

**ANNEX I**  
**SUMMARY OF PRODUCT CHARACTERISTICS**

## 1. NAME OF THE MEDICINAL PRODUCT

HyQvia 100 mg/mL solution for infusion for subcutaneous use

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

HyQvia is a dual vial unit consisting of one vial of human normal immunoglobulin (Immune Globulin 10% or IG 10%) and one vial of recombinant human hyaluronidase (rHuPH20).

### Human normal immunoglobulin (SCIg)\*

One mL contains:

Human normal immunoglobulin.	100 mg
(purity of at least 98% IgG)	

Each vial of 25 mL contains: 2.5 g of human normal immunoglobulin.  
Each vial of 50 mL contains: 5 g of human normal immunoglobulin.  
Each vial of 100 mL contains: 10 g of human normal immunoglobulin.  
Each vial of 200 mL contains: 20 g of human normal immunoglobulin.  
Each vial of 300 mL contains: 30 g of human normal immunoglobulin.

Distribution of the IgG subclasses (approx. values):

IgG<sub>1</sub> ≥ 56.9%

IgG<sub>2</sub> ≥ 26.6%

IgG<sub>3</sub> ≥ 3.4%

IgG<sub>4</sub> ≥ 1.7%

The maximum IgA content is 140 micrograms/mL.

\*Produced from the plasma of human donors.

### Recombinant human hyaluronidase (rHuPH20)

One mL contains:

<u>Recombinant human hyaluronidase.</u>	160 units
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Each vial of 1.25 mL contains: 200 units of recombinant human hyaluronidase.  
Each vial of 2.5 mL contains: 400 units of recombinant human hyaluronidase.  
Each vial of 5 mL contains: 800 units of recombinant human hyaluronidase.  
Each vial of 10 mL contains: 1600 units of recombinant human hyaluronidase.  
Each vial of 15 mL contains: 2400 units of recombinant human hyaluronidase.

### Excipients with known effects:

- Recombinant human hyaluronidase (rHuPH20)

The rHuPH20 is a purified glycoprotein of 447 amino acids produced in Chinese Hamster Ovary (CHO) cells by recombinant DNA technology.

- Sodium (as chloride and as phosphate)

The total sodium content of recombinant human hyaluronidase is 4.03 mg/mL.

For the full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Solution for infusion.

IG 10% is a clear or slightly opalescent and colourless or pale-yellow solution. The solution has a pH of 4.6 to 5.1 and an osmolality of 240 to 300 mOsmol/kg.

rHuPH20 is a clear, colourless solution. The solution has a pH of 6.5 to 8.0 and an osmolality of 290 to 350 mOsmol/kg.

### 4. CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

Replacement therapy in adults, children, and adolescents (0 to 18 years) in:

- Primary immunodeficiency syndromes (PID) with impaired antibody production (see section 4.4).
- Secondary immunodeficiencies (SID) in patients who suffer from severe or recurrent infections, ineffective antimicrobial treatment and either proven specific antibody failure (PSAF)\* or serum IgG level of < 4 g/L.

\*PSAF = failure to mount at least a 2-fold rise in IgG antibody titre to pneumococcal polysaccharide and polypeptide antigen vaccines.

Immunomodulatory therapy in adults, children, and adolescents (0 to 18 years) in:

- Chronic inflammatory demyelinating polyneuropathy (CIDP) as maintenance therapy after stabilization with IVIg.

#### 4.2 Posology and method of administration

Therapy should be initiated and monitored under the supervision of a physician experienced in the treatment of immunodeficiency/CIDP.

The medicinal product should be administered via the subcutaneous (SC) route. The dose and dose regimens are dependent on the indication.

The dose may need to be individualized for each patient dependent on the pharmacokinetic (PK) and clinical response. Dose based on bodyweight may require adjustment in underweight or overweight patients. The following dose regimens are given as a guideline.

##### **Posology**

###### Replacement therapy in PID

###### *Patients naïve to immunoglobulin therapy*

The dose required to achieve a trough level of 6 g/L is of the order of 0.4 to 0.8 g/kg body weight per month. The dose interval to maintain steady-state levels varies from 2-to-4 weeks.

