D-GAM®, Human Anti-D Immunoglobulin now has three separate Summary of Product Characteristics – one for each dose strength.

Summary of Product Characteristics for 250 iu dose is presented on pages 2 – 5
Summary of Product Characteristics for 500 iu dose is presented on pages 6 – 9
Summary of Product Characteristics for 1,500 and 2,500 iu doses is presented on pages 10 – 13
SUMMARY OF PRODUCT CHARACTERISTICS

D-GAM®, Human Anti-D Immunoglobulin

Human Anti-D Immunoglobulin Ph.Eur.*
Each vial contains: 5 - 50 mg/L protein (250 and 500 iu vials) or 20 - 180 mg/L protein (1,500 and 2,500 iu vials) of which at least 95% is gammaglobulin (IgG). The product contains less than 0.02% w/w of IgA. For excipients see 6.1. The product is prepared from plasma from RhD-negative screened donors who have been immunised against RhD antigen and contains specific antibodies against erythrocyte RhD antigen. Donors are selected from the USA.

*The product is presented in three different concentrations but the highest concentration is filled in different volumes to achieve two dose presentations. The product is therefore available in four nominal doses, namely 250 iu per vial, 500 iu per vial, 1,500 iu per vial and 2,500 iu per vial.

4. Clinical Particulars:

4.1 Therapeutic indications
Prevention of RhD immunisation in RhD negative women:
i. Pregnancy/delivery of a RhD positive baby.
ii. Abortion/threatened abortion, ectopic pregnancy or hydatidiform mole.
iii. After ante-partum haemorrhage (APH), amniocentesis, chorionic biopsy or obstetric manipulative procedure e.g. external version, or abdominal trauma, which may cause transplacental haemorrhage (TPH).

Treatment of RhD negative patients after incompatible transfusions of RhD positive blood or other products containing red blood cells (e.g. platelets).

4.2 Posology and method of administration

Posology
a) Post-Natal Dosage
   The recommended dose is 500 iu.
   For postnatal use, the product should be administered as soon as possible within 72 hours of delivery.
   If a large fetomaternal haemorrhage is suspected, its extent should be determined by a suitable method and additional doses of anti-D should be administered as indicated.

b) Ante-Natal Prophylaxis
   500 iu given at both 28 and 34 weeks of gestation.

c) Following a Potentially Sensitising Event During Pregnancy
   D-GAM® should be administered as soon as possible and no later than 72 hours after the event.
   Up to 20 weeks gestation: recommended dose is 250 iu per incident.
   After 20 weeks gestation: recommended dose is 500 iu per incident. A test for the size of the FMH should be performed when anti-D is given after 20 weeks and additional doses of anti-D should be administered as indicated.

d) Prevention of Immunisation in RhD Negative Patients Given Blood Components Containing RhD Positive Cells
   Recommended doses: 125 iu per ml of transfused RhD positive red cells; 250 iu per three adult doses of platelets.
Method of administration
For intramuscular use (preferably into the deltoid muscle).
D-GAM® is for single injection only.
In the case of haemorrhagic disorders, where intramuscular injections are
contra-indicated, Anti-D immunoglobulin may be administered
subcutaneously. Careful manual pressure with a compress should be applied
to the site after injection.
If large total doses (>5 ml) are required, it is advisable to administer them in
divided doses at different sites.

