ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

ImmunoGam 312 IU/ml solution for injection.

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains 312 IU Human hepatitis B immunoglobulin, corresponding to a protein content of 30-70 mg/ml of which 96% is Immunoglobulin G (IgG).

One vial contains 312 IU of anti-HBs in 1 ml
One vial contains 1560 IU of anti-HBs in 5 ml

The immunoglobulin IgG subclasses are:

IgG1:	64-67%
IgG2:	25-27%
IgG3:	7-9%
IgG4:	0.1-0.3%

IgA content is less than 40 micrograms/ml.

For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection.
ImmunoGam is a clear to slightly opalescent and colourless or pale yellow liquid.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Immunoprophylaxis of Hepatitis B

- In case of accidental exposure in non-immunised subjects (including persons whose vaccination is incomplete or status unknown).
- In haemodialysed patients, until vaccination has become effective.
- In the newborn of a hepatitis B virus carrier-mother.
- In subjects who did not show an immune response (no measurable hepatitis B antibodies) after vaccination and for whom a continuous prevention is necessary due to the continuous risk of being infected with hepatitis B.

Consideration should also be given to other official guidance on the appropriate use of human hepatitis B immunoglobulin for imtramuscular use.

4.2 Posology and method of administration

Posology

- Prevention of hepatitis B in case of accidental exposure in non-immunised subjects:
  At least 500 IU, depending on the intensity of exposure, as soon as possible after exposure, and preferably within 24 - 72 hours.

- Immunoprophylaxis of hepatitis B in haemodialysed patients:
  8-12 IU/kg with a maximum of 500 IU, every 2 months until seroconversion following vaccination.

- Prevention of hepatitis B in the newborn, of a hepatitis B virus carrier-mother, at birth or as soon as possible after birth:
  30-100 IU/kg. The hepatitis B immunoglobulin administration may need to be repeated until seroconversion following vaccination.

In all these situations, vaccination against hepatitis B virus is highly recommended. The first vaccine dose can be injected the same day as human hepatitis B immunoglobulin, however in different sites.

In subjects who did not show an immune response (no measurable hepatitis B antibodies) after vaccination, and for whom continuous prevention is necessary, administration of 500 IU to adults and 8 IU/kg to children every 2 months can be considered; a minimum protective antibody titre is considered to be 10 mIU/ml.

Consideration should also be given to dose and dose schedules for human hepatitis B immunoglobulin for intramuscular use recommended in other official guidance.

Method of administration

ImmunoGam should be administered via the intramuscular route.

If a large volume (>2 ml for children or >5 ml for adults) is required, it is recommended to administer this in divided doses at different sites.

When simultaneous vaccination is necessary, the immunoglobulin and the vaccine should be administered at two different sites.

If intramuscular administration is contraindicated (bleeding disorders), the injection can be administered subcutaneously if no intravenous medicinal product is available. However, it should be noted that there are no clinical efficacy data to support administration by the subcutaneous route.

4.3 Contraindications

Hypersensitivity to any of the components.

Hypersensitivity to human immunoglobulins, especially in very rare cases of IgA deficiency when the patient has antibodies against IgA.

4.4 Special warnings and precautions for use

Ensure that ImmunoGam is not administered into a blood vessel, because of the risk of shock.

If the recipient is a carrier of HBsAg, there is no benefit in administering this medicinal product.

True hypersensitivity reactions are rare.

ImmunoGam contains a small quantity of IgA (less than 40 micrograms/ml). Individuals who are deficient in IgA have the potential for developing IgA antibodies and may have anaphylactic reactions after administration of blood components containing IgA. The physician must therefore weigh the benefit of treatment with ImmunoGam against potential risk of hypersensitivity reactions.

Rarely, human hepatitis B immunoglobulin can induce a fall in blood pressure with anaphylactic reaction, even in patients who have tolerated previous treatment with immunoglobulin.

Suspicion of allergic or anaphylactic type reactions requires immediate discontinuation of the injection. In case of shock, standard medical treatments for shock should be implemented.

Standard measures to prevent infections resulting from the use of medicinal products prepared from human blood or plasma include selection of donors, screening of individual donations, and plasma pools for specific markers of infection and the inclusion of effective manufacturing steps for the inactivation/removal of viruses. Despite this, when medicinal products prepared from human blood or plasma are administered, the possibility of transmitting infective agents cannot be totally excluded. This also applies to unknown or emerging viruses and other pathogens.

The measures taken are considered effective for enveloped viruses such as HIV, HBV, and HCV.

