic and comprehensive management plan in partnership with patients who suffer from eye disease, particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable.

15. Demonstrate a consistent, evidence-based approach to drug prescribing for eye disease, including the use of topical lubricants, antibiotics, glucocorticoids, antihistamines and mast cell stabilizers.

16. Exercise caution to exclude herpetic keratitis and glaucoma before prescribing topical glucocorticoids, and educate the patient on their proper use.

17. Be aware that many drugs are contra-indicated in patients who suffer from glaucoma.

18. Coordinate care with other health care professionals, such as ophthalmologist, optometrist, optician, nurse, occupational therapist and pharmacist to enable optimal management of eye problems.

19. Describe the ADT driving regulations for people with visual problems. Be able to balance the autonomy of patients with visual problems and public safety.

20. Facilitate patients’ access to sources of social support for the visually impaired.

21. Recognise that patients with visual impairment may have difficulty receiving written information and accessing healthcare services and implement measures to overcome these obstacles to effective health care.

**Knowledge base**

**Symptoms:**
- red eye, lacrimation, eye pain, eye discharge, photophobia, visual disturbance, reduced visual acuity
Common and/or important conditions:

- **Disorders of the lids and lacrimal drainage apparatus:** blepharitis, stye, chalazion, entropion and ectropion, basal-cell carcinoma, naso-lacrimal obstruction and dacryocystitis

- **External eye disease: sclera, cornea and anterior uvea:** conjunctivitis (infective and allergic), dry eye syndrome, episcleritis and scleritis, corneal ulcers, keratitis, iritis and uveitis

- **Disorders of refraction:** cataract, myopia, hypermetropia, astigmatism, principles of refractive surgery, problems associated with contact lenses

- **Disorders of aqueous drainage:** acute angle closure glaucoma, primary open angle glaucoma, secondary glaucomas

- **Vitreo-retinal disorders:** flashes and floaters, diabetic retinopathy, vitreous detachment, vitreous haemorrhage, retinal detachment

- **Disorders of the optic disc and visual pathways:** swollen or atrophic optic disc (recognition and differential diagnosis), pathological cupping of the optic disc, migraine, transient ischaemic attacks

- **Eye movement disorders and problems of amblyopic binocularity:** diplopia, non-paralytic and paralytic strabismus

Investigations:

- Examination of the eye assessing both structure and function
- Understand the appropriate investigations to exclude systemic disease, e.g. erythrocyte sedimentation rate (ESR) test for temporal arteritis, chest X-ray for sarcoidosis, etc.
- Know the secondary care investigations and treatment including slit lamp, eye pressure measurement, visual field mapping.

Treatment:

- Understand and be able to explain to the patient about the use of medications including mydriatics, topical anaesthetics, corticosteroids, antibiotics, glaucoma agents
- Removal of superficial foreign bodies from the eye
- Know about optical prostheses, surgical and laser treatments used in secondary care.
Emergency care:
Ability to recognise and institute primary management of ophthalmic emergencies and refer appropriately:
- superficial ocular trauma, including assessment of foreign bodies, abrasions and minor lid lacerations
- arc eye
- severe blunt injury, including hyphaema
- severe orbital injury, including blow-out fracture
- penetrating ocular injury and tissue prolapse
- retained intra-ocular foreign body
- sudden painless loss of vision
- severe intra-ocular infection
- acute angle closure glaucoma.

Prevention:
This will involve the following risk factors:
- Genetics – family history e.g. glaucoma, diabetes mellitus, retinoblastoma
- Co-morbidities especially diabetes and hypertension

Community Orientation:
- Know about the ADT driving regulations for visual problems
- Know about sources of social support for the visually impaired child:
  - the ‘statementing’ process for children with special educational needs
  - schooling requirements and role of peripatetic teachers
  - career guidance for visually impaired children.
- Know about sources of social support for visually impaired adults:
  - RNIB, talking-book services
  - Social Services and benefits
  - services provided by local voluntary organizations (e.g. Malta Society of the Blind)
  - low vision aids.

Psychomotor skills
Demonstrate complete examination of the eye, assessing both structure and function, including:
- measurement of visual acuity
- pinhole testing
- external examination of the eye
- eversion of eyelid
- examination of the pupil and assessment of the red reflex
• assessment of ocular movements and cover testing
• visual field testing by confrontation
• direct ophthalmoscopy
• colour vision testing
• fluorescein staining of the cornea
• removal of subtarsal and corneal foreign bodies

Relevant Guidelines:

- *Ophthalmology Hospital Referral and Management Guidelines*
  available at:
  (last accessed 11.01.09)
- *Recommendations for the provision of services in primary care for people with diabetes*  (Diabetes UK)

Teaching and learning resources

Work-based learning – *in primary care*

• Observation and practice of skills such as complete examination of the eyes; removing foreign bodies; formulating a differential diagnosis; negotiating a management plan with the patient/carer; prescribing for eye disease; illustrating how to use eye drops; referring to secondary care when indicated.