4.3 Contraindications
Hypersensitivity to any of the components.

4.4 Special warnings and special precautions for use
Do not administer this product intravenously (risk of shock).
In the case of post-partum use, the product is intended for maternal
administration. It should not be given to the newborn infant.
The product is not intended for use in RhD positive individuals.
Patients should be observed for at least 20 minutes after administration.
If symptoms of allergic or anaphylactic type reactions occur, immediate
discontinuation of the administration is required.
True hypersensitivity reactions are rare but allergic type responses to Anti-D
immunoglobulin may occur. Patients should be informed of the early signs of
hypersensitivity reactions including hives, generalised urticaria, tightness of
the chest, wheezing, hypotension and anaphylaxis. The treatment required
depends on the nature and severity of the side effect. In case of shock, the
current medical standards for shock treatment should be observed.
D-GAM® contains a small quantity of IgA. Although anti-D immunoglobulin has
been used successfully to treat selected IgA deficient individuals, the
attending physician must weigh the benefit against the potential risks of
hypersensitivity reactions. Individuals deficient in IgA have a potential for
development of IgA antibodies and anaphylactic reactions after
administration of blood components containing IgA.
When medicinal products prepared from human blood or plasma are
administered, infectious diseases due to transmission of infective agents
cannot be totally excluded. This also applies to pathogens of hitherto
unknown nature. The risk of transmission of infective agents is however
reduced by:
(i) Selection of donors by a medical interview and screening of individual
donations and plasma pools for HBsAg and antibodies to HIV and HCV.
(ii) Testing of plasma pools for HCV genomic material.
(iii) Inactivation/removal procedures included in the production process that
have been validated using model viruses. These procedures are
considered effective for HIV, HCV and HBV. The specific virus inactivation
process used is solvent/detergent treatment.
The viral removal/inactivation procedures may be of limited value against non-
enveloped viruses such as hepatitis A virus or parvovirus B19.
In the interest of patients, it is recommended that, whenever possible, every
time that D-GAM® is administered to them, the name and batch number of the
product is registered.

4.5 Interactions with other medicaments and other forms of interactions
Active immunisation with live virus vaccines (e.g. measles, mumps or rubella)
should be postponed until 3 months after the administration of Anti-D
immunoglobulin, as the efficacy of the live virus vaccine may be impaired. If
Anti-D immunoglobulin needs to be administered within 2-4 weeks of a live
virus vaccination, then the efficacy of such a vaccination may be impaired.
After injection of immunoglobulin, the transitory rise of the various passively
transferred antibodies in the patient's blood may result in misleading positive
results in serological testing.
The results of blood typing and antibody testing, including the Coombs' or
antiglobulin test, are significantly affected by the administration of anti-D
immunoglobulin.
4.6 Pregnancy and lactation
This medicinal product is used in pregnancy.

4.7 Effects on ability to drive and use machines
No effects on ability to drive and use machines have been observed.

4.8 Undesirable effects
Local pain and tenderness can be observed at the injection site; this can be prevented by dividing larger doses over several injection sites. Occasionally fever, malaise, headache, cutaneous reactions and chills occur. In rare cases: nausea, vomiting, hypotension, tachycardia and allergic or anaphylactic type reactions, including dyspnoea and shock, are reported, even when the patient has shown no hypersensitivity to previous administration.
For information on viral safety see 4.4.

4.9 Overdose
No data are available on overdosage. Patients with incompatible transfusion who receive a large dose of anti-D immunoglobulin should be monitored clinically and by biological parameters, because of the risk of haemolytic reaction.
In other RhD negative individuals, overdosage should not lead to more frequent or more severe undesirable effects than the normal dose.

5. Pharmacological Properties:

5.1 Pharmacodynamic properties
Pharmacotherapeutic group: immune sera and immunoglobulins: Anti-D (Rh) immunoglobulin. ATC code: J06BB01.
Anti-D immunoglobulin contains specific antibodies (IgG) against the RhD antigen of human erythrocytes.

5.2 Pharmacokinetic properties
Measurable levels of antibodies are obtained approximately 8 hours after intramuscular injection. Peak serum levels are usually achieved 2 to 3 days later.
The half-life in the circulation of individuals with normal IgG levels is 3 to 4 weeks.
IgG and IgG-complexes are broken down in cells of the reticuloendothelial system.

5.3 Preclinical safety data
D-GAM® is a preparation of human plasma proteins, so safety testing in animals is not particularly relevant to the safety of use in man. Acute toxicity studies in rat and mouse showed species specific reactions, which bear no relevance to administration in humans.
Repeated dose safety testing is impracticable due to the induction of and interference with antibodies to human protein. Clinical experience provides no sign of tumourigenic and mutagenic effects.

