**Package leaflet: Information for the user**

**LG-octaplas powder and solvent for solution for infusion**
ABO-blood group specific human plasma proteins

**Read all of this leaflet carefully before you start using this medicine because it contains important information for you.**
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor.
- 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. This includes any possible side effects not listed in this leaflet. See section 4.

**What is in this leaflet**:


## 1. What LG-octaplas is and what it is used for

LG-octaplas is human plasma pooled and treated for virus inactivation. Human plasma is the fluid part of human blood that carries the cells. It contains human plasma proteins which are important to maintain normal clotting characteristics and is used the same way as normal fresh-frozen plasma (FFP).

LG-octaplas helps in case of complex deficiencies of coagulation factors which can be caused by severe failure of the liver or massive transfusion. LG-octaplas may also be given in emergency situations when a coagulation factor concentrate (such as Factor V or Factor XI) is not available or a necessary laboratory diagnosis is not possible.

It may also be given to rapidly reverse the effects of oral anticoagulants (coumarin or indanedione type), when vitamin K is insufficient due to impaired liver function or in emergency situations.

LG-octaplas can be given to patients who undergo plasma exchange in order to restore the balance of the coagulation factors.

## 2. What you need to know before you use LG-octaplas

**Do not use LG-octaplas:**
- if you are allergic (hypersensitive) to human plasma proteins or any of the other ingredients of this medicine (listed in section 6) .
- if you know you have antibodies against the immunoglobulin called IgA.
- if you had previous reactions to any preparation of human plasma or FFP.
- if you know you have a low level of protein S (a Vitamin K dependent protein in your blood).

**Warnings and precautions**

Talk to your doctor before using LG-octaplas.
Tell your doctor if you have any other illnesses.

**Take special care with LG-octaplas**
- if you have a low level of immunoglobulin A.
- if you had previous reactions to plasma protein including FFP.
- if you are suffering from heart failure or fluid in the lungs (pulmonary oedema).
- if you have known risks for blood clotting (thrombotic) complications because of the potential increased risk of venous thromboembolism (clots forming in your veins).
- in case of increased inhibition of coagulation (fibrinolysis).

LG-octaplas is not generally recommended for the treatment of von Willebrand's Disease.

Virus safety
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 the 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 the 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 certain non-enveloped viruses such as hepatitis A virus, hepatitis E virus and Parvovirus B19.
It is strongly recommended that every time you receive a dose of LG-octaplas the name and batch number of the product are recorded in order to maintain a record of the batch used.
Your doctor may recommend that you consider vaccination against hepatitis A and B viruses if you regularly/repeatedly receive human plasma-derived products.

**Children**
Some cases of low calcium level, possibly caused by citrate binding, have been observed during therapeutic plasma exchange in children. Monitoring of calcium is recommended during such use of LG-octaplas.

**Other medicines and LG-octaplas**
During clinical trials, LG-octaplas has been administered in combination with various other medications, and no interactions have been identified.
With the administration of LG-octaplas you may also get substances (e.g. pregnancy hormone) that may result in false positive test results (e.g. positive pregnancy test even though you are not pregnant).

LG-octaplas may not be mixed with other intravenous fluids or medicines except red blood cells and blood platelets.
To avoid the possibility of blood clots, solutions containing calcium must not be administered by the same intravenous pathway as LG-octaplas.
There are no known reactions with other drugs.
Tell your doctor if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

**LG-octaplas with food and drink**
No effects have been observed.

**Pregnancy, breast-feeding and fertility**
If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before taking this medicine. You will only be given LG-octaplas if your doctor considers it important for you.

**Driving and using machines**
No effect has been observed upon the ability to drive or operate machinery. You alone are responsible to decide if you are in a fit condition to drive a motor vehicle or perform other tasks that demand increased concentration.

**Important information about some of the ingredients of LG-octaplas**
For a list of ingredients please refer to section 6.
This medicine contains maximum 920 mg sodium (main component of cooking/table salt) in each bottle. This is equivalent to maximum 46% of the recommended maximum daily dietary intake of sodium for an adult.