• Tutorials on principles of eye disease epidemiology; clinical presentation; differential diagnosis; investigation; and management.

• Random case analysis of consultations for an eye condition.

• Analysis of video recorded consultations for an eye problem

• Using Educational Portfolio to record learning points and reflections.

Work-based learning – *in secondary care*

• Observation and practice of skills such as complete examination of the eyes (including slit-lamp and intra-ocular pressure); removing foreign bodies; formulating a differential diagnosis; negotiating a management plan with the patient/carer; prescribing for eye disease; illustrating how to use eye drops.
• Observe procedures such as surgery for cataract and laser treatment for retinopathy
• Observation of multidisciplinary approach and teamwork
• Tutorials on principles of eye disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
• Using Educational Portfolio to record learning points and reflections.

Other learning opportunities
• Private study of GP textbooks, current guidelines, BNF, journals and internet resources
• Interactive half-day release programme sessions about ophthalmic conditions
• Conferences and courses (both local and international) dealing with eye pathology
• Informal discussions with trainer and peers
• Learning opportunities with other health care professionals e.g. seminars with ophthalmologists, optometrists, opticians, nurses, pharmacists, etc…

Formative Assessment
• Analysis of video recorded consultations for an eye condition
• Mini-clinical examination e.g. examination of the eyes
• Directly observed procedures e.g. removing a subtarsal foreign body
• Analysis of Educational Portfolio
• Case-Based Discussion on consultations for an ophthalmic condition.

References:


6. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health.

**Reference Document used as a model:**

Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.5 – Eye Problems*

**Further Reading:**


**Internet Resources:**

- International Guidelines updated regularly at: www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information: http://cks.library.nhs.uk/home
Chapter 49.

Skin Problems

Author: Dr Daniel Sammut MD MMCFD

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Reference Document:

RCGP Curriculum Statement No. 15.10 – *Skin Problems*
Introduction

Rationale

The management of skin problems in primary care is a key competence for general practice. In the Maltese Islands, 7% of consultations in primary care relate to dermatological problems, compared to 15% in the UK.\(^1,2\) This difference may be attributed to the fact that many Maltese patients directly access a dermatologist in private practice, thus ‘skipping’ the GP. Obviously, this practice is costly to the patient and the self referral may be inappropriate. The vast majority of skin problems can be entirely managed by family doctors in primary care, relieving pressure on secondary care services.

Since the skin is our interface with the outside world and our appearance expresses our personality, any skin disfigurement may cause considerable psychological distress and social impairment. This is particularly true of chronic skin conditions such as psoriasis, acne, eczema and vitiligo. Pruritus is a very distressing symptom that often disrupts sleep. The skilled GP should be able to empathize with, and try to alleviate, this silent suffering.

Skin problems are a common reason for injury, loss of school attendance, time off work and disablement benefits. Therefore, the economic impact of these conditions is considerable.

Traditionally, undergraduate and postgraduate training in skin problems has been very limited. Many GPs who are practising today have never been exposed to an attachment in dermatology, and they had to learn by osmosis, through trial-and-error, CME courses and personal initiatives. The aim of this module is to correct this deficiency by increasing the knowledge, skills, and confidence of family doctors when dealing with patients who have skin conditions.

Maltese health care priorities

Aquilina et al. conducted an interesting survey of the outpatient service provided by a consultant dermatologist at the national dermatology department at Sir Paul Boffa Hospital. Overall, the commonest conditions seen were chronic leg ulcers, psoriasis, skin infections and seborrheic keratoses. Private GPs and government doctors based in health centres accounted for 51% and 29% of all referrals respectively. Hospital doctors referred 8% of patients. A diagnosis was offered in 65% of referral notes, more frequently in the case of referrals from private as compared to health centre GPs. Of the referral notes with a tentative diagnosis, 44% had a diagnosis matching the one given by the dermatologist at the patient’s first visit; the difference in results between health centre GPs,
private GPs and other hospital doctors was not statistically significant. Treatment was attempted prior to referral in 64% of patients with acne but in only 15% of patients with viral warts.³

Dermatological infections (viral, bacterial, fungal) and parasitic infestations are frequently seen by GPs. Apart from the impact on the physical, psychological and social health of the individual and his family, some of these diseases should be notified to the Disease Surveillance Unit on the appropriate form (see below).