The measures taken may be of limited value against non-enveloped viruses such as HAV and parvovirus B19.

There is reassuring clinical experience regarding the lack of hepatitis A or parvovirus B19 transmission with immunoglobulins and it is also assumed that the antibody content makes an important contribution to the viral safety.

It is strongly recommended that every time ImmunoGam is administered to a patient, the name and batch number of the medicinal product are recorded in order to maintain a link between the patient and the batch of medicinal product.

ImmunoGam contains 0.16 g of maltose in a 500 IU dose. This should be taken into account in patients with diabetes mellitus.

4.5 Interaction with other medicinal products and other forms of interaction

Live attenuated virus vaccines
Immunoglobulin administration may interfere with the development of an immune response to live attenuated virus vaccines such as rubella, mumps, measles and varicella for a period of 3 months.

After administration of this medicinal product, an interval of at least 3 months should elapse before vaccination with live attenuated virus vaccines.

Human hepatitis B immunoglobulin should be administrated three to four weeks after vaccination with such a live attenuated vaccine; in case administration of human hepatitis B immunoglobulin is essential within three to four weeks after vaccination, then revaccination should be performed three months after the administration of human hepatitis B immunoglobulin.

Interference with testing
Serological testing
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.

Passive transmission of antibodies to erythrocyte antigens, e.g. A, B, D may interfere with some serological tests for red cell allo-antibodies (e.g.Coombs' test).

Blood glucose testing
Some types of blood glucose testing systems (for example, those based on the glucose dehydrogenase pyrroloquinolinequinone (GDH-PQQ) or glucose-dye-oxidoreductase methods) falsely interpret the maltose contained in ImmunoGam as glucose. This may result in falsely elevated glucose readings and consequently in the inappropriate administration of insulin, resulting in life-threatening hypoglycemia. Also, cases of true hypoglycemia may go untreated if the hypoglycemic state is masked by falsely elevated glucose readings. Accordingly, when administering ImmunoGam or other parenteral maltose-containing products, the measurement of blood glucose must be done with a glucose-specific method. The product information of the blood glucose testing systems, including that of the test strips, should be carefully reviewed to determine if the system is appropriate for use with maltose-containing parenteral products. If any uncertainty exists, the manufacturer of the testing system should be contacted to determine if the system is appropriate for use with maltose-containing parenteral products.

4.6 Pregnancy and lactation

Pregnancy
The safety of this medicinal product for use in human pregnancy has not been established in controlled clinical trials. Clinical experience with immunoglobulins suggests that no harmful effects on the course of pregnancy, or on the fetus and the neonate are to be expected.

Lactation
Immunoglobulins are excreted into milk but no harmful effects on the neonate are to be expected.

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

In general for immunoglobulin products, adverse reactions such as chills, headache, fever, vomiting, allergic reactions, nausea, arthralgia, low blood pressure and moderate low back pain may occur occasionally.

Related undesirable effects within 7 days of ImmunoGam administration, from clinical trials conducted using the intramuscular route of administration is tabulated below:

MedDRA system organ class	Undesirable effects	ADR frequency category*
Nervous system disorders	Headache	Uncommon (≥1/1,000 to <1/100)
Vascular disorders	Dizziness	Uncommon (≥1/1,000 to <1/100)
Gastrointestinal disorders	Nausea	Uncommon (≥1/1,000 to <1/100)
Musculoskeletal and connective tissue disorders	Arthralgia, back pain, myalgia	Uncommon (≥1/1,000 to <1/100)
General disorders and administration site conditions	Fatigue, induration, malaise, pain, pyrexia	Uncommon (≥1/1,000 to <1/100)

* Frequency has been evaluated using the following criteria: very common (≥1/10), common (≥1/100 to <1/10), uncommon (≥1/1,000 to <1/100).

Post-marketing experience:
No adverse events were reported in the post marketing use of ImmunoGam for Immunoprophylaxis of Hepatitis B indication.

For safety with respect to transmissible agents, see section 4.4

4.9 Overdose

No case of overdose has been reported.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Hepatitis B immunoglobulin, ATC code: J06BB04

Human hepatitis B immunoglobulin contains mainly immunoglobulin G (IgG) with a specifically high content of antibodies against hepatitis B virus surface antigen (HBsAg).

5.2 Pharmacokinetic properties

Human hepatitis B immunoglobulin for intramuscular use is bioavailable in the recipient's circulation after a delay of 2 – 3 days.