## 3. How to use LG-octaplas

LG-octaplas will be given to you by a doctor or nurse. It is given by an infusion into your veins. Your dosage depends upon your clinical situation and your body weight. Your doctor will determine the appropriate amount that you should receive.
- Before LG-octaplas can be given to you by infusion an ABO-blood group compatibility test must be performed.
- In emergency cases, LG-octaplas blood group AB can be given to all patients.

It is important that the infusion rate should not exceed 1 ml LG-octaplas per kg of your body weight per minute. Calcium gluconate may be given into another vein to minimise the negative effects of the citrate contained in LG-octaplas.

You should be observed during and at least for 20 minutes after the administration in case you develop an allergic reaction (anaphylactic reaction) or shock, in which case the infusion must be stopped immediately.

**Use in children and adolescents**
There is limited data in children and adolescents (0-16 years).

**If you use more LG-octaplas than you should**
High dosages may lead to fluid overload, fluid in lungs and/or heart problems.

**If you forget to use LG-octaplas**
Your doctor is responsible to supervise administration and to keep your laboratory values within the specified range.

**If you stop using LG-octaplas**
Based on laboratory values your doctor decides when to stop administration of LG-octaplas and will assess possible risks.

**Method of administration**
This medicine should be injected or infused into the veins after reconstitution with the supplied solvent. If you have any further questions on the use of this product, ask your doctor or pharmacist.

## 4. Possible side effects

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

Hypersensitivity reactions may rarely be observed. These are usually mild allergic type reactions consisting of localised or generalised reddening of the skin, hives or itching. More severe forms can be complicated by drop in blood pressure or swelling of the face or tongue. Severe whole-body allergic reactions may have a rapid onset and may be serious. Symptoms are drop in blood pressure, increase in heart rate, difficulty in breathing, wheezing, coughing, breathlessness, nausea, vomiting, diarrhoea, abdominal or back pain. Severe reactions may proceed to shock, unconsciousness, respiratory failure and very rarely even death.
Negative effects can be caused by the citrate contained in LG-octaplas and the related low calcium level especially if the infusion rate is high, if you have liver function disorders or if you are undergoing plasma exchange procedures. You may experience symptoms like fatigue, tingling feelings (paraesthesia), tremor and low calcium levels.

LG-octaplas may increase the risk of blood clots in veins of the:

- limbs, causing pain and swelling of limbs;
- lung, causing chest pain and breathlessness;
- brain, causing weakness and/or loss of sensation down one side of the body;
- heart, causing chest pain;

In all patients at risk for increased clotting of the blood special caution should be exercised and appropriate measures should be considered.
Rarely, incompatibility between antibodies in LG-octaplas and antigens in your blood can result in destruction of your red blood cells (haemolytic transfusion reactions). Symptoms are chills; fever; a non-productive cough; difficulty in breathing; rash; and bleeding within the body.
Infusion of LG-octaplas may give rise to specific coagulation factor antibodies.
High dosages or infusion rates may induce increased blood volume, fluid in the lungs and/or heart failure.

During clinical trials with LG-octaplas' predecessor product, and its post-approval use, the following side effects have been identified:

| System organ class | Common (≥ 1/100 to < 1/10) | Uncommon (≥ 1/1,000 to < 1/100) | Rare (≥ 1/10,000 to < 1/1,000) | Very rare (< 1/10,000) |
|---|---|---|---|---|
| Blood system disorders | | | | lack of red blood cells<br>bleeding tendency |
| Immune system disorders | | | hypersensitivity | serious allergic reaction and shock |
| Psychiatric disorders | | | | anxiety<br>agitation<br>restlessness |
| Nervous system disorders | | reduced sense of touch or sensation | | dizziness<br>tingling feelings |
| Cardiac disorders | | | | failure of the heart<br>irregular heartbeats<br>increase in heart rate |
| Blood vessels and circulatory disorders | | | | clot in blood vessels<br>drop in blood pressure<br>increase in blood pressure<br>failure of the blood circulation<br>reddening of the skin |
| Respiratory disorders | | lack of oxygen | | respiratory failure<br>bleeding in the lungs<br>constriction of the bronchi<br>fluid in the lungs<br>breathlessness |

