

Medical Council of Malta

# Medical Council Malta Statutory Examination

Guidance document based on the competencies outlined by the Faculty of  
Medicine and Surgery, University of Malta

MMC/UoM

1/1/2015

## **Introduction**

The Health Care Professions Act 2003, Chap 464, Articles 11(1)(c) and 12(1)(c), stipulates that the Medical Council of Malta may require a Medical Professional whose primary degree is not from Malta or from an EU-Member State 'to sit for and pass a professional and linguistic proficiency test' (Medical Council Malta Statutory Examination) in order to be granted registration in Malta.

This document is aimed at prospective candidates sitting for the Malta Medical Council Statutory Exam (MMCSE) and explains the exam set up, as well as provides guidance on the required competencies expected of a medical professional seeking registration with the Medical Council of Malta.

The list of competencies outlined in Appendix A has been kindly provided by the *Faculty of Medicine and Surgery, University of Malta*.

## Medical Council Malta Statutory Examination

### 1. Purpose

- The purpose of the exam is to assess a candidate's knowledge and capacity to be registered in Malta as a medical practitioner. Candidates will be expected to demonstrate competence as doctors, following accepted evidence based methods, thus ensuring best practice and the highest level of patient safety.
- Prior to being accepted for sitting the MMCSE, the candidate must satisfy all the requirements set in the MMC regulations namely:
  1. proof of a medical degree
  2. Curriculum Vitae (CV)
  3. recent (within 3 months of applying) Certificate of Good Standing

### 2. Exam structure and methodology

The exam is an oral viva conducted in English. The viva will approximately last for a total of 80 min and is divided into 4 sections of 20 min each. Each 20 minute section will deal with 2 subject areas and will have an examiner in each subject. Each examiner will thus have approximately 10 min per viva and a total of 8 examiners will examine the candidate. The subject groupings are outlined below:-

- Medicine (Cardiovascular, Respiratory, Neurology, Nephrology, Rheumatology, Endocrinology, Gastroenterology) & Surgery (20 min)
- Family Medicine & Psychiatry (20 min)
- Pathology & Public Health (20 min)
- Obstetrics/Gynaecology & Paediatrics (20 min)
- *All subjects are failing* (a fail in any one topic is failing in all the MMCSE).
- Candidates are allowed to sit for the Medical Council Malta Statutory Examination (MCMSE) only *twice*.
- The passing mark for each subject is *50%*.

### 3. Competencies to be assessed

- *Appendix A* outlines the main subjects and required competencies.

### 4. Timing

- The exam will be held twice a year, in April and September, unless otherwise stated.

### 5. Publication of results

- The result of the exam will be published on the Malta Medical Council Notice Board and website. The results will also be communicated to the candidates within 2 weeks of the exam date by email.
- A breakdown of the result of all the topics will be forwarded to each candidate.

# Appendix A: Competencies

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This is a list of competencies outlining the knowledge and skills that would be expected of a candidate sitting for the MMSCE.

A candidate should have the capability to:-

## General Skills

1. Carry out a consultation with a patient: taking a history, carrying out a physical examination *while protecting the patient's dignity elicit the appropriate signs, interpret clinical findings* and assessing a patient's mental state.
2. Make evidence-based clinical judgements and decisions.
3. Communicate effectively with empathy, by providing explanation and advice, reassurance and support.
4. Assess clinical presentations, order and interpret investigations (haematological and biochemical investigations, arterial blood gasses, medical imaging, ECG etc) and make differential diagnoses.
5. Make and negotiate a management plan.
6. Prescribe drugs accurately while being cognizant of the benefits and risks.
7. Carry out basic practical procedures including administration of oxygen, intravenous therapy and blood transfusion.
8. Assess the psychological and social aspects of a patient's illness
9. Provide immediate care of medical emergencies, including First Aid and Resuscitation; showing knowledge of *Adult* and *Paediatric* Basic and Advanced life support protocols).
10. Explain the important aspects of breaking bad news.
11. Demonstrate how to obtain informed consent.
12. Communicate with colleagues in a medical context.