Proper care of wounds, ulcers, burns and scalds requires a good knowledge of the normal healing process, and the ability to recognize abnormal signs. In this way, the best conditions can be provided to promote healing (e.g. debridement, suturing, special dressings, bandaging). The help of a practice nurse or community nurse is invaluable in these situations.

In the Maltese islands, the average incidence of malignant melanoma is 33 cases per year, with a five year survival of 82.7%.⁴ Non-melanocytic skin cancer is more common. GPs need to be alert to ‘red flag’ characteristics in order to differentiate these serious conditions from banal benign lesions in order to refer these cases urgently for investigation and treatment in secondary care.

In Malta, intensive educational campaigns are held every spring/summer using the mass media, billboards, posters, leaflets and stickers, and sun exposure education sessions in schools. These campaigns have been held since the early 1990s, and have, in the year 2000, given way to the EuroMelanoma campaign. This is locally coordinated through the collaboration of the public Dermatology Department, the local Dermatology Association, and the government Department of Health Promotion and Disease Prevention. The family doctor’s role to continually reinforce the message of sun protection is important and should not be underestimated or ignored.⁵

Topical treatment is the main mode of drug delivery for skin disease. The family doctor needs to be very familiar with the different forms of topical treatment, the dosage, and duration of treatment for the clinical condition. Moreover, the GP should clearly explain to the patient how to apply the treatment to achieve the best results.

Systemic disease frequently manifests itself in the skin. Therefore, it is imperative that the doctor takes a full history and carries out a general physical examination. Failing to do this may lead to missing important systemic illnesses such as autoimmune conditions, systemic infection or neoplasia.

Chronic skin disease requires an interdisciplinary approach to achieve the best outcome for the patient. For this reason, the family doctor should liaise closely with the dermatologist, practice nurse, community nurse, and pharmacist.
Learning Outcomes

The following learning objectives relate specifically to the family doctor's role in the diagnosis and management of patients presenting with symptoms and signs that point to disease in the skin. The outcomes describe the knowledge, skills and attitudes that the trainee should learn during his/her training.

By the end of the specialist training, the trainee is expected to:

1. Educate people about skin protection from sunlight, about skin care and personal hygiene. Identify the patient’s health beliefs regarding skin problems and either reinforce, modify or challenge these beliefs as appropriate.

2. Manage primary care contact with any patient who presents with a skin problem.

3. Appreciate the importance of the social and psychological impact of skin problems on the patient, his/her family, friends, dependants and employers.

4. Demonstrate adequate consulting skills to solicit a good history from the patient and his/her relatives, and show empathy and compassion in the approach towards patients with skin disease.

5. Demonstrate knowledge of the relative prevalence of skin problems in the local community to assist diagnosis.

6. Recognize particular groups of patients at higher risk of acquiring skin infections (e.g. school age children, asylum seekers, diabetics, poor personal hygiene).

7. Perform a complete examination of the skin, hair and nails.

8. Recognize that systemic disease frequently manifests itself in the skin, and be careful not to miss it.

9. Describe how medicines can cause dermatological adverse events.

10. Apply sound evidence-based criteria to assess severity of skin disease, to decide when to refer a patient to secondary care and whether the referral should be as an urgent or routine appointment.

11. Demonstrate an evidence-based approach towards investigation and management of skin problems.
12. Explain the role of blood investigations, Wood’s light, skin scrapings, nail specimens, skin biopsy and excision biopsy in the diagnosis of skin disease.

13. Intervene urgently to assess and properly treat superficial wounds, burns and scalds. Explain when to refer to secondary care.

14. Describe the different types of suturing materials and needles, and state when to use which. Demonstrate disinfection, aseptic technique, local anaesthesia, and suturing in different situations. Explain to the patient how to care for the wound, and when to return for removal of sutures.

15. Administer tetanus immunization correctly when indicated.

16. Explain indications and demonstrate technique how to perform curettage, cryosurgery and cauterization. Show care in trying to achieve a good cosmetic result. Describe what follow up may be necessary.

17. Explain indications and demonstrate technique how to perform minor surgery for skin lesions and surgery for ingrown toenail. Show care in trying to achieve a good cosmetic result. Describe what follow up may be necessary.

18. Negotiate a realistic and comprehensive management plan in partnership with the patient (or guardian/s) who suffers from skin disease, particularly of chronic nature. Empower patients to self-manage their conditions as far as practicable.

19. Recognize that malignant melanoma is an important cause of preventable morbidity and mortality. Diagnose ‘red-flag’ changes and refer promptly and urgently.

