

## PACKAGE LEAFLET: INFORMATION FOR THE USER

### **Gamunex® 10%** **100 mg/ml solution for infusion** **Human normal immunoglobulin (IVIg)**

**Read all of this leaflet carefully before you start using this medicine because it contains important information for you.**

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- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.

If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet.

#### **What is in this leaflet:**

1. What *Gamunex® 10%* is and what it is used for
2. What you need to know before you use *Gamunex® 10%*
3. How to use *Gamunex® 10%*
4. Possible side effects
5. How to store *Gamunex® 10%*
6. Contents of the pack and other information

#### **1. What *Gamunex® 10%* is and what it is used for**

##### **What *Gamunex® 10%* is**

This medicine is an unmodified human immunoglobulin G (IgG) with a broad spectrum of antibodies to various infectious agents.

##### **What *Gamunex® 10%* is used for**

Treatment of adults, children and adolescents (0-18 years) who do not have sufficient antibodies (replacement therapy) such as:

- Patients with primary immunodeficiency syndromes (PID) (inborn lack of antibodies)
- Hypogammaglobulinaemia (a condition implying low immunoglobulin levels in your blood) and recurrent bacterial infections in patients with chronic lymphocytic leukaemia (cancer of the blood where too many white blood cells are produced), in whom prophylactic antibiotics have failed.
- Hypogammaglobulinaemia and recurrent bacterial infections in myeloma (tumour composed of cells derived from the bone marrow) patients who failed to respond to pneumococcal immunisation.
- Hypogammaglobulinaemia in patients after stem cell transplantation (allogenic haematopoietic stem cell transplantation, HSCT), when you are given stem cells from another person.
- Congenital AIDS with recurrent bacterial infections.

Treatment of adults, children and adolescents (0-18 years) with certain autoimmune disorders (immunomodulation). There are four groups:

- Primary immune thrombocytopenia (ITP), a condition where the number of platelets in the blood stream is greatly reduced. Platelets form an important part of the clotting process and a reduction in their numbers may cause unwanted bleeding and bruising. The product is also used in patients at high risk of bleeding or prior to surgery to correct the platelet count.
- Guillain-Barré syndrome, where the immune system damages the nerves and hinders them from working properly.
- Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)
- Kawasaki disease (in this case in conjunction with acetylsalicylic acid therapy), an illness in children where the blood vessels (arteries) in the body become enlarged.

## 2. What you need to know before you use *Gamunex*<sup>®</sup> 10%

### Do not use *Gamunex*<sup>®</sup> 10%

- If you are allergic to human immunoglobulin,
- If you are allergic to any of the other ingredients of this medicine (listed in section 6).
- If you do not have enough immunoglobulins of the type IgA in your blood or have developed antibodies to IgA
- If your only immunoglobulin deficiency is a IgA deficiency

### Warnings and precautions

Certain side effects may be related to the rate of infusion. The recommended infusion rate (see “3. How to use *Gamunex*<sup>®</sup> 10%”) should therefore be followed.

Certain side effects may occur more frequently:

- with a high infusion rate,
- in patients with a complete lack of gammaglobulins or low gammaglobulin levels (agammaglobulinaemia or hypogammaglobulinaemia) with or without IgA deficiency,
- in patients who are receiving human normal immunoglobulin for the first time or, in rare cases, when the immunoglobulin product is switched or after a prolonged interval without treatment.

Potential complications can often be avoided by ensuring:

- that you are not hypersensitive to human immunoglobulin by having *Gamunex*<sup>®</sup> 10% initially infused slowly (0.1 ml/kg/hr).
- that you are carefully monitored for any symptoms throughout the infusion period. In particular, if you are receiving human immunoglobulin for the first time, if you have been switched from a different immunoglobulin or if you have not received treatment for some time, you should be monitored for possible side effects during the first infusion and for one hour afterwards.