IgG trough levels should be measured and assessed in conjunction with the incidence of infection. To reduce the rate of infection, it may be necessary to increase the dose and aim for higher IgG trough levels (> 6 g/L).

At the initiation of therapy, it is recommended that the treatment intervals for the first infusions be gradually prolonged from a 1-week dose to up to a 3- or 4-week dose. The cumulative monthly dose of

IG 10% should be divided into 1-week, 2-week etc. doses according to the planned treatment intervals with HyQvia.

#### *Patients previously treated with Intravenous immunoglobulin (IVIg)*

For patients switching directly from IVIg, or who have a previous IVIg dose that can be referenced, the medicinal product should be administered at the same dose and at the same frequency as their previous IVIg treatment. If patients were previously on a 3-week dosing regimen, increasing the interval to 4-weeks can be accomplished by administering the same weekly equivalents.

#### *Patients previously treated with subcutaneous immunoglobulin (SCIg)*

The initial dose of the medicinal product is the same as for SCIg treatment but may be adjusted to 3 - or 4-weeks interval. The first infusion should be given one week after the last treatment with the previous immunoglobulin.

#### Replacement therapy in SID

The recommended dose is 0.2 to 0.4 g/kg every 3 -to -4 weeks.

IgG trough levels should be measured and assessed in conjunction with the incidence of infection. Dose should be adjusted as necessary to achieve optimal protection against infections, an increase may be necessary in patients with persisting infection; a dose decrease can be considered when the patient remains infection free.

#### Immunomodulatory therapy in CIDP

Before initiating therapy, the weekly equivalent dose should be calculated by dividing the planned dose by the planned dose interval in weeks. The typical dosing interval range for HyQvia is 3 -to 4 - weeks. The recommended subcutaneous dose is 0.3 to 2.4 g/kg body weight per month, administered in 1-or 2-sessions over 1-or 2-days.

The patient's clinical response should be the primary consideration in dose adjustment. The dose may need to be adapted to achieve the desired clinical response. In clinical deterioration, the dose may be increased to the recommended maximum of 2.4 g/kg monthly. If the patient is clinically stable, periodic dose reductions may be needed to observe whether the patient still needs IG therapy.

A titration schedule that permits gradual dose increase over time (ramp-up) is recommended to ensure the patient's tolerability until the full dose is reached. During the titration schedule, the calculated HyQvia dose and recommended dose intervals must be followed for the first and second infusions. Depending on the treating physician's discretion, in patients who tolerate the first 2 infusions well, subsequent infusions may be administered by gradually increasing doses and dose intervals, considering the volume and total infusion time. An accelerated titration schedule may be considered if the patient tolerates the SC infusion volumes and the first 2 infusions. Doses less than or equal to 0.4 g/kg may be administered without a titration schedule, provided acceptable patient tolerance.

Patients must be on stable doses\* of IVIg. Before initiating therapy with the medicinal product, the weekly equivalent dose should be calculated by dividing the last IVIg dose by the IVIg dose interval in weeks. The starting dose and dosing frequency are the same as the patient's previous IVIg treatment. The typical dosing interval for HyQvia is 4-weeks. For patients with less frequent IVIg dosing (greater than 4-weeks), the dosing interval can be converted to 4-weeks while maintaining the same monthly equivalent IgG dose.

As shown in the table below, the calculated one-week dose (1<sup>st</sup> infusion) should be administered 2 - weeks after the last IVIg infusion. One week after the first dose, the next weekly equivalent dose (2<sup>nd</sup> infusion) should be administered. A titration schedule can take up to 9-weeks (Table 1), depending on the dosing interval and tolerability.

\*(Variations in the dosing interval of up to  $\pm 7$  days or monthly equivalent dose amount of up to  $\pm 20\%$  between the subject's IgG infusions are considered a stable dose.)