## MEDICINE

### Cardiovascular

1. Name the gross and microscopic features, detailed blood supply and innervation of the heart, its chambers, valves and great vessels and their clinical correlates
2. Outline the surface projections and methods of clinical examination of the heart, its valves and great vessels
3. Identify on radiographs and other imaging systems the features of the cardiovascular system

4. Outline the development of the cardiovascular system and how this relates to common developmental anomalies
5. Explain the anatomical basis for the localisation of pain arising from heart disease
6. Describe the conducting system of the heart and the reflex control of heart rate
7. Construct simple pressure-volume diagrams from the events during the cardiac cycle and annotate these graphs with valve openings and closures and correlate these with electrocardiographic events.
8. Construct an integrated picture of the various systems that control blood pressure and apply this to specific clinical examples involving blood loss or fluid overload
9. Explain the physiological changes that occur in the cardiovascular system in response to pregnancy
10. Outline the renin-angiotension system and its role in the aetiology of hypertension
11. Obtain an accurate measurement of systolic and diastolic blood pressures using a sphygmomanometer and stethoscope
12. Describe a systematic approach to ECG interpretation
13. Interpret simple clinical cases involving the cardiovascular system (including hypertension, angina, myocardial infarction, valve disease and thromboembolism) in terms of disordered anatomy and physiology and the basic investigations and drugs used to treat these conditions
14. Outline the genetic and lifestyle factors influencing and the public health implications of cardiovascular disease

## **Respiratory**

1. Name the gross and microscopic features, blood supply and innervation of the respiratory tract and their clinical correlates
2. Outline the surface projections and methods of clinical examination of the components of the respiratory system
3. Identify on radiographs and other imaging systems the bones, ligaments and muscles of the chest, the components of the lungs and their major relations
4. Outline the development of the respiratory tract and how this relates to common developmental anomalies
5. Outline the mechanics of the process of respiration, using anatomical and physiological principles of muscle action, flow, pressure etc.
6. Outline the important biochemical changes relating to blood gas solution, diffusion and interaction with the body's buffering system.
7. Outline the patterns of nervous and chemical control of the respiratory pathways and how these relate to common disorders of the respiratory system and the appropriate therapeutic agents.
8. Discuss the common pathologies of the respiratory tract in terms of disordered anatomy and physiology and the basic drugs used to treat these conditions.
9. Identify different chest sounds.

10. Indicate important anatomical sites and recognise physiological reasons for entry points in emergency puncture-treatments/investigations of the chest.
11. Interpret simple clinical cases involving the respiratory system (including tumours, serious infections, fractures, pneumothorax, pleural effusions, haemothorax and flail chest) in terms of disordered anatomy and physiology and the basic drugs used to treat these conditions

## **Neurology**

1. Communicate with a patient by taking a structured neurological history.
2. Carry out a comprehensive neurological examination.
3. Perform fundoscopy and interpret the findings in a clinical context.
4. Assess a patient's mental status.
5. Plan and interpret appropriate investigations.
6. Match appropriate drugs to a specific clinical context.
7. Assess psychological and social factors and the impact of illness.
8. Devise and discuss the rationale and practicalities of a basic management plan, including rehabilitation.
9. Discuss the theoretical aspects of diagnosis, possible complications and management options.
10. Show an understanding of the knowledge of the mode of action of drugs to specific clinical scenarios in the use of specific classes of drugs specifically; epilepsy, Parkinson's, multiple sclerosis, motor neurone disease, Alzheimer's and other movement disorders.
11. Show an understanding of the basic pharmacological principles in prescribing decisions for these classes of drugs
12. Predict inter-patient variability with respect to drug response in these classes of drugs
13. Explain the selection of differing drug therapies in these drug classes for the individual patient.
14. Interpret common symptoms and signs in terms of possible underlying pathology in infections and tumours of the central nervous system and eye infections
15. Correlate the use of simple diagnostic laboratory tests with clinical and morphological features of disease
16. Choose the appropriate laboratory tests to confirm diagnosis and interpret the result;
17. Choose the best antibiotic therapy for microbiological infections

## **Nephrology, Rheumatology, Endocrinology, Gastroenterology**

1. show an understanding of the knowledge of the mode of action of drugs to specific clinical scenarios in the use of specific classes of drugs specifically antimicrobial drugs and drugs used in nephrology, rheumatology, endocrinology and gastroenterology disorders.

2. show an understanding of the basic pharmacological principles in prescribing decisions for these classes of drugs in relation to nephrology, rheumatology, endocrinology and gastroenterology disorders
3. predict inter-patient variability with respect to drug response in these classes of drugs in relation to renal, rheumatological and haematological disorders nephrology, rheumatology, endocrinology and gastroenterology
4. Explain the selection of differing drug therapies in these drug classes for the individual patient in relation to nephrology, rheumatology, endocrinology and gastroenterology disorders.
5. Interpret common symptoms and signs in terms of possible underlying pathology in bone and renal diseases and in inflammatory and malignant diseases of the oesophagus, stomach and small and large bowel, viral hepatitis, pancreatic and biliary diseases, posterior pituitary disorders, diabetes mellitus and metabolic syndrome and to outline a differential diagnosis.
6. Choose the appropriate management for posterior pituitary disorders, diabetes mellitus and metabolic syndrome;
7. Correlate the use of simple diagnostic laboratory tests with clinical and morphological features of disease.
8. Choose the appropriate laboratory tests to confirm diagnosis and interpret the result.
9. Choose the best antibiotic therapy for microbiological infections.