If side effects occur, the infusion rate should be reduced or the infusion should be suspended until the symptoms have disappeared. If the symptoms persist even after suspending the infusion, suitable treatment should be commenced. In the event of a shock reaction (anaphylactic shock with a severe fall in blood pressure), treatment with the product should be stopped immediately and the current standard medical treatment for shock should be implemented. Cases of kidney function disorders and acute kidney failure have been reported in connection with administration of intravenous immunoglobulins. You are particularly at risk if you have certain risk factors such as pre-existing impairment of kidney function (renal insufficiency), diabetes (diabetes mellitus) or a reduced blood volume (hypovolaemia). Other circumstances considered to be risk factors are if you are overweight or are being treated simultaneously with medicines that have harmful effects on the kidneys and/or if you are over the age of 65. The following precautions should be taken by you in any case:

- Please, drink enough to ensure adequate fluid intake prior to commencement of therapy,
- Your doctor should control your urine output and measure kidney function,
- Please, do not use simultaneously certain medicines that increase urine output (loop diuretics).

If a kidney function disorder occurs, your doctor will consider discontinuing the immunoglobulin treatment. While the reports of kidney function disorders and acute kidney failure have been associated with use of many of the licensed immunoglobulin products, products containing cane sugar (sucrose) as a stabiliser accounted for a disproportionate share of the total number. If you are at increased risk in respect of the above-mentioned factors, you should receive an immunoglobulin product that is free of cane sugar. *Gamunex*<sup>®</sup> 10% contains no cane sugar. Furthermore, the infusion rate in your case should be as low as possible and the immunoglobulin product should be used at the lowest feasible concentration.

It is commonly reported that immunoglobulins increase the risk of destruction of red blood cells (haemolysis) in both adults and children. If you were administered high doses of IVIg either on one day or over several days and are blood type A, B or AB and/or have an underlying inflammatory condition you may be at increased risk for red blood cell destruction (haemolysis).

In post-marketing reports it is observed that IVIg high-dose indications in children, particularly Kawasaki disease, are associated with an increased reporting rate of haemolytic reactions compared to other IVIg indications in children.

You should seek medical attention should you develop pallor (turn pale), lethargy (feeling weak), dark urine, shortness of breath or palpitations (fast heart rate).

Isolated cases of haemolysis-related kidney dysfunction/kidney failure with fatal outcome have occurred.

This medicinal product is essentially 'sodium free'.

When medicines are made from human blood or plasma, certain measures are put in place to prevent infections being passed on to patients. These include:

- careful selection of blood and plasma donors to make sure those at risk of carrying infections are excluded
- the testing of each donation and pools of plasma starting materials for signs of virus/infections
- the inclusion of 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/or 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 this medicine the name and batch number of the product are recorded in order to maintain a record of the batches used.

### **Other medicines and *Gamunex*<sup>®</sup> 10%**

Please tell your doctor or pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

Effects on vaccines: *Gamunex* 10% may reduce the effectiveness of certain type of vaccines (live attenuated virus vaccines) such as measles, rubella, mumps and varicella.

***Gamunex*<sup>®</sup> 10% with food and drink**

There are to date no known clinically relevant interactions with food and drink on simultaneous use of *Gamunex*<sup>®</sup> 10%.

**Pregnancy and breast-feeding**

If you are pregnant or breast-feeding you must tell your doctor. Your doctor will decide if *Gamunex* 10% can be used during pregnancy and breast-feeding.

Ask your doctor or pharmacist for advice before taking any medicine.

**Driving and using machines**

Dizziness can sometimes occur and might affect the ability to drive and use machines.

### **3. How to use *Gamunex*<sup>®</sup> 10%**

*Gamunex*<sup>®</sup> 10% is administered intravenously by your doctor as described at the end of this patient information. The dosage and the interval between infusions are dependent on the indication you are treated, your weight and your age should be individually adjusted. Please ask your doctor for the recommended dosages.

If you have the impression that the effect of *Gamunex*<sup>®</sup> 10% triggers too strong or too weak a reaction in your body, talk to your doctor or pharmacist.

#### **If you stop using *Gamunex*<sup>®</sup> 10%**

If treatment with this medicine is stopped, your clinical condition may worsen. Please talk to the doctor in charge of your treatment if you wish to end treatment with this medicine prematurely.