**Table 1: Recommended IVIg to HyQvia infusion dose titration schedule**

Week*	Infusion number	Dose interval	Example for 100 g every 4-weeks
1	<i>No infusion</i>		
2	1 <sup>st</sup> infusion	1-week-dose	25 g
3	2 <sup>nd</sup> infusion	1-week-dose	25 g
4	3 <sup>rd</sup> infusion	2-week-dose	50 g
5	<i>No infusion</i>		
6	4 <sup>th</sup> infusion	3-week-dose	75 g
7	<i>No infusion</i>		
8	<i>No infusion</i>		
9	5 <sup>th</sup> infusion	4-week-dose	100 g (Full dose reached)

\* 1<sup>st</sup> infusion starts 2-weeks after the last IVIg dose.

On a given infusion day, the maximum infusion volume should not exceed 1200 mL for patients weighing  $\geq 40$  kg or 600 mL for  $< 40$  kg. Suppose the maximum daily dose limit is exceeded or the patient cannot tolerate the infusion volume. In that case, the dose may be administered over multiple days in divided doses with 48-to 72-hours between doses to allow absorption of infusion fluid at the infusion site(s). The dose can be administered up to 3 infusion sites with a maximum infusion volume of 600 mL per site (or as tolerated). If using three sites, the maximum is 400 mL per site.

#### Paediatric population

##### *Replacement therapy*

The dosing schedule for children and adolescents (0 to 18 years) is the same as for adults. The dosing is based on body weight and adjusted to the clinical outcome. Currently, available data are described in sections 4.8, 5.1 and 5.2.

##### *Immunomodulatory therapy*

The dosing schedule for children and adolescents (0 to 18 years) is the same as for adults. The dosing is based on the calculated weekly equivalent dose and adjusted to the clinical outcome. Currently, available data are described in sections 4.8, 5.1 and 5.2.

#### Method of administration

**The medicinal product is for subcutaneous use only, do not administer intravenously.**

Each vial of IG 10% is supplied with the appropriate corresponding quantity of rHuPH20 (see section 6.5). The full contents of the rHuPH20 vial should be administered regardless of whether the full content of the IG 10% vial is administered.

The 2 components of the medicinal product must be administered sequentially through the same subcutaneous needle beginning with the rHuPH20 followed by IG 10%.

Example: Patient is prescribed 110 grams (g) of HyQvia: This will require 3 vials of 30 g and 1 vial of 20 g for the total dose of 110 g/1100 mL of the IG 10% component of HyQvia. The volume of rHuPH20 will be  $(3 \times 15 \text{ mL} + 1 \times 10 \text{ mL}) = 55 \text{ mL}$ . If the dose is greater than 120 g, HyQvia may be administered over multiple days in divided doses with 48-to 72-hours between doses to allow absorption of infusion fluid at the infusion site(s).

Infusion site leakage can occur during or after subcutaneous administration of immunoglobulin, including HyQvia. Consider using longer needles (12 mm or 14 mm) and/or more than one infusion site. Any change of needle size would have to be supervised by the treating physician.

### Home-treatment

In case subcutaneous infusion of HyQvia is used for home treatment, therapy should be initiated and monitored by a physician experienced in the guidance of patients for home treatment. The patient or a caregiver must be instructed in infusion techniques, the use of an infusion pump or syringe driver, the keeping of a treatment diary, recognition of possible severe adverse reactions and measures to be taken in case these occur.

HyQvia can be administered in a full therapeutic dose at up to 3 infusion sites up to every 4-weeks. Adjust the frequency and number of infusion sites, considering volume, total infusion time, and tolerability so that the patient receives the same weekly equivalent dose. If a patient misses a dose, administer the missed dose as soon as possible and then resume scheduled treatments as applicable.

### Device-assisted infusion

The IG 10% component should be infused using a pump. The rHuPH20 may be hand-pushed or infused by a pump. A 24-gauge needle may be required to allow patients to infuse at flow rates of 300 mL/hr/infusion site. However, needles with smaller diameters may be used if slower flow rates are acceptable. For the 1.25 mL rHuPH20 vial size use an 18-to 22-gauge needle to withdraw the contents of the vial to prevent stopper push through or coring; for all other vial sizes a needle or needleless device may be used to withdraw the contents of the vial.