## **SURGERY**

1. Describe the risks and benefits associated with regional versus general anaesthesia.
2. Analyze the risk factors that lead to increased peri-operative risk e.g Ischaemic heart disease, COAD, etc.
3. Identify various approaches to peri-operative pain management.
4. Demonstrate the ability to take a focused pre-operative history and physical examination.
5. Present the pre-operative assessment in a clear, concise and complete format.
6. Explain the current legal and ethical aspects of consent for surgery, anaesthesia and blood transfusion.
7. Make an early identification of deteriorating patients.
8. Demonstrate knowledge of surgical pathophysiology, clinical presentation, investigation and management of common surgical conditions such as endocrine disease including thyroid, parathyroid, adrenal and breast disease; gastrointestinal disease including upper and lower gastrointestinal tract, hepatobiliary and pancreatic disease as well as abdominal wall herniae.
9. Demonstrate knowledge of surgical pathophysiology, clinical presentation, investigation and management of common vascular as well as cardiothoracic disease including ischaemic heart disease, valvular heart disease and chest trauma; and

urological problems including urinary tract infection, kidney, ureter, bladder and prostate disease.

## **FAMILY MEDICINE**

1. Use and practice appropriate consultation skills for different clinical scenarios e.g. clinic, home, telephone.
2. Use sensitivity to gain insight to compliance.
3. Present verbal reports of clinical encounters to summarize the key findings in a succinct, well-organized manner that highlights the clinical reasoning process and provides a clear rationale for investigation and management.
4. Translate the patients' narrative and symptoms into a working diagnosis.
5. Ability to use different methods of gaining the patient's ideas, concerns and expectations (ICE).
6. Use the patient-centered clinical method with a particular focus on:
  - a. Undifferentiated symptoms such as abdominal pain, musculoskeletal pain, chest pain, dizziness, fatigue, fever, headache, cough / dyspnoea; and
  - b. Chronic disease management including Diabetes mellitus, Hypertension, Coronary artery disease, Mental health (e.g. anxiety, depression, addiction), and Lung disease (e.g. COPD, asthma)
7. Discuss the stress in a family dealing with a terminally ill member or significant health related events.
8. Evaluate the relationship between socioeconomic disadvantage and health status.
9. Knowledge of preventive medicine and identification of risk factors skills for motivational change.
10. Describe the legal and ethical requirements for obtaining informed consent and demonstrate skills in discussing consent with patients based on these requirements.
11. Demonstrate cultural competence when working with patients and families.
12. Negotiate the management plan.
13. Demonstrate an evidence based approach in psychosexual health issues at primary care level.
14. Demonstrate a respectful attitude towards other colleagues, teachers and members of an interprofessional team and work collaboratively for patient-centred care.
15. Demonstrate application of an ethical framework in the clinical decision-making process.
16. Explain that continuity of care and the importance of record keeping.
17. Discuss the current and past definitions of disability and work related impairment.
18. Describe the range of organizations in different communities that promote the well-being of patients (e.g., community agencies, self-help groups).

## **PSYCHIATRY**

1. Possess the necessary skills to recognise the presence of psychiatric morbidity and co-morbidity in their patients
2. Analyse the patient's problems and formulate with him or her plans for investigation and management in all disorders at the appropriate clinical level
3. Recognise the presence of disability and handicap and develop the skills to support and empower
4. Be non-judgemental in one's attitude, assessment and approach and be able to avoid the trap of dismissing patients or their problems on the basis of psychiatric, psychological and social factors
5. Respect patients and understand their feelings
6. Recognise the necessity of good doctor-patient relationships
7. Assess and manage the person who harms or is at risk of harming him or herself
8. Evaluate and manage the potentially aggressive patient
9. Assess and manage Acute Organic Brain syndrome
10. Assess and initially manage patients with alcohol related problems
11. Safely prescribe.