20. Show wide knowledge of the pharmacological treatment options for skin disease. Demonstrate a consistent, evidence-based approach to drug prescribing for skin conditions, including the use of antibiotics.

21. Explain and illustrate to the patient how to use and apply topical treatment e.g. shampoo, cream, occlusive dressing.

22. Coordinate care with other health care professionals, such as dermatologist, practice nurse, community nurse, tissue viability nurse and pharmacist to enable chronic disease management and rehabilitation.

23. Take measures to prevent spread of skin infections or infestations and communicate with school staff or employer when necessary.
24. Assess the likelihood of occupational exposure as a cause of skin disease (e.g. contact eczema) and make appropriate recommendations.

25. Notify the following conditions to the Infectious Disease Prevention and Control Unit:  
   - AIDS
   - Anthrax
   - Antimicrobial resistance
   - Erysipelas
   - Chickenpox/ shingles
   - Leishmaniasis
   - Leprosy
   - Measles
   - Plague
   - Rubella
   - Scarlet fever
   - Smallpox

**Knowledge base**

**Symptoms:**
Key issues in the diagnosis of skin problems will be eliciting of the appropriate signs and symptoms and subsequent management and/or referral of people presenting with:
- Rashes
- Hair loss
- Disorders of the nails
- Pruritus
- Pigmented skin lesions and depigmentation
- Signs of infection of the skin
- Bruising or purpura
- Lumps in and under the skin
- Photosensitivity and the red face.
- Wounds
- Ulcers
- Burns and Scalds

**Common and/or important skin conditions:**
- Eczema (atopic, seborheic, contact)
- Psoriasis
- Generalised pruritus
- Urticaria and vasculitis
- Acne and rosacea
- Infections (bacterial, viral and fungal)
- Pityriasis rosea
- Infestations including scabies and head lice
- Leg ulcers
- Lymphoedema
- Skin tumours (benign and malignant)
- Disorders of hair and nails
- Drug eruptions
- Other less common conditions such as the bullous disorders, lichen planus, vitiligo, photosensitivity, pemphigus, pemphigoid, discoid lupus, granuloma annulare and lichen sclerosus.

**Investigations:**
- Use of Wood’s light
- Ability to take specimens for mycology from skin, hair and nail
- Role of Skin biopsy
- Basic interpretation of histology reports

**Treatment:**
- Those commonly used in primary care (including an awareness of appropriate quantities to be prescribed and how to apply them)
- Principles of protective care (sun care, occupational health and hand care)
- An awareness of specialised treatments, such as retinoids, ciclosporin, phototherapy and methotrexate
- The indications for, and the skills to perform, curettage, cautery and cryosurgery.
- Minor surgery for skin lesions and ingrown toenail

**Emergency care:**
Acute treatment of people presenting with skin problems or symptoms thought to be due to skin problems and appropriate referral if necessary. Including:
- wound disinfection, debridement, suturing and aftercare
- burn and scald care
- angioedema and anaphylaxis
- meningococcal sepsis
- disseminated herpes simplex
- erythroderma
- pustular psoriasis
- severe nodulo-cystic acne
- toxic epidermal necrolysis
- Stevens-Johnson syndrome
- necrotising fasciitis.

**Prevention:**
This will involve the following risk factors:
- Sun exposure
• Fixed factors: family history and genetics
• General and hand hygiene
• Occupation and care of the hands.

Genetics:
• Describe how genetic factors influence the inheritance of common diseases such as psoriasis and atopic eczema.

**Relevant Guidelines**

- *Antimicrobial Prescribing Guidelines*  
  (Antibiotic Team, Government Health Services 2004)
- *Skin and Soft Tissue Infection Diagnosis and Management*  
  (Infectious Disease Society of America)
- *Atopic eczema in children: management*  
  (NICE)
- *Management of atopic eczema*  
  (Primary Care Dermatology Society & British Association of Dermatologists)
- *Recommendations for the initial management of psoriasis*  
  (Primary Care Dermatology Society & British Association of Dermatologists)
- *Management of shingles*  
  (British Infection Society)
- *Management of chronic urticaria and angio-oedema*  
  (British Society for Allergy and Clinical Immunology)
- *The prevention and treatment of pressure ulcers*  
  (NICE)
- *Strategy for lymphoedema care*  
  (British Lymphology Society)
- *Referral guidelines for suspected cancer*  
  (NICE)

**Teaching and learning resources**

**Work-based learning – in primary care**

• Observation and practice of skills such as examination of the skin, nails and hair; taking skin scrapings; formulating a differential diagnosis; interpreting laboratory and histology results; negotiating a management plan; prescribing for skin disease; illustrating how to apply topical
treatment; incision and drainage of abscess; wound and burn care; curettage; cauterization; cryosurgery; minor surgery

- Tutorials on principles of disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
- Random case analysis of consultations for a skin condition
- Analysis of video recorded consultations for a skin condition
- Using Educational Portfolio to record learning points and reflections.