### Infusion site

The suggested site(s) for the infusion of the medicinal product are the middle to upper abdomen and thighs. If 2 sites are used, the 2 infusion sites should be on contra lateral sides of the body. If using three infusion sites, the sites should be at least 10 cm apart. Avoid bony prominences, or scarred areas. The product should not be infused at or around an infected or acutely inflamed area due to the potential risk of spreading a localized infection. Avoid at least 5 cm away from the umbilicus.

### Infusion rate

It is recommended that the rHuPH20 component be administered at a constant rate and that the rate of administration of the IG 10% should not be increased above the recommended rates, particularly when the patient has just started with HyQvia therapy.

First, the full dose of rHuPH20 solution is infused at a rate of 1 to 2 mL/minute (or 60 mL/hr to 120 mL/hr) per infusion site or as tolerated. Within 10 minutes of the rHuPH20, start the infusion of the full dose per site of IG 10% through the same subcutaneous needle set.

The following infusion rates of the IG 10% are recommended per infusion site.

**Table 2 : The recommended infusion rates of the IG 10% per infusion site**

Interval/ Minutes	Subjects < 40 kg		Subjects ≥ 40 kg	
	First 2 infusions (mL/hour/infusion site)	Subsequent 2 to 3 infusions (mL/hour/infusion site)	First 2 infusions (mL/hour/infusion site)	Subsequent 2 to 3 infusions (mL/hour/infusion site)
10 minutes	5	10	10	10
10 minutes	10	20	30	30
10 minutes	20	40	60	120
10 minutes	40	80	120	240
Remainder of infusion	80	160	240	300

If the patient tolerates the initial infusions at the full dose per site and maximum rate, an increase in the rate of successive infusions may be considered at the discretion of the physician and the patient.

For instructions on the handling and preparation of the medicinal product before administration, see section 6.6.

#### 4.3 Contraindications

HyQvia must not be given intravenously or intramuscularly.

Hypersensitivity to the active substance (IgG) or to any of the excipients listed in section 6.1 (see section 4.4).

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

Known systemic hypersensitivity to hyaluronidase or rHuPH20.

#### 4.4 Special warnings and precautions for use

##### Traceability

In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded.

##### Precautions for use

If HyQvia is accidentally administered into a blood vessel, patients could develop shock.

The recommended infusion rate given in section 4.2 should be adhered to. Patients must be closely monitored throughout the infusion period, particularly patients starting with therapy.

Certain adverse reactions may occur more frequently in patients who receive human normal immunoglobulin for the first time or, in rare cases, when the human normal immunoglobulin product is switched or when there has been a long interval since the previous infusion.

Potential complications can often be avoided by:

- initially infusing the product slowly (see section 4.2).
- ensuring that patients are carefully monitored for any symptoms throughout the infusion period. In particular, patients naive to human normal immunoglobulin, patients switched from an alternative immunoglobulin product or when there has been a long interval since the previous

infusion should be monitored during the first infusion and for the first hour after the first infusion, to detect potential adverse signs.

All other patients should be observed for at least 20 minutes after the administration.

When treatment is given at home, support from another responsible person should be available for treating adverse reactions or to summon help should a serious adverse reaction occur. Patients on self-home treatment and/or their guardian should also be trained to detect early signs of hypersensitivity reactions.

In case of adverse reaction, either the rate of administration must be reduced, or the infusion stopped. The treatment required depends on the nature and severity of the adverse reaction. In case of shock, immediately discontinue the infusion and treat the patient for shock.

No chronic changes in the skin were observed in the clinical studies. Patients should be reminded to report any chronic inflammation, nodules or inflammation that occurs at the infusion site and lasts more than a few days.

#### Hypersensitivity to IG 10%

True hypersensitivity reactions are rare. They can particularly occur in patients with anti-IgA antibodies who should be treated with particular caution. Patients with anti-IgA antibodies, in whom treatment with SCIg products remains the only option, should be treated with HyQvia only under close medical supervision.

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

- If a patient is at high risk for any allergic reactions, the medicinal product should be administered only where supportive care is available for life threatening reactions.
- Patients should be informed of the early signs of anaphylaxis/hypersensitivity (hives, pruritus, generalized urticaria, tightness of the chest, wheezing, and hypotension).
- Depending on the severity of associated reaction, and medical practice, pre-medication may prevent this type of reaction.
- If known anaphylactic or severe hypersensitivity to human immunoglobulin exists, it should be noted in the patient records.