ImmunoGam has an elimination half-life of 3 – 4 weeks. This half-life may vary from patient to patient. IgG and IgG-complexes are broken down in the reticuloendothelial system.

5.3 Preclinical safety data

Immunoglobulins are normal constituents of the human body. In animals, acute toxicity testing is of no relevance as higher doses result in overloading. Repeated-dose toxicity testing and embryo-fetal toxicity studies are impractical due to induction of, and interference with antibodies. Effects of the medicinal product on the immune system of the newborn have not been studied.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Maltose
Polysorbate 80

6.2 Incompatibilities

This medicinal product must not be mixed with other medicinal products except those mentioned in section 6.6.

6.3 Shelf life

3 years.

6.4 Special precautions for storage

Store in a refrigerator (2 ºC to 8ºC). Do not freeze.

Keep the vial in the outer carton in order to protect from light.

6.5 Nature and contents of container

ImmunoGam is supplied in a Type 1 glass vial with a siliconized bromobutyl rubber stopper, aluminum seal and plastic flip-off cap.
1 vial per pack.

6.6 Special precautions for disposal and other handling

ImmunoGam should be brought to room temperature (approximately 20 ºC to 25ºC) before use.

The solution should be clear to slightly opalescent and colourless or pale yellow. Solutions that are cloudy or have deposits should not be used.

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

7. MARKETING AUTHORISATION HOLDER

Cangene Europe Limited
Parkshot House
5 Kew Road
Richmond, Surrey TW9 2PR
United Kingdom

8. MARKETING AUTHORISATION NUMBER(S)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

10. DATE OF REVISION OF THE TEXT

Detailed information on this medicinal product is available on the website of the European Medicines Agency http://www.ema.europa.eu

ANNEX II

A. MANUFACTURER OF THE BIOLOGICAL ACTIVE SUBSTANCE ANDMANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE

B. CONDITIONS OF THE MARKETING AUTHORISATION

A. MANUFACTURER OF THE BIOLOGICAL ACTIVE SUBSTANCE AND MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer of the biological active substance

Cangene Corporation
155 Innovation Drive
Winnipeg, Manitoba R3T 5Y3
Canada

Name and address of the manufacturers responsible for batch release

Baxter S.A.
Boulevard René Branquart, 80
B-7860 Lessines
Belgium

B. CONDITIONS OF THE MARKETING AUTHORISATION

- **CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE IMPOSED ON THE MARKETING AUTHORISATION HOLDER**

Medicinal product subject to medical prescription.

- **CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT**

Not applicable

- **OTHER CONDITIONS**

Pharmacovigilance system
The MAH must ensure that the system of pharmacovigilance, as described in version 2.0 presented in Module 1.8.1. of the Marketing Authorisation Application, is in place and functioning before and whilst the product is on the market.

The MAH commits to performing the studies and additional pharmacovigilance activities detailed in the Pharmacovigilance Plan, as agreed in version 1.3 of the Risk Management Plan (RMP) presented in Module 1.8.2. of the Marketing Authorisation Application and any subsequent updates of the RMP agreed by the CHMP.

As per the CHMP Guideline on Risk Management Systems for medicinal products for human use, the updated RMP should be submitted at the same time as the next Periodic Safety Update Report (PSUR).

In addition, an updated RMP should be submitted
- When new information is received that may impact on the current Safety Specification, Pharmacovigilance Plan or risk minimisation activities
- Within 60 days of an important (pharmacovigilance or risk minimisation) milestone being reached
- At the request of the EMEA

Official batch release: in accordance with Article 114 Directive 2001/83/EC as amended, the official batch release will be undertaken by a state laboratory or a laboratory designated for that purpose.

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGING
OUTER CARTON

1. NAME OF THE MEDICINAL PRODUCT

ImmunoGam 312 IU/ml solution for injection
Human Hepatitis B Immunoglobulin

2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each ml contains 312 IU Human Hepatitis B Immunoglobulin corresponding to a protein content of 30-70 mg/ml with at least 96% Immunoglobulin G (IgG).
One vial of 1 ml contains 312 IU of anti-HBs.
One vial of 5 ml contains 1560 IU of anti-HBs.

3. LIST OF EXCIPIENTS

Excipients: Maltose (see package leaflet for further information) and polysorbate 80

4. PHARMACEUTICAL FORM AND CONTENTS

Solution for Injection
1 vial (312 IU/1ml)
1 vial (1560 IU/5ml)

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Read the package leaflet before use.
Intramuscular use

6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE REACH AND SIGHT OF CHILDREN

Keep out of the reach and sight of children.