6. Pharmaceutical Particulars:

6.1 List of excipients
Sodium chloride
Glycine
Sodium acetate trihydrate
Sodium hydroxide

6.2 Incompatibilities
This medicinal product must not be mixed with other medicinal products.

6.3 Shelf-life
Stored at 2° - 8°C: 2 years.
Stored at 25°C: 1 week.
6.4 **Special precautions for storage**
D-GAM® should be stored in the original container at 2°C to 8°C. Storage for up to one week at ambient temperatures (25°C) in the original container is not detrimental. DO NOT FREEZE. The condition of date-expired, or incorrectly stored product cannot be guaranteed. Such product may be unsafe, and should not be used.

6.5 **Nature and contents of container**
Neutral borosilicate glass vial (Type I Ph.Eur.) with overseal consisting of a halobutyl rubber wad (Type I Ph.Eur.), clear lacquered aluminium skirt and flip-off polypropylene cap.

6.6 **Instruction for use and handling and disposal**
The product should be brought to room or body temperature before use. The solution should be clear or slightly opalescent. Do not use solutions which are cloudy or have deposits. Any unused product or waste material should be disposed of in accordance with local requirements.

7. **Holder of Marketing Authorisation:**
Bio Products Laboratory
Dagger Lane
Elstree
Hertfordshire
WD6 3BX
United Kingdom.

8. **Marketing Authorisation Number:**
PL 08801/0047 - 250 iu dose size.

9. **Date of First Authorisation/Renewal of Authorisation:**
31 July 2000

10. **Date of (Partial) Revision of the Text:**
November 2004

Version code: SDS3A
1. Name of Product:
D-GAM®, Human Anti-D Immunoglobulin

2. Qualitative and Quantitative Composition:
Human Anti-D Immunoglobulin Ph.Eur.*
Each vial contains: 5 - 50 mg/L protein (250 and 500 iu vials) or 20 - 180 mg/L protein (1,500 and 2,500 iu vials) of which at least 95% is gammaglobulin (IgG). The product contains less than 0.02% w/w of IgA. For excipients see 6.1.
The product is prepared from plasma from RhD-negative screened donors who have been immunised against RhD antigen and contains specific antibodies against erythrocyte RhD antigen. Donors are selected from the USA.
*The product is presented in three different concentrations but the highest concentration is filled in different volumes to achieve two dose presentations. The product is therefore available in four nominal doses, namely 250 iu per vial, 500 iu per vial, 1,500 iu per vial and 2,500 iu per vial.

3. Pharmaceutical Form:
A solution for injection.

4. Clinical Particulars:
4.1 Therapeutic indications
Prevention of RhD immunisation in RhD negative women:
i. Pregnancy/delivery of a RhD positive baby.
ii. Abortion/threatened abortion, ectopic pregnancy or hydatidiform mole.
iii. After ante-partum haemorrhage (APH), amniocentesis, chorionic biopsy or obstetric manipulative procedure e.g. external version, or abdominal trauma, which may cause transplacental haemorrhage (TPH).
Treatment of RhD negative patients after incompatible transfusions of RhD positive blood or other products containing red blood cells (e.g. platelets).

4.2 Posology and method of administration
Posology
a) Post-Natal Dosage
   The recommended dose is 500 iu.
   For postnatal use, the product should be administered as soon as possible within 72 hours of delivery.
   If a large fetomaternal haemorrhage is suspected, its extent should be determined by a suitable method and additional doses of anti-D should be administered as indicated.
b) Ante-Natal Prophylaxis
   500 iu given at both 28 and 34 weeks of gestation.
c) Following a Potentially Sensitising Event During Pregnancy
   D-GAM® should be administered as soon as possible and no later than 72 hours after the event.
   Up to 20 weeks gestation: recommended dose is 250 iu per incident.
   After 20 weeks gestation: recommended dose is 500 iu per incident. A test for the size of the FMH should be performed when anti-D is given after 20 weeks and additional doses of anti-D should be administered as indicated.
d) Prevention of Immunisation in RhD Negative Patients Given Blood Components Containing RhD Positive Cells
   Recommended doses: 125 iu per ml of transfused RhD positive red cells; 250 iu per three adult doses of platelets.
Method of administration
For intramuscular use (preferably into the deltoid muscle).
D-GAM® is for single injection only.
In the case of haemorrhagic disorders, where intramuscular injections are contra-indicated, Anti-D immunoglobulin may be administered subcutaneously. Careful manual pressure with a compress should be applied to the site after injection.
If large total doses (>5 ml) are required, it is advisable to administer them in divided doses at different sites.