#### Hypersensitivity to rHuPH20

Any suspicion of allergic or anaphylactic like reactions following rHuPH20 administration requires immediate discontinuation of the infusion and standard medical treatment should be administered, if necessary.

#### Immunogenicity of rHuPH20

Development of non-neutralizing antibodies and neutralizing antibodies to the rHuPH20 component has been reported in patients receiving HyQvia in clinical studies. The potential exists for such antibodies to cross-react with endogenous hyaluronidase, which is known to be expressed in the adult male testes, epididymis, and sperm. It is unknown whether these antibodies may have any clinical significance in humans (see section 4.8).



## Thromboembolism

Arterial and venous thromboembolic events including myocardial infarction, stroke, deep venous thrombosis, and pulmonary embolism have been associated with the use of immunoglobulins. Patients should be sufficiently hydrated before using immunoglobulins. Caution should be exercised in patients with pre-existing risk factors for thromboembolic events (such as advanced age, hypertension, diabetes mellitus and a history of vascular disease or thrombotic episodes, patients with acquired or inherited thrombophilic disorders, patients with prolonged periods of immobilization, severely hypovolaemic patients, patients with diseases which increase blood viscosity). Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity. Thrombosis may also occur in the absence of known risk factors.

Patients should be informed about first symptoms of thromboembolic events including shortness of breath, pain and swelling of a limb, focal neurological deficits and chest pain and should be advised to contact their physician immediately upon onset of symptoms.

## Haemolytic anaemia

Immunoglobulin products contain antibodies to blood groups (e.g. A, B, D) which may act as haemolysins. These antibodies bind to red blood cells (RBC) epitopes (which may be detected as a positive direct antiglobulin test [DAT, (Coombs' test)] and, rarely, may cause haemolysis. Immunoglobulin product recipients should be monitored for clinical signs and symptoms of haemolysis.

## Aseptic meningitis syndrome (AMS)

Aseptic meningitis syndrome has been reported to occur in association with IVIg and SCIG treatment; the symptoms usually begin within several hours to 2 days following immunoglobulin treatment. Patients should be informed about the first symptoms which encompass severe headache, neck stiffness, drowsiness, fever, photophobia, nausea, and vomiting. Discontinuation of immunoglobulin treatment may result in remission of AMS within several days without sequelae. Cerebrospinal fluid studies are frequently positive with pleocytosis up to several thousand cells per mm<sup>3</sup>, predominantly from the granulocytic series, and elevated protein levels up to several hundred mg/dL.

AMS may occur more frequently in association with high-dose (2 g/kg) IVIg treatment. From post-marketing data no clear correlation of AMS to higher doses was observed. Higher incidences of AMS were seen in women.

## Interference with serological testing

After infusion of immunoglobulins, 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's surface antigens, (e.g., A, B, D) may interfere with some serological tests for red cell antibodies for example the direct antiglobulin test (DAT, direct Coombs' test).

Infusions of immunoglobulin products may lead to false positive readings in assays that depend on detection of  $\beta$ -D-glucans for diagnosis of fungal infections; this may persist during the weeks following infusion of the product.

## Transmissible agents

Human normal immunoglobulin and human serum albumin (stabilizer of the rHuPH20) are produced from human plasma. 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 infectious 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 human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV), and for the non-enveloped hepatitis A (HAV) and parvovirus B19 viruses.

There is reassuring clinical evidence 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 viral safety.

#### Sodium content

The IG 10% component is essentially sodium-free. The rHuPH20 contains the following amount (mg) of sodium per vial:

1.25 mL contains 5.0 mg of sodium.  
2.5 mL contains 10.1 mg of sodium.  
5 mL contains 20.2 mg of sodium.  
10 mL contains 40.3 mg of sodium.  
15 mL contains 60.5 mg of sodium.

This is equivalent to 0.25 to 3% of the WHO recommended maximum daily intake of 2 g sodium for an adult.