7. OTHER SPECIAL WARNING(S), IF NECESSARY

8. EXPIRY DATE

Exp:

9. SPECIAL STORAGE CONDITIONS

Store in a refrigerator (2 to 8^{o}C). Do not freeze.

10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Cangene Europe Limited
Parkshot House
5 Kew Road
Richmond, Surrey TW9 2PR
United Kingdom

12. MARKETING AUTHORISATION NUMBER(S)

13. BATCH NUMBER

Lot:

14. GENERAL CLASSIFICATION FOR SUPPLY

Medicinal product subject to medical prescription

15. INSTRUCTIONS ON USE

16. INFORMATION IN BRAILLE

[Justification for not including Braille accepted]

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS
VIAL LABEL

1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

ImmunoGam 312 IU/ml solution for injection
Human Hepatitis B Immunoglobulin
IM

2. METHOD OF ADMINISTRATION

Read the package leaflet before use

3. EXPIRY DATE

Exp:

4. BATCH NUMBER

Lot:

5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

312 IU/1 ml
1560 IU/5 ml

6. OTHER

Cangene Logo to be inserted

B. PACKAGE LEAFLET

PACKAGE LEAFLET: INFORMATION FOR THE USER

ImmunoGam 312 IU/ml solution for injection
Human Hepatitis B Immunoglobulin

Read all of this leaflet carefully before you start using this medicine.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor.
- If any of the side effects gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor.

In this leaflet:

1. WHAT IMMUNOGAM IS AND WHAT IT IS USED FOR

What ImmunoGam is
ImmunoGam belongs to a group of medicines containing immunoglobulins (antibodies which can protect against certain infections), which are present in your blood. ImmunoGam contains increased levels of human hepatitis B immunoglobulins mainly immunoglobulin G (IgG) and is obtained from blood plasma of screened donors from the USA.

What ImmunoGam is used for
ImmunoGam provides protection against hepatitis B virus for a short period of time and it is used to treat the following:
- Accidental exposure in non-immunised subjects (including persons whose vaccination is incomplete or status unknown).
- Haemodialysed patients, until vaccination has become effective.
- Newborn of a hepatitis B virus carrier-mother.
- Subjects who did not show an immune response (no measurable hepatitis B antibodies) after vaccination and for whom a continuous prevention is necessary due to the continuous risk of being infected with hepatitis B.

2. BEFORE YOU RECEIVE IMMUNOGAM

You should NOT be given ImmunoGam
- if you have previously developed an allergic reaction to human immunoglobulins, to other blood products or to any of the other ingredients of ImmunoGam.
- if you have an IgA deficiency such that you have developed an allergic reaction to IgA containing products

Take special care with ImmunoGam

General warnings related to ImmunoGam:

- Immunoglobulins in general may cause adverse reactions such as chills, headache, fever, vomiting, allergic reactions, nausea, arthralgia (joint pain), low blood pressure and moderate low back pain.
- Patients should be monitored for antibodies against human hepatitis B immunoglobulin regularly.
- Human hepatitis B immunoglobulin injections can induce a drop in blood pressure with an allergic reaction, even in patients who have tolerated previous treatments with immunoglobulin. Suspicion of allergic or anaphylactic type reactions requires immediate discontinuation of the injection. In case of shock, standard medical treatments for shock should be administered.
- Immunoglobulin A: Please tell your doctor if your blood does not have immunoglobulin A (IgA). ImmunoGam contains small amounts of IgA. Patients who have an IgA deficiency may develop an allergic reaction to this medicine.
- ImmunoGam contains maltose (10%w/w).

Serological Testing

ImmunoGam may cause a rise of various transferred antibodies which may result in misleading positive results of certain blood serum tests. Also transmission of antibodies to blood group antigens may interfere with some blood tests for red cell allo-antibodies (e.g. Coombs' test).

Blood Glucose Testing

Blood glucose testing: when administering ImmunoGam, the measurement of blood glucose must be done with a glucose-specific method. This is because Some types of blood glucose testing systems falsely interpret the maltose contained in ImmunoGam as glucose. This may result in falsely elevated glucose readings and consequently in the inappropriate administration of insulin which may result in hypoglycemia. Also cases of true hypoglycemia may go untreated if the hypoglycemic state is masked by falsely elevated glucose readings."