| System organ class | Common (≥ 1/100 to < 1/10) | Uncommon (≥ 1/1,000 to < 1/100) | Rare (≥ 1/10,000 to < 1/1,000) | Very rare (< 1/10,000) |
|---|---|---|---|---|
| | | | | difficulty in breathing |
| Stomach and intestines disorders | | vomiting<br>nausea | | abdominal pain |
| Skin disorders | hives<br>itching | | | rash<br>increased sweating |
| Muscular and skeletal disorders | | | | back pain |
| General disorders and administration site conditions | | fever | | chest pain<br>chest discomfort<br>chills<br>localised swelling<br>general discomfort<br>application site reaction |
| Investigations | | | | antibody test positive<br>oxygen in blood decreased |
| Injury, poisoning and procedural complications | | | | increased blood volume<br>citrate poisoning<br>destruction of red blood cells |

Depending on type and severity of adverse reactions, the infusion rate must be reduced or the administration must be stopped. Appropriate action will be taken by your doctor.
If any of the side effects get serious, or if you notice any side effects not listed in this leaflet, please tell your doctor.

**Additional side effects in children**
In the course of plasma exchange procedures low calcium level may be observed in children especially in patients with liver function disorders or in case of high infusion rates. Monitoring of calcium is recommended during such use of LG-octaplas.

**Reporting of side effects**
If you get any side effects, talk to your doctor. This includes any possible side effects not listed in this leaflet. You can also report side effects directly (see details below). By reporting side effects you can help provide more information on the safety of this medicine. Reports may be made by following the links to the online reporting option accessible from the HPRA homepage, or by completing the downloadable report form also accessible from the HPRA website, which may be completed manually and submitted to the HPRA via freepost, to the following address:

HPRA Pharmacovigilance
Earlsfort Terrace
IRL - Dublin 2
Tel: +353 1 6764971
Fax: +353 1 6762517
Website: www.hpra.ie
e-mail: medsafety@hpra.ie

## 5. How to store LG-octaplas

Keep this medicine out of the sight and reach of children.
Do not use this medicine after the expiry date which is stated on the label after the abbreviation EXP.
Do not store above 25 °C.

Do not freeze.
Protect from light.

The powder should be dissolved only directly before infusion. The stability of the reconstituted solution has been demonstrated for 8 hours at room temperature (max. 25°C). Nevertheless, to prevent contamination, the solution should be used immediately and on one occasion only. The reconstituted product must not be stored in the refrigerator or freezer.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help to protect the environment.

## 6. Contents of the pack and other information

**What LG-octaplas contains**
- The active substances are ABO-blood group specific human plasma proteins. A bottle contains 9 – 14 g (45 - 70 mg/ml).
- The other ingredients are:
  Sodium dihydrogenphosphate dihydrate, Citric acid monohydrate, Phosphoric acid and Glycine

**What LG-octaplas looks like and contents of the pack**
LG-octaplas is presented as powder and solvent for solution for infusion in glass bottles.
Each package of LG-octaplas contains:
- 1 bottle with powder for solution for infusion with a stopper and a flip-off cap
- 190 ml solvent (water for injections) in a bag
- 1 transfer set
- 2 alcohol swabs

Pack size of one.
The powder is friable solid of almost white or slightly yellow colour.
The solvent is a clear and colourless liquid.

**Marketing Authorisation Holder:**
Octapharma (IP) SPRL
Allée de la Recherche 65
1070 Anderlecht
Belgium

**Manufacturers:**
Octapharma AB
SE-112 75 Stockholm, Sweden

**This leaflet was last revised in:**

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**The following information is intended for healthcare professionals only:**

## Dosage and administration

### Dosage

The dosage depends upon the clinical situation and underlying disorder, but 12-15 ml LG-octaplas/kg body weight is a generally accepted starting dose. This should increase the patient's plasma coagulation factor levels by approximately 25%.
It is important to monitor the response, both clinically and with measurement of e.g. activated partial thromboplastin time (aPTT), prothrombin time (PT), and/or specific coagulation factor assays.