#### Paediatric population

The listed warnings and precautions apply both to adults and children.

### **4.5 Interaction with other medicinal products and other forms of interaction**

#### Live attenuated virus vaccines

Immunoglobulin administration may impair for a period of at least 6-weeks and up to 3-months the efficacy of live attenuated virus vaccines such as measles, rubella, mumps, and varicella. After administration of this medicinal product, an interval of 3-months should elapse before vaccination with live attenuated virus vaccines. In the case of measles, this impairment may persist for up to 1 year. Therefore, patients receiving measles vaccine should have their antibody status checked.

#### Paediatric population

The listed interactions apply both to adults and children.

### **4.6 Fertility, pregnancy and lactation**

#### Pregnancy

The safety of this medicinal product for use in human pregnancy has not been established in controlled clinical studies and therefore should only be given with caution to pregnant women and breast-feeding mothers.

Nine women ever treated with HyQvia were enrolled in a prospective, uncontrolled, multicentre post- authorisation Pregnancy Registry (Study 161301). Of the 8 pregnancies with known outcomes, there were 8 live births with normal APGAR scores. There were no specified labour or delivery

complications. No adverse events were reported as related to this medicinal product. Four (4) mothers were tested for anti-rHuPH20 binding, or neutralizing antibodies and no antibodies were detected.

Immunoglobulin products have been shown to cross the placenta, increasingly during the third trimester. Clinical experience with immunoglobulins suggests that no harmful effects on the course of pregnancy, or on the foetus and the neonate are to be expected.

Development and reproductive toxicology studies have been conducted with rHuPH20 in mice and rabbits. No adverse reactions on pregnancy and foetal development were associated with anti-rHuPH20 antibodies. In these studies, maternal antibodies to rHuPH20 were transferred to offspring in utero. The effects of antibodies to the rHuPH20 component of this medicinal product on the human embryo or on human foetal development are currently unknown (see section 5.3).

#### Breast-feeding

Immunoglobulins are excreted into the milk and may contribute to protecting the neonate from pathogens which have a mucosal portal of entry. One infant in the Pregnancy Registry (Study 161301) was breastfed. All adverse events were reported as not related to previous or current HyQvia treatment.

#### Fertility

There are currently no clinical safety data for this medicinal product on fertility available.

Clinical experience with immunoglobulins suggests that no harmful effects of IG 10% on fertility are to be expected.

Animal studies do not indicate direct or indirect harmful effects of rHuPH20 with respect to reproductive potential at the doses used for facilitating administration of IG 10% (see section 5.3).

#### **4.7 Effects on ability to drive and use machines**

The ability to drive and operate machines may be impaired by some adverse reactions e.g., dizziness (see section 4.8) associated with this medicinal product. Patients who experience adverse reactions during treatment should wait for these to resolve before driving or operating machines.

#### **4.8 Undesirable effects**

##### Summary of the safety profile

The most frequently reported adverse reactions (Ars) of HyQvia were local reactions. The most frequently reported systemic Ars were headache, fatigue, nausea, and pyrexia. The majority of these Ars were mild to moderate.

##### *IG 10%*

Adverse reactions such as chills, headache, dizziness, fever, vomiting, allergic reactions, nausea, arthralgia, 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 when the patient has shown no hypersensitivity to previous administration.

Local reactions at infusion sites: swelling, soreness, redness, induration, local heat, itching, bruising and rash, may frequently occur.

Cases of transient aseptic meningitis, transient haemolytic reactions, increase in serum creatinine level and/or acute renal failure have been observed with human normal immunoglobulin, see section 4.4.

Thromboembolic reactions such as myocardial infarction, stroke, pulmonary embolism, and deep vein thrombosis have been rarely observed with IVIg and SCIg products.

#### *rHuPH20*

The most frequent adverse reactions reported during post-marketing use of rHuPH20 in similar formulations administered subcutaneously for the dispersion and absorption of subcutaneously administered fluids or medicinal products have been mild local infusion site reactions such as erythema and pain. Oedema has been reported most frequently in association with large volume subcutaneous fluid administration.