*If you have any further questions on the use of this product, ask your doctor or pharmacist.*

### **4. Possible side effects**

Like all medicines, *Gamunex*<sup>®</sup> 10% can cause side effects, although not everybody gets them.

Adverse reactions such as chills, headache, dizziness, fever, vomiting, allergic reactions (such as hives, skin rash and itching), nausea, arthralgia (joint pain), low blood pressure and moderate low back pain may occur occasionally.

Rarely human normal immunoglobulins may cause a sudden fall in blood pressure and in isolated cases, anaphylactic shock, even if you have shown no hypersensitivity to previous administration.

Cases of reversible aseptic meningitis (with symptoms such as severe headache, nausea, vomiting, fever, neck stiffness or diminished consciousness) and rare cases of transient cutaneous reactions have been observed with human normal immunoglobulin.

Reversible haemolytic reactions (destruction of red blood cells) have been observed in patients, especially those with blood groups A, B, and AB. Rarely, haemolytic anaemia requiring transfusion may develop after high doses of human normal immunoglobulins.

Increase in serum creatinine level (laboratory parameter for kidney function) and/or acute renal failure have been observed.

Very rarely: Thromboembolic reactions (blockages of blood vessels) such as myocardial infarction, stroke, pulmonary embolism, deep vein thromboses.

In clinical trials performed with *Gamunex*<sup>®</sup> the following side effects have been observed:

The following side effects were common (may affect up to 1 in 10 people):

- headache
- pyrexia (fever)

The following side effects were uncommon (may affect up to 1 in 100 people):

- white blood cell count decreased
- dizziness
- urticaria
- dermatitis
- pruritus (itching)

- rash
- abdominal pain
- diarrhoea
- nausea
- vomiting
- hypertension (increased blood pressure)
- hypotension (low blood pressure)
- pharyngitis (throat inflammation)
- cough
- nasal congestion
- wheezing
- arthralgia (joint pain)
- back pain
- neck pain
- shoulder pain
- chest pain
- influenza like illness
- malaise
- fatigue
- chills
- asthenia (weakness)
- injection site reaction

The following side effects were rare (may affect up to 1 in 1,000 people):

- haemolytic anaemia (destruction of red blood cells)
- dyspnoea (shortness of breath)
- sinusitis
- skin exfoliation
- anxiety
- myalgia (muscle pain)
- haemoglobin decreased
- dyspepsia (impaired digestion)
- contusion
- dermatitis (inflammation of the skin)
- flushing
- musculoskeletal stiffness
- palmar erythema (reddening of the palms)
- aphonia (inability to produce voice)

#### **What countermeasures should be taken if side effects occur?**

If side effects occur, the infusion rate should be reduced or the infusion should be suspended until the signs of the effects have disappeared. If the signs persist even after suspending the infusion, suitable treatment should be initiated.

In the event of a severe hypersensitivity reaction with a fall in blood pressure and dyspnoea to the point even of a severe generalised allergic reaction (anaphylactic shock), use of this medicine should be ceased immediately and appropriate countermeasures should be initiated.

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

## **5. How to store *Gamunex*<sup>®</sup> 10%**

Keep out of the sight and reach of children.

*Store in a refrigerator (+2 to +8 °C). Do not freeze.*

Do not use this medicine after the expiry date which is stated on the carton and the vial. The shelf life is 3 years.

The product may be stored in its outer carton for a one-off period of up to 6 months at room temperature (not above 25°C). In that case, the shelf life of the product expires after 6 months, irrespective of the original expiry date. The new expiry date must be noted on the outer carton and the vial label. The new expiry date must be no later than the printed expiry date, however. Subsequent refrigeration is not possible.

Once individual ampoules have been opened, the contents must be used immediately. Any remainder must be discarded. Further storage, even in a refrigerator, is not permitted on account of possible invasion of germs.

## **6. Contents of the pack and other information**

### **What *Gamunex*<sup>®</sup> 10% contains**

The active substance is human normal immunoglobulin (IVIg). One ml of this medicine contains 100 mg protein with an IgG content of at least 98% in water for injections.