Dosage for coagulation factor deficiencies:
An adequate haemostatic effect in minor and moderate haemorrhages or surgery in coagulation factor deficient patients is normally achieved after the infusion of 5-20 ml LG-octaplas/kg body weight. This should increase the patient's plasma coagulation factor levels by approximately 10-33 %. In the event of major haemorrhage or surgery, the expert advice of a haematologist should be sought.

Dosage for TTP and haemorrhages in intensive plasma exchange:
For therapeutic plasma exchange procedures, the expert advice of a haematologist should be sought.
In TTP patients the whole plasma volume exchanged should be replaced with LG-octaplas.

### Method of Administration

General instructions
Please read all the instructions and follow them carefully.
During the procedure described below, aseptic technique must be maintained.
The product generally reconstitutes within approximately 15 minutes at room temperature. If the powder is not dissolved within 30 minutes the product should be discarded.
After reconstitution the solution must be used immediately.

Reconstitution
1. Reconstitution of LG-octaplas should be done at room temperature. Remove the flip-off cap from the powder bottle (LG-octaplas) to expose the central portion of the rubber stopper. Disinfect the rubber stopper with an alcohol swab and allow the rubber stopper to dry.
2. Remove the blister from the transfer set and close the clamp on the transfer line.
3. Remove the outer packaging of the WFI bag. Remove the blue protective cap from the bag outlet. Do not touch the rubber stopper of the outlet to maintain sterility.
4. Connect the transfer set to the powder bottle (LG-octaplas) by perforating the rubber stopper centrally with the spike. Open the valve next to the spike.
5. Connect the transfer set to the WFI bag by pushing the needle through the blue outlet.
6. Make sure that the transfer set is well connected, hold/hang the WFI bag vertically above the powder bottle and open the clamp. The WFI flows automatically into the powder bottle (LG-octaplas). Start with gently swirling of the powder bottle during the WFI transfer.
7. When the transfer is completed remove the spike from the powder bottle and discard the transfer set and the empty WFI bag.
8. Continue with gently swirling of the powder bottle until the powder is fully dissolved. Do not shake the bottle to avoid foam formation. In general, the powder should be dissolved completely within approximately 15 minutes.

The reconstituted solution should be clear or slightly opalescent.
LG-octaplas must be administered by intravenous infusion using a vented infusion set with a filter to remove potential residual particulate matters.

Method of administration
Administration of LG-octaplas is to be performed blood-group specifically. In emergency cases, LG-octaplas blood group AB can be regarded as universal plasma since it can be given to all patients regardless of blood group.
After reconstitution, LG-octaplas is to be infused intravenously using vented infusion equipment with filters. An aseptic technique must be used throughout the infusion.

Citrate toxicity can occur when more than 0.020-0.025 mmol citrate per kg per minute is administered. Therefore, the infusion rate should not exceed 1 mL of LG-octaplas per kg per minute. Toxic effects of citrate can be minimised by giving calcium gluconate intravenously into another vein.

The reconstituted product should be administered at tolerable temperature to prevent hypothermia but not above 37°C.

Warnings and precautionary measures for the administration:
In case of anaphylactic reaction or shock, the infusion must be stopped immediately. Treatment should follow the guidelines for shock therapy.
Patients should be observed for at least 20 minutes after the administration.

Incompatibilities:
- LG-octaplas product can be mixed with red blood cells and platelets if ABO compatibility of both preparations is respected.
- LG-octaplas must not be mixed with other medicinal products, as inactivation and precipitation may occur.
- To avoid the possibility of clot formation, solutions containing calcium must not be administered by the same intravenous line as LG-octaplas.

Interference with serological testing:
Passive transmission of plasma components from LG-octaplas (e.g. β-human chorionic gonadotropin; β-HCG) may result in misleading laboratory results in the recipient. For example, a false-positive pregnancy test result has been reported following passive transmission of β-HCG.