4.3 Contraindications
Hypersensitivity to any of the components.

4.4 Special warnings and special precautions for use
Do not administer this product intravenously (risk of shock).
In the case of post-partum use, the product is intended for maternal administration. It should not be given to the newborn infant.
The product is not intended for use in RhD positive individuals.
Patients should be observed for at least 20 minutes after administration.
If symptoms of allergic or anaphylactic type reactions occur, immediate discontinuation of the administration is required.
True hypersensitivity reactions are rare but allergic type responses to Anti-D immunoglobulin may occur. Patients should be informed of the early signs of hypersensitivity reactions including hives, generalised urticaria, tightness of the chest, wheezing, hypotension and anaphylaxis. The treatment required depends on the nature and severity of the side effect. In case of shock, the current medical standards for shock treatment should be observed.
D-GAM® contains a small quantity of IgA. Although anti-D immunoglobulin has been used successfully to treat selected IgA deficient individuals, the attending physician must weigh the benefit against the potential risks of hypersensitivity reactions. Individuals deficient in IgA have a potential for development of IgA antibodies and anaphylactic reactions after administration of blood components containing IgA.
When medicinal products prepared from human blood or plasma are administered, infectious diseases due to transmission of infective agents cannot be totally excluded. This also applies to pathogens of hitherto unknown nature. The risk of transmission of infective agents is however reduced by:
(i) Selection of donors by a medical interview and screening of individual donations and plasma pools for HBsAg and antibodies to HIV and HCV.
(ii) Testing of plasma pools for HCV genomic material.
(iii) Inactivation/removal procedures included in the production process that have been validated using model viruses. These procedures are considered effective for HIV, HCV and HBV. The specific virus inactivation process used is solvent/detergent treatment.
The viral removal/inactivation procedures may be of limited value against non-enveloped viruses such as hepatitis A virus or parvovirus B19.
In the interest of patients, it is recommended that, whenever possible, every time that D-GAM® is administered to them, the name and batch number of the product is registered.

4.5 Interactions with other medicaments and other forms of interactions
Active immunisation with live virus vaccines (e.g. measles, mumps or rubella) should be postponed until 3 months after the administration of Anti-D immunoglobulin, as the efficacy of the live virus vaccine may be impaired. If Anti-D immunoglobulin needs to be administered within 2-4 weeks of a live virus vaccination, then the efficacy of such a vaccination may be impaired.
After injection of immunoglobulin, the transitory rise of the various passively transferred antibodies in the patient's blood may result in misleading positive results in serological testing.
The results of blood typing and antibody testing, including the Coombs' or antiglobulin test, are significantly affected by the administration of anti-D immunoglobulin.
4.6 Pregnancy and lactation
This medicinal product is used in pregnancy.

4.7 Effects on ability to drive and use machines
No effects on ability to drive and use machines have been observed.

4.8 Undesirable effects
Local pain and tenderness can be observed at the injection site; this can be prevented by dividing larger doses over several injection sites.
Occasionally fever, malaise, headache, cutaneous reactions and chills occur.
In rare cases: nausea, vomiting, hypotension, tachycardia and allergic or anaphylactic type reactions, including dyspnoea and shock, are reported, even when the patient has shown no hypersensitivity to previous administration.
For information on viral safety see 4.4.

4.9 Overdose
No data are available on overdosage. Patients with incompatible transfusion who receive a large dose of anti-D immunoglobulin should be monitored clinically and by biological parameters, because of the risk of haemolytic reaction.
In other RhD negative individuals, overdosage should not lead to more frequent or more severe undesirable effects than the normal dose.