**Work - based learning – in secondary care**

- Observation and practice of skills such as examination of the skin, nails and hair; taking skin scrapings; formulating a differential diagnosis; interpreting laboratory and histology results; negotiating a management plan; prescribing for skin disease; illustrating how to apply topical treatment; wound and burn care; curettage; cauterization; cryosurgery; minor surgery
- Observation of multidisciplinary approach and teamwork
- Tutorials on principles of disease epidemiology; clinical presentation; differential diagnosis; investigation; and management
- Using Educational Portfolio to record learning points and reflections.

**Other learning opportunities**

- Private study of GP textbooks, current guidelines, BNF, journals and internet resources
- Interactive half-day release programme sessions about dermatological conditions
- Conferences and courses (both local and international) dealing with skin pathology
- Informal discussions with trainer and peers
- Learning opportunities with other health care professionals e.g. seminars with dermatologists, nurses, pharmacists, etc...
Formative Assessment

- Analysis of video recorded consultations for a skin condition
- Mini-clinical examination e.g. skin, nail and hair examination
- Directly observed procedures e.g. taking skin scrapings; wound and burn care; curettage; cauterization; cryosurgery; minor surgery
- Analysis of Educational Portfolio
- Case-Based Discussion on consultations for a skin condition
- Patient Satisfaction Questionnaire.

References:

6. Infectious Disease Certificate DPH 35. Disease Surveillance Unit - Department of Public Health

Reference Document used as a model:

Royal College of Family Doctors; 2007. *Curriculum Statement No. 15.10 – Skin Problems*
Further Reading:


Internet resources:

- International Guidelines updated regularly at:  www.clinicalguidelines.org/
- NHS Clinical Knowledge Summaries (formerly PRODIGY) are a reliable source of evidence-based information:  http://cks.library.nhs.uk/home
Appendix 1: Appraisal of the Core Competencies

<table>
<thead>
<tr>
<th>1</th>
<th>Communication and consultation skills</th>
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<td></td>
<td>This competency is about communication with patients, and the use of recognised consultation techniques.</td>
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<tr>
<td>1</td>
<td>Needs further development</td>
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<tr>
<td>2</td>
<td>Develops a working relationship with the patient, but one in which the problem rather than the person is the focus.</td>
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<td>3</td>
<td>Produces management plans that are appropriate to the patient’s problem.</td>
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<td>4</td>
<td>Competent</td>
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<td>5</td>
<td>Explores the patient's agenda, health beliefs and preferences.</td>
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<td>6</td>
<td>Elicits psychological and social information to place the patient's problem in context.</td>
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<td>Excellent</td>
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<td>8</td>
<td>Incorporates the patient's perspective and context when negotiating the management plan.</td>
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<td>9</td>
<td>Whenever possible, adopts plans that respect the patient's autonomy.</td>
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| Achieves the tasks of the consultation but uses a rigid approach |
| Provides explanations that are relevant and understandable to the patient, using appropriate language. |

Where to find the evidence
- COT
- MSF
- Other (naturally occurring evidence)

Sufficiency of evidence (over year)
- Minimum 12 observed consultations
- Minimum 2 feedback reports
## Practising holistically

This competency is about the ability of the doctor to operate in physical, psychological, socioeconomic and cultural dimensions, taking into account feelings as well as thoughts.

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- **Enquires into both physical and psychological aspects of the patient's problem.**
- **Recognises the impact of the problem on the patient.**
- **Uses him/herself as the sole means of supporting the patient.**

- **Demonstrates understanding of the patient in relation to their socioeconomic and cultural background.**
- **Additionally, recognises the impact of the problem on the patient's family/carers.**
- **Utilises appropriate support agencies (including PHCT members) targeted to the needs of the patient.**

- **Uses this understanding to inform discussion and generate practical suggestions for patient management.**
- **Recognises and shows understanding of the limits of the doctor's ability to intervene in the holistic care of the patient.**
- **Organises appropriate support for the patient's family and carers.**

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*Please note that in all the areas the higher levels of ability incorporate the lower competencies. To pass, the doctor must achieve the lowest mark in the "competent" band (i.e. level 4).*

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**Where to find the evidence**

- ✓ COT
- ✓ MSF
- ✓ CBD
- ✓ Other (naturally occurring evidence)

**Sufficiency of evidence (over year)**

- Minimum 12 observed consultations
- Minimum 2 feedback reports
- Minimum 12 case discussions
### Data gathering and interpretation

This competency is about the gathering and use of data for clinical judgement, the choice of examination and investigations and their interpretation.