Viral Safety

When medicines are made from human blood or plasma, certain measures are put in place to prevent infections being passed from blood donors on to patients. These include careful selection of blood and plasma donors to make sure those at risk of carrying infections are excluded, and the testing of each donation and pools of plasma for signs of virus/infections. Manufacturers of these products also include steps in the processing of the blood or plasma that can inactivate or remove viruses. Despite these measures, when medicines prepared from human blood or plasma are administered the possibility of passing on infection cannot be totally excluded. This also applies to any unknown or emerging viruses or other types of infections.

The measures taken are considered effective for enveloped viruses such as human immunodeficiency virus (HIV), hepatitis B virus and hepatitis C virus.

The measures taken may be of limited value against non-enveloped viruses such as hepatitis A virus and parvovirus B19.

Immunoglobulins have not been associated with hepatitis A or parvovirus B19 infections possibly because the antibodies against these infections, which are contained in the product, are protective.

It is strongly recommended that every time you receive a dose of ImmunoGam, the name and batch number of the product are recorded in your physician's notes in order to maintain a record of the batches used.

Using other medicines

- Please tell your doctor or nurse, if you are taking or have recently taken any other medicines, including medicines obtained without a prescription e.g. herbal medicines.
- Please inform your doctor if you are planning to receive a vaccine or have been recently vaccinated in the last three months. This is because ImmunoGam may interfere with the response to some attenuated vaccines, such as measles, rubella, mumps, and chicken pox.
- There are no available data on drug interactions of ImmunoGam with other medications.

Pregnancy and breastfeeding

Ask your doctor for advice before using this medicine.
Your doctor will decide if ImmunoGam can be used during pregnancy and breastfeeding.

Driving and using machines

ImmunoGam does not effect your ability to drive or use machines.

Important information about some of the ingredients of ImmunoGam

ImmunoGam contains 0.16 g of maltose in a 500 IU dose. This should be taken into account in patients with diabetes mellitus.

3. HOW IMMUNOGAM IS ADMINISTERED

The quantity of ImmunoGam you will need will be determined by your doctor or nurse. The table below provides a recommended dose. Vaccination against hepatitis B virus is highly recommended. The first vaccine dose can be injected on the same day as human hepatitis B immunoglobulin, however in different sites.

Indication	Dose	Frequency of Administration
Prevention of hepatitis B in case of accidental exposure in non-immunised subjects	At least 500 IU	depending on the intensity of exposure, as soon as possible after exposure, and preferably within 24 - 72 hours
Immunoprophylaxis of hepatitis B in haemodialysed patients	8-12 IU/kg with a maximum of 500 IU	every 2 months until seroconversion following vaccination.
Prevention of hepatitis B in the newborn, of a hepatitis B virus carrier-mother, at birth or as soon as possible after birth	30-100 IU/kg	The hepatitis B immunoglobulin administration may need to be repeated until seroconversion following vaccination

Instructions for Use

ImmunoGam should be brought to room temperature (approximately 20°C to 25°C) before use. The solution should be clear to slightly opalescent and colourless or pale yellow essentially free of foreign particles. Do not use solutions that are cloudy or have deposits.

For intramuscular administration, ImmunoGam should be injected into the upper part of the shoulder (deltoid muscle), or into the right part of the thigh in the front (anteriolateral thigh) in newborn children.

If a large volume (greater than 2 ml for children or greater than 5 ml for adults) is required, it is recommended that the administration of ImmunoGam be divided doses at different sites.

When simultaneous vaccination is necessary, the immunoglobulin and the vaccine should be administered at two different sites.

If more ImmunoGam is used than recommended
No data is available in the event of an overdose. For intramuscular administration of ImmunoGam, the only manifestations of overdose would be pain and tenderness at the injection site.

4. POSSIBLE SIDE EFFECTS

Like all medicines, ImmunoGam can cause side effects, although not everybody gets them.

The frequency of possible side effects listed below is defined using the following convension:
- very common (affects more than 1 user in 10)
- common (affects 1 to 10 users in 100)
- uncommon (affects 1 to 10 users in 1,000)
- rare (affects 1 to 10 users in 10,000)
- very rare (affects less than 1 user in 10,000)
- not known (frequency cannot be estimated from the available data)

Undesirable effects reported during clinical trials with ImmunoGam, that was administered intramuscularly (injected into a muscle), were uncommon (affects 1 to 10 users in 1,000). These undesirable effects were reported within the first 7 days after receiving ImmunoGam: nausea, fatigue, induration (swelling and firmness) at the injection site, feeling unwell, pain, fever, joint pain, back pain, muscle pain, headache and dizziness.