## **PATHOLOGY**

1. Describe the aetiology, pathogenesis and morphology (when clinically relevant) of haematological and organ system diseases
2. Discuss the relevance of risk factors for haematological and organ system diseases
3. Describe the clinical features of haematological diseases
4. Outline the clinical consequences of haematological and organ system diseases
5. Explain the development of complications of organ system diseases and haematological diseases
6. Describe the types of laboratory tests available for clinical diagnostic purposes and correlate their use with clinical and morphological features of disease.
7. Set out the underlying principles as to how such laboratory tests work
8. Explain why problems arise in the collection of specimen material for clinical diagnosis
9. State the problems encountered in laboratory processing that may affect test results.
10. Interpret common symptoms and signs in terms of possible underlying pathology in the haematopoietic system and in the organ systems studied and outline a differential diagnosis;
11. Identify pathological prognostic features in malignancy
12. Identify the appropriate methods of disease prevention
13. Choose the appropriate management for haematological diseases
14. Choose the best antibiotic therapy for microbiological infections

## **PUBLIC HEALTH**

1. Discuss how public health can utilise health information, social and behavioural interventions as well as health policy and law to improve the health of populations.
2. Describe the impact of the environment and communicable diseases on the health of populations.
3. Outline the burden of chronic diseases on morbidity and mortality and approaches to prevention, early detection and disease management.
4. Discuss the criteria for evaluating health systems including issues of access, quality and cost.
5. Identify the roles of public health in addressing the needs of vulnerable populations and health disparities.
6. Analyze the determinants of morbidity and mortality in a new situation.
7. Debate issues related to the health of the public and the control of major health problems.
8. Explain the organisation of public health care services and the contributions of health professionals.
9. Discuss issues, risks and strategies related to occupational health.
10. Explain the essentials for promoting health and understand behavioural change theory.
11. Describe the principle challenges and strategies in health economics

## **OBSTETRICS AND GYNAECOLOGY**

1. Discuss topics relating to the maternal and foetal systems in normal and abnormal pregnancies.
2. Outline the requirement related to antepartum care including its aims and method of implementation.
3. Describe the normal and abnormal intrapartum process.
4. Identify the problems of the postpartum period and puerperium and their management.
5. Explain the anatomical and physiological changes that occur during pregnancy, and the role these play in disease states.
6. Describe the clinical, biophysical and biochemical assessment for foetal wellbeing in relation to congenital abnormalities and placental insufficiency.
7. Demonstrate a practical knowledge of the reproductive hormonal function in the female detailing the abnormalities that can occur.
8. Outline the causes, investigations and management of infertility.
9. Discuss issues related to contraception. Demonstrate ability to explain to a patient in a professional and sensitive manner the correct use of the methods available for family control. Safely prescribe the oestrogen-progesterone combine contraceptive showing

- an understanding of the pharmacology, risks and benefits, and drug interactions of these medications.
10. Define the pathology and management of the various lesions affecting the lower and upper genital tract caused by infective organisms and neoplasia.
  11. Detail the conditions affecting the urinary system in relation to incontinence and trauma.
  12. Demonstrate knowledge of the different types of gynaecological tumours in relation to their epidemiology, aetiology, diagnosis and management.
  13. Diagnose and institute the antenatal care of the pregnant woman.
  14. Identify and be able to manage the specific problems and pathologies that occur in the 1st and 2nd trimesters of pregnancy - e.g. miscarriage; hyperemesis; molar pregnancy and choriocarcinoma; ectopic pregnancy
  15. Identify and be able to manage the specific problems and pathologies that occur in the 3rd trimester of pregnancy which may have consequences for the mother and/or fetus - e.g. Antepartum haemorrhage; hypertensive disorders; premature labour; multiple pregnancy; rhesus isoimmunization.
  16. Understand the monitoring the foetus during the antenatal period, labour and delivery.
  17. Monitor the foetus during labour and delivery including basic interpretation of cardiotocographs (CTGs), and identify the onset of foetal distress and hypoxia.
  18. Identify the onset of foetal distress and hypoxia.
  19. Safely prescribe hormonal treatment in the management of the gynaecological patient.
  20. Detail the basic principles related to gynaecological surgery including preoperative assessment and informed consent, postoperative care, possible associated surgical complications and their prevention.
  21. Diagnose pregnancy clinically and biochemically, and calculate gestational age.
  22. Explain to a patient the principles a lower segment Caesarean section operation.
  23. Identify postpartum and puerperal problems, and be familiar with their management.
  24. Assess for foetal wellbeing in relation to congenital abnormalities [particularly Down's syndrome, cystic fibrosis, neural tube defects and congenital cardiac defects] and placental insufficiency.
  25. Detail the basic principles related to gynaecological surgery including:
    - the concept of preoperative assessment and informed consent,
    - postoperative care, and
    - possible associated surgical complications and their prevention.
  26. Explain to a patient the basic principles of surgical procedures including:
    - uterine curettage and evacuation,
    - colposcopy, hysteroscopy and laparoscopy,
    - laparotomy and hysterectomy +/- salpingo-oophorectomy,
    - genital prolapse surgery including anterior & posterior repair and vaginal hysterectomy, and
    - colposuspension and urethral buttressing for stress incontinence.