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<tr>
<td>Obtains information from the patient that is relevant to their problem.</td>
<td>Systematically gathers information, using questions appropriately targeted to the problem.</td>
<td>Proficiently identifies the nature and scope of enquiry needed to investigate the problem.</td>
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<tr>
<td>Employs examinations and investigations that are broadly in line with the patient's problem.</td>
<td>Makes appropriate use of existing information about the problem and the patient's context.</td>
<td>Uses an incremental approach, basing further enquires examinations and tests on what is already known and what is later discovered.</td>
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<td>Identifies abnormal findings and results.</td>
<td>Chooses examinations and targets investigations appropriately.</td>
<td>Identifies the implications of findings and results.</td>
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#### Where to find the evidence

- [✓] COT
- [✓] MSF
- [✓] CBD
- [✓] Other (naturally occurring evidence)

#### Sufficiency of evidence (over year)

- Minimum 12 observed consultations
- Minimum 2 feedback reports
- Minimum 12 case discussions

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## Making a diagnosis / making decisions

This competency is about a conscious, structured approach to decision-making.

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<tr>
<td>Taking relevant data into account, clarifies the problem and the nature of the decision required.</td>
<td>Addresses problems that present early and in an undifferentiated way by integrating information to aid pattern recognition.</td>
<td>Uses methods such as models and scripts to identify patterns quickly and reliably.</td>
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<td>Generates and tests an appropriate hypothesis.</td>
<td>Uses time as a diagnostic tool.</td>
<td>Uses an analytical approach to novel situations where probability cannot be readily applied.</td>
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<td>Makes decisions by applying rules or plans.</td>
<td>Uses an understanding of probability based on prevalence, incidence and natural history of illness to aid decision-making.</td>
<td>No longer relies on rules alone but is able to use and justify discretionary judgement in situations of uncertainty.</td>
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5 Clinical management

This competency is about the recognition and management of common medical conditions in primary care.

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<tr>
<td>Recognises the presentations of common physical, psychological and social problems.</td>
<td>Utilises the natural history of common problems in developing management plans.</td>
<td>Monitors the patient's progress to identify quickly unexpected deviations from the anticipated path.</td>
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<td>Uses appropriate but limited management options with little flexibility for the preferences of others.</td>
<td>Varies management options responsively according to the circumstances, priorities and preferences of those involved.</td>
<td>Generates and offers justifiable approaches where specific guidelines are not available.</td>
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<td>Makes appropriate prescribing decisions; routinely using important sources of information.</td>
<td>Routinely checks on drug interactions and side-effects and shows awareness of national and local prescribing guidance.</td>
<td>Prescribes cost-effectively but is able to justify transgressions of this principle.</td>
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<tr>
<td>Performs up to, but does not exceed the limits of his/her own competence.</td>
<td>Refers appropriately and co-ordinates care with other professionals in primary care and with other specialists</td>
<td>Identifies and encourages the development of new resources where these are needed.</td>
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<td>Ensures that continuity of care can be provided for the patient's problem e.g. through adequate record-keeping</td>
<td>Provides continuity of care for the patient rather than just the problem, reviewing care at suitable intervals.</td>
<td>Contributes to an organisational infrastructure and professional culture that allows continuity of care to be facilitated and valued.</td>
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<td>Responds rapidly and skilfully to emergencies.</td>
<td>Appropriate follows-up patients' family who have experienced a medical emergency</td>
<td>Ensures that emergency care is co-ordinated within the practice team and integrated with the emergency services.</td>
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Where to find the evidence
- COT
- MSF
- CBD
- Other (naturally occurring evidence)

Sufficiency of evidence (over year)
- Minimum 12 observed consultations
- Minimum 2 feedback reports
- Minimum 12 case discussions
## Managing medical complexity

This competency is about aspects of care beyond managing straightforward problems, including the management of co-morbidity, uncertainty and risk, and the approach to health rather than just illness.