The following side effect can be **serious** and has been observed occasionally.
- **Allergic reaction:** There is a chance that you may experience an allergic reaction after administration of this medicine. Please tell your doctor immediately if you experience any of the following symptoms after receiving ImmunoGam:
  - hives, flushed skin or rash, swelling of a specific area such as the injection site or face
  - chest tightness, shortness of breath, wheezing
  - rapid increase in heart beat, sudden drop in blood pressure and/or shock

  These symptoms may be early signs of an allergic reaction. Depending on the nature and severity of the allergic reaction, your doctor may give you an additional treatment or your doctor may decide to stop the injection immediately.

In case of intramuscular administration, some discomfort may occur occasionally at the site of injection such as local pain or tenderness. In patients who have severe thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injections, ImmunoGam should be given only if the expected benefits outweigh the potential risks.

If any of the side effects mentioned in this leaflet gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor, nurse or pharmacist.

5. HOW TO STORE IMMUNOGAM

- Keep out of the reach and sight of children.
- Do not use ImmunoGam after the expiry date which is stated on the label and carton. The expiry date refers to the last day of that month.
- Store in a refrigerator (2 to 8°C).
- Do not freeze.
- Keep the vial in the outer carton in order to protect from light.
- Do not use ImmunoGam if the solution appears cloudy or has deposits. Medicines should not be disposed via wastewater or household waste. Any unused product should be disposed of in accordance with local requirements. These measures will help to protect the environment.

6. FURTHER INFORMATION

What ImmunoGam contains

- The active substance is Human hepatitis B immunoglobulin. ImmunoGam comes in a 1 ml or 5 ml vial containing 30-70 mg/ml of human plasma protein of which 96% (312 IU/ml) is Immunoglobulin G (IgG).

- The other ingredients are maltose and polysorbate 80.

What ImmunoGam looks like and contents of the pack

ImmunoGam is presented as a solution for injection in a glass vial. It is clear to slightly opalescent and colourless or pale yellow liquid.
Pack size of 1 vial.

Marketing Authorisation Holder and Manufacturer

Marketing Authorisation Holder
Cangene Europe Limited
Parkshot House
5 Kew Road
Richmond, Surrey TW9 2PR
United Kingdom
Telephone: +44 (0) 208 334 8527
Telefax: +44 (0) 208 334 8557

Manufacturer
Cangene Corporation
155 Innovation Drive
Winnipeg, MA
R3T 5Y3
Canada

This leaflet was last approved in

Detailed information on this medicine is available on the European Medicines Agency web site:
http://www.ema.europa.eu

The following information is intended for medical or healthcare professionals only:

Posology

- Prevention of hepatitis B in case of accidental exposure in non-immunised subjects:
  At least 500 IU, depending on the intensity of exposure, as soon as possible after exposure, and preferably within 24 - 72 hours.
- Immunoprophylaxis of hepatitis B in haemodialysed patients:
  8-12 IU/kg with a maximum of 500 IU, every 2 months until seroconversion following vaccination.
- Prevention of hepatitis B in the newborn, of a hepatitis B virus carrier-mother, at birth or as soon as possible after birth:
  30-100 IU/kg. The hepatitis B immunoglobulin administration may need to be repeated until seroconversion following vaccination.

In all these situations, vaccination against hepatitis B virus is highly recommended. The first vaccine dose can be injected the same day as human hepatitis B immunoglobulin, however in different sites.

In subjects who did not show an immune response (no measurable hepatitis B antibodies) after vaccination, and for whom continuous prevention is necessary, administration of 500 IU to adults and 8 IU/kg to children every 2 months can be considered; a minimum protective antibody titre is considered to be 10 mIU/ml.

Consideration should also be given to dose and dose schedules for human hepatitis B immunoglobulin for intramuscular use recommended in other official guidance.

Method of Administration

ImmunoGam should be administered via the intramuscular route.
If a large volume (>2 ml for children or >5 ml for adults) is required, it is recommended to administer this in divided doses at different sites.

When simultaneous vaccination is necessary, the immunoglobulin and the vaccine should be administered at two different sites.

Instruction for Use and Handling and Disposal

ImmunoGam should be brought to room temperature (approximately 20°C to 25°C) before use

The solution should be clear to slightly opalescent and colourless or pale yellow. Do not use solutions that are cloudy or have deposits. Any unused product or waste material should be disposed of in accordance with local requirements.