One vial of 10 ml contains: 1 g of human normal immunoglobulin

One vial of 50 ml contains: 5 g of human normal immunoglobulin

One vial of 100 ml contains: 10 g of human normal immunoglobulin

One vial of 200 ml contains: 20 g of human normal immunoglobulin

The percentage of IgG subclasses is approximately: 62.8% (IgG<sub>1</sub>), 29.7% (IgG<sub>2</sub>), 4.8% (IgG<sub>3</sub>), 2.7% (IgG<sub>4</sub>).

IgA content: mean: 59 micrograms/ml; max.: 84 micrograms/ml; results taken from 5 different batches.

The other ingredient is glycine.

### **What *Gamunex*<sup>®</sup> 10% looks like and contents of the pack**

This medicine is a solution for infusion. The solution is clear to opalescent and colourless or pale yellow. *Gamunex*<sup>®</sup> 10% is available in pack sizes of 10 ml, 50 ml, 100 ml and 200 ml. The carton contains a vial made of glass with a rubber stopper, a tear-off hanger label and a package leaflet.

### **Marketing authorisation holder:**

Grifols Deutschland GmbH  
Lyoner Strasse 15

60528 Frankfurt  
Germany

Tel.: +49 69/660 593 100

**Manufacturer:**

Grifols Deutschland GmbH  
Lyoner Strasse 15  
60528 Frankfurt  
Germany

**This leaflet was approved on: XXX**

**Marketing authorisation number:** PA 1405/001/001

**This medicinal product is authorised in the Member States of the EEA under following names:**

*Austria, Belgium, Cyprus, Czech Republik, Germany, Denmark, Finland, Hungary,  
Ireland, Luxembourg, Netherlands, Poland, Portugal, Sweden and United Kingdom:* Gamunex<sup>®</sup> 10%

*Greece:* Gaminex<sup>®</sup> 10%.



***The following information is intended for medical or health care professionals only***

*Use only clear solutions for infusion – do not shake. Prior to infusion, bring Gamunex<sup>®</sup> 10% up to room or body temperature (possibly in a water bath at a temperature no higher than 37°C).*

The vials are supplied with a hanger label (Fig. 1). After inserting the giving set (Fig. 2), the vial is inverted and the loop section of the label is folded back (Fig. 3). *Firm finger pressure* is used to create a *crease* on each side where the loop section joins the rest of the label (Fig. 4). The vial is suspended from the infusion stand by the resulting loop (Fig. 5).

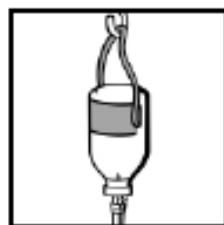
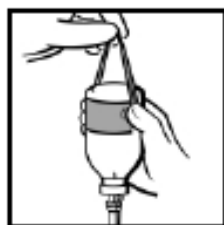




Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

*This medicine should initially be administered at an infusion rate of 0.6-1.2 ml/kg/hr (corresponding to approximately 45-90 ml/hr for a body weight of 75 kg). If the product is well tolerated, the rate of infusion may gradually be increased after approximately 30 minutes to a maximum of 4.8-8.4 ml/kg/hr (corresponding to 360-630 ml/hr for a body weight of 75 kg). In children or patients at risk of kidney failure, the maximum infusion rate should not exceed 4.8 ml/kg/hr. Please, refer to the SmPC for detailed dose recommendations.*

*Gamunex® 10% must not be mixed with other solutions for infusion and other medicines. If dilution is necessary prior to infusion, 50 mg/ml glucose solution may be used for this purpose. Do not dilute with saline solutions.*

*Simultaneous administration of Gamunex 10% and heparin through a single lumen delivery device must be avoided.*

*Gamunex® 10% infusion lines can be flushed with 50 mg/ml glucose or with sodium chloride solution (9 mg/ml) and should not be flushed with heparin.*

*Heparin Lock through which Gamunex 10 % was administered should be flushed with 50 mg/ml glucose or sodium chloride solution (9 mg/ml) and should not be flushed with heparin.*