5. Pharmacological Properties:
5.1 Pharmacodynamic properties
Pharmacotherapeutic group: immune sera and immunoglobulins: Anti-D (Rh) immunoglobulin. ATC code: J06BB01.
Anti-D immunoglobulin contains specific antibodies (IgG) against the RhD antigen of human erythrocytes.

5.2 Pharmacokinetic properties
Measurable levels of antibodies are obtained approximately 8 hours after intramuscular injection. Peak serum levels are usually achieved 2 to 3 days later.
The half-life in the circulation of individuals with normal IgG levels is 3 to 4 weeks.
IgG and IgG-complexes are broken down in cells of the reticuloendothelial system.

5.3 Preclinical safety data
D-GAM® is a preparation of human plasma proteins, so safety testing in animals is not particularly relevant to the safety of use in man. Acute toxicity studies in rat and mouse showed species specific reactions, which bear no relevance to administration in humans.
Repeated dose safety testing is impracticable due to the induction of and interference with antibodies to human protein. Clinical experience provides no sign of tumourigenic and mutagenic effects.

6. Pharmaceutical Particulars:
6.1 List of excipients
Sodium chloride
Glycine
Sodium acetate trihydrate
Sodium hydroxide

6.2 Incompatibilities
This medicinal product must not be mixed with other medicinal products.

6.3 Shelf-life
Stored at 2° - 8°C: 2 years.
Stored at 25°C: 1 week.
6.4 Special precautions for storage
D-GAM® should be stored in the original container at 2°C to 8°C. Storage for up to one week at ambient temperatures (25°C) in the original container is not detrimental. DO NOT FREEZE.
The condition of date-expired, or incorrectly stored product cannot be guaranteed. Such product may be unsafe, and should not be used.

6.5 Nature and contents of container
Neutral borosilicate glass vial (Type I Ph.Eur.) with overseal consisting of a halobutyl rubber wad (Type I Ph.Eur.), clear lacquered aluminium skirt and flip-off polypropylene cap.

6.6 Instruction for use and handling and disposal
The product should be brought to room or body temperature before use.
The solution should be clear or slightly opalescent. Do not use solutions which are cloudy or have deposits.
Any unused product or waste material should be disposed of in accordance with local requirements.

7. Holder of Marketing Authorisation:
Bio Products Laboratory
Dagger Lane
Elstree
Hertfordshire
WD6 3BX
United Kingdom.

8. Marketing Authorisation Number:
PL 08801/0048 - 500 iu dose size. POM

9. Date of First Authorisation/Renewal of Authorisation:
31 July 2000

10. Date of (Partial) Revision of the Text:
November 2004

Version code: SDS3B
1. Name of Product:

D-GAM®, Human Anti-D Immunoglobulin

2. Qualitative and Quantitative Composition:

Human Anti-D Immunoglobulin Ph.Eur.*

Each vial contains: 5 - 50 mg/L protein (250 and 500 iu vials) or 20 – 180 mg/L protein (1,500 and 2,500 iu vials) of which at least 95% is gammaglobulin (IgG). The product contains less than 0.02% w/w of IgA. For excipients see 6.1. The product is prepared from plasma from RhD-negative screened donors who have been immunised against RhD antigen and contains specific antibodies against erythrocyte RhD antigen. Donors are selected from the USA.

*The product is presented in three different concentrations but the highest concentration is filled in different volumes to achieve two dose presentations. The product is therefore available in four nominal doses, namely 250 iu per vial, 500 iu per vial, 1,500 iu per vial and 2,500 iu per vial.

3. Pharmaceutical Form:

A solution for injection.

4. Clinical Particulars:

4.1 Therapeutic indications

Prevention of RhD immunisation in RhD negative women:

i. Pregnancy/delivery of a RhD positive baby.

ii. Abortion/threatened abortion, ectopic pregnancy or hydatidiform mole.

iii. After ante-partum haemorrhage (APH), amniocentesis, chorionic biopsy or obstetric manipulative procedure e.g. external version, or abdominal trauma, which may cause transplacental haemorrhage (TPH).