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<th>Needs further development</th>
<th>Competent</th>
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<tr>
<td>Manages health problems separately, without necessarily considering the implications of co-morbidity</td>
<td>Simultaneously manages the patient’s health problems, both acute and chronic</td>
<td>Accepts responsibility for coordinating the management of the patient’s acute and chronic problems over time</td>
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<tr>
<td>Draws conclusions when it is appropriate to do so</td>
<td>Is able to tolerate uncertainty, including that experienced by the patient, where this is unavoidable.</td>
<td>Anticipates and uses strategies for managing uncertainty.</td>
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<tr>
<td>Appropriately prioritises management approaches, based on an assessment of patient risk</td>
<td>Communicates risk effectively to patients and involves them in its management to the appropriate degree.</td>
<td>Uses strategies such as monitoring, outcomes assessment and feedback to minimise the adverse effects of risk.</td>
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<tr>
<td>Maintains a positive attitude to the patient’s health</td>
<td>Consistently encourages improvement and rehabilitation, and where appropriate, recovery.</td>
<td>Coordinates a team based approach to health promotion, prevention, cure, care and palliation and rehabilitation</td>
</tr>
</tbody>
</table>

### Where to find the evidence
- MSF
- CBD
- Other (naturally occurring evidence)

### Sufficiency of evidence (over year)
- Minimum 2 feedback reports
- Minimum 12 case discussions
## Primary care administration and IMT

This competency is about the appropriate use of primary care administration systems, effective recordkeeping and information technology for the benefit of patient care.

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<tr>
<td>Demonstrates a rudimentary understanding of the organisation of primary care and the use of primary care computer systems</td>
<td>Uses the primary care organisational and IMT systems routinely and appropriately in patient care.</td>
<td>Uses and modifies organisational and IMT systems to facilitate:</td>
</tr>
<tr>
<td>Uses the computer record and online information during the consultation</td>
<td>Uses the computer during the consultation whilst maintaining rapport with the patient</td>
<td>- Clinical care to individuals and communities</td>
</tr>
<tr>
<td>Routinely records and codes each clinical contact in a timely manner and follows the record-keeping conventions of the practice.</td>
<td>Produces records that are coherent and comprehensible, appropriately and securely sharing these with others who have legitimate access to them.</td>
<td>- Clinical governance</td>
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<tr>
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<td>- Practice administration.</td>
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<tr>
<td></td>
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<td>Incorporates the computer record and online information in the consultation to improve communication with the patient</td>
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<td>Seeks to improve the quality and usefulness of the medical record e.g. through audit.</td>
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### Where to find the evidence
- MSF
- CBD
- Other (naturally occurring evidence)

### Sufficiency of evidence (per year)
- Minimum 2 feedback reports
- Minimum 12 case discussions
<table>
<thead>
<tr>
<th>Needs further development</th>
<th>Competent</th>
<th>Excellent</th>
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<tbody>
<tr>
<td>Meets contractual obligations to be available for patient care.</td>
<td>Provides appropriate availability to colleagues</td>
<td>Anticipates situations that might interfere with availability and ensures that patient care is not compromised.</td>
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<td>Appropriately utilises the roles and abilities of other team members.</td>
<td>Works co-operatively with the other members of the team, seeking their views, acknowledging their contribution and using their skills appropriately.</td>
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<tr>
<td>When requested to do so, appropriately provides information to others involved in the care of the patient.</td>
<td>Communicates proactively with team members so that patient care is not compromised. In relation to the circumstances, chooses an appropriate mode of communication to share information with colleagues and uses it effectively.</td>
<td>Encourages the contribution of colleagues and contributes to the development of the team.</td>
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</table>

Where to find the evidence
- [ ] MSF
- [ ] CBD
- [x] Other (naturally occurring evidence)

Sufficiency of evidence (over year)
- [ ] Minimum 2 feedback reports
- [ ] Minimum 12 case discussions
<table>
<thead>
<tr>
<th>9</th>
<th>Community orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>This competency is about the management of the health and social care of the practice population and local community.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Needs further development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies how the services of health care providers and self-help groups can be used appropriately by patient and doctor.</td>
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<tr>
<td>Identifies the socioeconomic, geographic and cultural features of the community that might affect health.</td>
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<tr>
<td>Identifies the features of the doctor’s personal circumstances and workload that might affect health care delivery.</td>
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<table>
<thead>
<tr>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconciles the health needs of individual patients and the health needs of the community in which they live in balance with available resources.</td>
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<tr>
<td>Applies an understanding of these features to improve the care of patients and the health of the community.</td>
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<table>
<thead>
<tr>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Excellent</th>
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</thead>
<tbody>
<tr>
<td>Contributes to the development and delivery of local policy related to health.</td>
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<tr>
<td>Applies an understanding of the resources and the financial and regulatory frameworks within which primary care operates, to improve community healthcare.</td>
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</table>