## **PAEDIATRIC**

1. Understand normal growth and development of infants, children and adolescents.
2. Describe common Paediatric clinical problems and their management.
3. Discuss the diverse characteristics and needs of different cultural groups and specific populations, e.g., immigrants, socially deprived, ethnic minorities, etc.
4. Explain the principles of law as they apply to the practice of Paediatrics.
5. Describe the major ethical dilemmas in the care of infants, children and adolescents, and an approach to resolving these.
6. Show an understanding of basic principles involved in clinical pharmacology and therapeutics specific classes of drugs specifically antimicrobial drugs and drugs used in relation to Paediatrics.
7. Describe the various scientific principles underlying the actions and uses of these specific classes of drugs in the clinical setting in relation to Paediatrics.
8. Recognise the importance of understanding the mode of action and clinical use of these classes of drugs in relation to Paediatrics.
9. List the clinical principles involved in the selection of these classes of drugs to the individual patient in relation to Paediatrics.
10. Predict the effects of these classes of drugs in specific patients in relation to Paediatrics.
11. Outline the concept of individualised drug therapy in use of these classes of drugs in relation to Paediatrics.
12. Describe the aetiology, risk factors and pathogenesis of paediatric infection and common genetically inherited diseases.
13. Outline the clinical consequences and complications of paediatric infections.
14. Describe the types of laboratory tests available for clinical diagnosis of paediatric infections;
15. Describe the vaccines available for use in children.
16. Obtain a comprehensive and focused medical and psychosocial history from a caregiver and/or a child or adolescent.
17. Perform comprehensive and focused physical and developmental examinations of infants, children and adolescents.
18. Select and interpret commonly-employed investigations in infants, children and adolescents.
19. Demonstrate the ability to formulate a problem-oriented approach to the infant's, child's or adolescent's health problems.
20. Organize these investigations appropriately and judiciously.
21. Communicate with children in a professional way while at the same time making them comfortable.
22. Assess psychological and social aspects of a child's illness.
23. Counsel parents on the diagnosis and management of their child's illness.
24. Advise parents regarding issues of preventive healthcare.

25. Interpret common symptoms and signs in terms of possible underlying pathology in paediatric infections and common genetically inherited diseases
26. Correlate the use of simple diagnostic laboratory tests with clinical and morphological features of disease
27. Choose the appropriate laboratory tests to confirm diagnosis and interpret the result
28. Distinguish alterations in chromosome structure in relation to specific syndromes
29. Explain how karyotype analysis is performed.
30. Choose the best antibiotic therapy for microbiological infections
31. Negotiate a comprehensive management plan including treatment, follow up and after care that may include attention to feeding, parenting and social issues.

# Appendix B: Main Texts

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## Main texts

1. Clinical Medicine. Parveen Kumar P & Michael Clark. Saunders. 8th Edition, 2012.
2. Macleod's Clinical Examination. Graham Douglas, Fiona Nicol, Colin Robertson. Churchill Livingstone. 12th Edition, 2009.
3. Oxford Handbook of Clinical Medicine. Murray Longmore, Ian Wilkinson, Edward Davidson, Alexander Foulkes, Oxford University Press. 8th Edition, 2010.
4. 250 Short Cases in Clinical Medicine. Ragavendra Baliga. Saunders. 4th Edition, 2012
5. Oxford Handbook of Family Medicine  
Bob Mash, Dave Whittaker, Khaya Mfenyana (Author), Marietjie de Villiers.  
August 1, 2011
6. Textbook of Family Medicine  
Ian R McWhinney, Thomas Freeman. April 8, 2009
7. Respiratory Physiology: The Essentials West  
Lippincott, Williams and Wilkins 1994  
ISBN 0-683-0-8937-4
8. Llewellyn-Jones Fundamentals of Obstetrics and Gynaecology (Paperback) by Jeremy N. Oats (Author), Suzanne Abraham (Author). Elsevier Health Sciences (United Kingdom), 2004, ISBN 9780723433293
9. ABC of Mental Health BMJ, 2nd Edition, 2009, Ed Teifion Davies , Tom Craig, BMJ Books, ISBN: 978-0-7279-1639-6