Treatment of RhD negative patients after incompatible transfusions of RhD positive blood or other products containing red blood cells (e.g. platelets).

4.2 Posology and method of administration

Posology

a) Post-Natal Dosage

The recommended dose is 500 iu.

For postnatal use, the product should be administered as soon as possible within 72 hours of delivery.

If a large fetomaternal haemorrhage is suspected, its extent should be determined by a suitable method and additional doses of anti-D should be administered as indicated.

b) Ante-Natal Prophylaxis

500 iu given at both 28 and 34 weeks of gestation.

c) Following a Potentially Sensitising Event During Pregnancy

D-GAM® should be administered as soon as possible and no later than 72 hours after the event.

Up to 20 weeks gestation: recommended dose is 250 iu per incident.

After 20 weeks gestation: recommended dose is 500 iu per incident. A test for the size of the FMH should be performed when anti-D is given after 20 weeks and additional doses of anti-D should be administered as indicated.

d) Prevention of Immunisation in RhD Negative Patients Given Blood Components Containing RhD Positive Cells

Recommended doses: 125 iu per ml of transfused RhD positive red cells; 250 iu per three adult doses of platelets.
Method of administration
For intramuscular use (preferably into the deltoid muscle).
D-GAM® is for single injection only.
In the case of haemorrhagic disorders, where intramuscular injections are
contra-indicated, Anti-D immunoglobulin may be administered
subcutaneously. Careful manual pressure with a compress should be
applied to the site after injection.
If large total doses (>5 ml) are required, it is advisable to administer them
in divided doses at different sites.

4.3 Contraindications
Hypersensitivity to any of the components.

4.4 Special warnings and special precautions for use
Do not administer this product intravenously (risk of shock).
In the case of post-partum use, the product is intended for maternal
administration. It should not be given to the newborn infant.
The product is not intended for use in RhD positive individuals.
Patients should be observed for at least 20 minutes after administration.
If symptoms of allergic or anaphylactic type reactions occur, immediate
discontinuation of the administration is required.
True hypersensitivity reactions are rare but allergic type responses to Anti-D
immunoglobulin may occur. Patients should be informed of the early signs of
hypersensitivity reactions including hives, generalised urticaria, tightness of
the chest, wheezing, hypotension and anaphylaxis. The treatment required
depends on the nature and severity of the side effect. In case of shock, the
current medical standards for shock treatment should be observed.
D-GAM® contains a small quantity of IgA. Although anti-D immunoglobulin has
been used successfully to treat selected IgA deficient individuals, the
attending physician must weigh the benefit against the potential risks of
hypersensitivity reactions. Individuals deficient in IgA have a potential for
development of IgA antibodies and anaphylactic reactions after
administration of blood components containing IgA.
When medicinal products prepared from human blood or plasma are
administered, infectious diseases due to transmission of infective agents
cannot be totally excluded. This also applies to pathogens of hitherto
unknown nature. The risk of transmission of infective agents is however
reduced by:
(i) Selection of donors by a medical interview and screening of individual
donations and plasma pools for HBsAg and antibodies to HIV and HCV.
(ii) Testing of plasma pools for HCV genomic material.
(iii) Inactivation/removal procedures included in the production process that
have been validated using model viruses. These procedures are
considered effective for HIV, HCV and HBV. The specific virus inactivation
process used is solvent/detergent treatment.
The viral removal/inactivation procedures may be of limited value against non-
enveloped viruses such as hepatitis A virus or parvovirus B19.
In the interest of patients, it is recommended that, whenever possible, every
time that D-GAM® is administered to them, the name and batch number of the
product is registered.