<table>
<thead>
<tr>
<th>Where to find the evidence</th>
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</thead>
<tbody>
<tr>
<td>✓ MSF</td>
<td>2 Minimum feedback reports</td>
</tr>
<tr>
<td>✓ CBD</td>
<td>12 Minimum case discussions</td>
</tr>
<tr>
<td>✓ Other (naturally occurring evidence)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Maintaining performance, learning and teaching</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Needs further development</strong></td>
<td><strong>Competent</strong></td>
</tr>
<tr>
<td>Accesses the available evidence, including the medical literature, clinical performance standards and guidelines for patient care.</td>
<td>Judges the weight of evidence, using critical appraisal skills and an understanding of basic statistical terms, to inform decision-making.</td>
</tr>
<tr>
<td>Routinely engages in study to keep abreast of evolving clinical practice and contemporary medical issues.</td>
<td>Shows a commitment to CPD through reflection on performance and the identification of and attention to learning needs. Investigates personal performance. Evaluates the process of learning so as to make future learning cycles more effective.</td>
</tr>
<tr>
<td>Recognises situations e.g. through risk assessment, where patient safety could be compromised.</td>
<td>Reports significant events appropriately and learns from them by communicating with those involved. Identifies learning objectives and uses teaching methods appropriate to these</td>
</tr>
<tr>
<td>Contributes to the education of students and colleagues.</td>
<td>Assists in making assessments of learners.</td>
</tr>
</tbody>
</table>

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**Where to find the evidence**
- ✓ MSF
- ✓ Other (naturally occurring evidence)

**Sufficiency of evidence (over year)**
- ☺ Minimum 2 feedback reports
## 11. Maintaining an ethical approach to practice

This competency is about practising ethically with integrity and a respect for diversity.

<table>
<thead>
<tr>
<th>Needs further development</th>
<th>Competent</th>
<th>Excellent</th>
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<tbody>
<tr>
<td>Observes the professional codes of practice, showing awareness of his/her own values, attitudes and ethics and how these might influence professional behaviour.</td>
<td>Identifies and discusses ethical conflicts in clinical practice.</td>
<td>Anticipates and avoids situations where personal and professional interests might be brought into conflict.</td>
</tr>
<tr>
<td>Treats patients, colleagues and others equitably and with respect for their beliefs, preferences, dignity and rights.</td>
<td>Recognises and takes action to address prejudice, oppression and unfair discrimination within the self, other individuals and within systems.</td>
<td>Actively promotes equality of opportunity for patients to access health care and for individuals to achieve their potential.</td>
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<tr>
<td>Recognises that people are different and does not discriminate against them because of those differences.</td>
<td></td>
<td>Values diversity by harnessing differences between people for the benefit of practice and patients alike</td>
</tr>
</tbody>
</table>

### Where to find the evidence
- ✓ MSF
- ✓ CBD
- ✓ Other (naturally occurring evidence)

### Sufficiency of evidence (over year)
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<thead>
<tr>
<th>12</th>
<th>Fitness to practise</th>
</tr>
</thead>
<tbody>
<tr>
<td>This competency is about the doctor's awareness of when his/her own performance, conduct or health, or that of others might put patients at risk and the action taken to protect patients.</td>
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<tr>
<td>Understands and maintains awareness of the GMC duties of a doctor.</td>
<td>Observes the accepted codes of practice in order to minimise the risk of disciplinary action or litigation.</td>
<td>Encourages scrutiny and justifies professional behaviour to colleagues.</td>
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<tr>
<td>Attends to professional demands whilst showing awareness of the importance of addressing personal needs.</td>
<td>Achieves a balance between professional and personal demands that protects professional obligations and preserves health.</td>
<td>Anticipates situations that might damage the work/life balance and seeks to minimise the adverse effects.</td>
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<tr>
<td>Attends to physical or mental illness or habit that might interfere seriously with the competent delivery of patient care.</td>
<td>Proactive in taking steps to maintain personal health.</td>
<td>Promotes an organisational culture in which the health of its members is valued and supported.</td>
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<tr>
<td>Notifies when his/her own or a colleague's performance, conduct or health might be putting patients at risk.</td>
<td>Promptly, discreetly and impartially ascertains the facts of the case, takes advice from colleagues and, if appropriate, engages in a referral procedure.</td>
<td>Provides positive support to colleagues who have made mistakes or whose performance gives cause for concern.</td>
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<tr>
<td>Responds to complaints appropriately</td>
<td>Where personal performance is an issue, seeks advice and engages in remedial action.</td>
<td>Uses mechanisms to learn from performance issues and to prevent them from occurring in the organisation.</td>
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Where to find the evidence
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- CBD
- Other (naturally occurring evidence)

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