4.5 Interactions with other medicaments and other forms of interactions
Active immunisation with live virus vaccines (e.g. measles, mumps or rubella)
should be postponed until 3 months after the administration of Anti-D
immunoglobulin, as the efficacy of the live virus vaccine may be impaired. If
Anti-D immunoglobulin needs to be administered within 2-4 weeks of a live
virus vaccination, then the efficacy of such a vaccination may be impaired.
After injection of immunoglobulin, the transitory rise of the various passively
transferred antibodies in the patient's blood may result in misleading positive
results in serological testing.
The results of blood typing and antibody testing, including the Coombs' or
antiglobulin test, are significantly affected by the administration of anti-D
immunoglobulin.
4.6 Pregnancy and lactation
This medicinal product is used in pregnancy.

4.7 Effects on ability to drive and use machines
No effects on ability to drive and use machines have been observed.

4.8 Undesirable effects
Local pain and tenderness can be observed at the injection site; this can be prevented by dividing larger doses over several injection sites. Occasionally fever, malaise, headache, cutaneous reactions and chills occur. In rare cases: nausea, vomiting, hypotension, tachycardia and allergic or anaphylactic type reactions, including dyspnoea and shock, are reported, even when the patient has shown no hypersensitivity to previous administration.
For information on viral safety see 4.4.

4.9 Overdose
No data are available on overdosage. Patients with incompatible transfusion who receive a large dose of anti-D immunoglobulin should be monitored clinically and by biological parameters, because of the risk of haemolytic reaction.
In other RhD negative individuals, overdosage should not lead to more frequent or more severe undesirable effects than the normal dose.

5. Pharmacological Properties:

5.1 Pharmacodynamic properties
Pharmacotherapeutic group: immune sera and immunoglobulins: Anti-D (Rh) immunoglobulin. ATC code: J06BB01.
Anti-D immunoglobulin contains specific antibodies (IgG) against the RhD antigen of human erythrocytes.

5.2 Pharmacokinetic properties
Measurable levels of antibodies are obtained approximately 8 hours after intramuscular injection. Peak serum levels are usually achieved 2 to 3 days later.
The half-life in the circulation of individuals with normal IgG levels is 3 to 4 weeks.
IgG and IgG-complexes are broken down in cells of the reticuloendothelial system.

5.3 Preclinical safety data
D-GAM® is a preparation of human plasma proteins, so safety testing in animals is not particularly relevant to the safety of use in man. Acute toxicity studies in rat and mouse showed species specific reactions, which bear no relevance to administration in humans.
Repeated dose safety testing is impracticable due to the induction of and interference with antibodies to human protein. Clinical experience provides no sign of tumourigenic and mutagenic effects.

6. Pharmaceutical Particulars:

6.1 List of excipients
Sodium chloride
Glycine
Sodium acetate trihydrate
Sodium hydroxide

6.2 Incompatibilities
This medicinal product must not be mixed with other medicinal products.

6.3 Shelf-life
Stored at 2° - 8°C: 2 years.
Stored at 25°C: 1 week.
6.4 **Special precautions for storage**

D-GAM® should be stored in the original container at 2°C to 8°C. Storage for up to one week at ambient temperatures (25°C) in the original container is not detrimental. **DO NOT FREEZE.**

The condition of date-expired, or incorrectly stored product cannot be guaranteed. Such product may be unsafe, and should not be used.

6.5 **Nature and contents of container**

Neutral borosilicate glass vial (Type I Ph.Eur.) with overseal consisting of a halobutyl rubber wad (Type I Ph.Eur.), clear lacquered aluminium skirt and flip-off polypropylene cap.

6.6 **Instruction for use and handling and disposal**

The product should be brought to room or body temperature before use.

The solution should be clear or slightly opalescent. Do not use solutions which are cloudy or have deposits.

Any unused product or waste material should be disposed of in accordance with local requirements.

7. **Holder of Marketing Authorisation:**

Bio Products Laboratory
Dagger Lane
Elstree
Hertfordshire
WD6 3BX
United Kingdom.

8. **Marketing Authorisation Number:**

PL 08801/0049 - 1,500 iu and 2,500 iu dose sizes. **POM**

9. **Date of First Authorisation/Renewal of Authorisation:**

31 July 2000

10. **Date of (Partial) Revision of the Text:**

November 2004

**Version code: SDS3C**