#### *Antibodies against rHuPH20*

A total of 13 out of 83 subjects who participated in pivotal PID study developed an antibody capable of binding to rHuPH20 at least once during the clinical study. These antibodies were not capable of neutralizing rHuPH20. No temporal association between adverse reactions and the presence of anti-rHuPH20 antibodies could be demonstrated. There was no increase in incidence or severity of adverse reactions in patients who developed antibodies to rHuPH20.

A total of 16 out of 132 patients who received rHuPH20 developed anti-rHuPH20 binding antibodies at least once in CIDP studies that included 196 patient-years of follow-up. One subject had transient neutralizing antibodies at a single measurement over a 3-year follow-up period. No efficacy or safety issues were identified with neutralizing antibody positivity.

For safety with respect to transmissible agents, see section 4.4.

#### Tabulated list of adverse reactions

The safety of HyQvia was evaluated in 4 clinical studies (160602, 160603, 160902, and 161101) in 124 unique patients with PID receiving 3,202 infusions and 2 clinical studies (161403 and 161505) in 100 unique patients with CIDP receiving 3,188 infusions.

The table presented below is according to the MedDRA System Organ Classification (SOC and Preferred Term Level).

Frequencies per infusion have been evaluated using the following convention: Very common ( $\geq 1/10$ ), common ( $\geq 1/100$  to  $< 1/10$ ), uncommon ( $\geq 1/1\ 000$  to  $< 1/100$ ), rare ( $\geq 1/10\ 000$  to  $< 1/1\ 000$ ), very rare ( $< 1/10\ 000$ ), not known (cannot be estimated from available data). Within each frequency grouping, undesirable effects are presented in order of decreasing seriousness.

Adverse Drug Reactions (ADRs) are selected based on the assessment by the sponsor. All occurrences of an ADR (during or after the first dose) are presented in the table, regardless of the relationship assessed by the investigator. For analysis purposes, certain preferred terms were collapsed.

**Table 3: Frequency of Adverse drug reactions (ADR) per infusion reported in patients treated with HyQvia in clinical studies and post-marketing surveillance, reporting rate per patient or per infusion.**

MedDRA System Organ Class (SOC)	Adverse drug reactions	Frequency per patient	Frequency per infusion
Infections and Infestations	Meningitis aseptic	Not Known	Not Known

<b>MedDRA System Organ Class (SOC)</b>	<b>Adverse drug reactions</b>	<b>Frequency per patient</b>	<b>Frequency per infusion</b>
Immune System disorders	Hypersensitivity	Not Known	Not Known
Nervous system disorders	Headache	Very Common	Common
	Dizziness	Common	Uncommon
	Migraine	Common	Uncommon
	Tremor	Common	Uncommon
	Paraesthesia	Common	Uncommon
	Cerebrovascular accident and Ischaemic stroke	Uncommon	Rare
Cardiac disorders	Sinus tachycardia and Tachycardia	Common	Uncommon
Vascular disorders	Blood pressure increased and Hypertension	Very Common	Uncommon
	Hypotension	Common	Rare
Respiratory, thoracic, and mediastinal disorders	Dyspnoea	Common	Rare
Gastrointestinal disorders	Nausea	Very Common	Common
	Abdominal pain, Abdominal pain lower, Abdominal pain upper and Abdominal tenderness	Very Common	Common
	Diarrhoea	Very Common	Uncommon
	Vomiting	Very Common	Uncommon
	Abdominal distension	Common	Uncommon
Skin and subcutaneous tissue disorders	Erythema	Common	Common
	Pruritus	Common	Uncommon
	Rash, Rash erythematous, Rash macular, Rash maculo-papular and Rash papular	Common	Uncommon
	Urticaria	Common	Uncommon
Musculoskeletal and connective tissue disorders	Myalgia	Common	Uncommon
	Arthralgia	Very Common	Uncommon
	Limb discomfort and Pain in extremity	Common	Uncommon
	Back pain	Common	Uncommon
	Joint stiffness	Uncommon	Uncommon
	Musculoskeletal chest pain	Common	Uncommon
	Groin pain	Common	Rare
Renal and urinary disorders	Haemosiderinuria	Common	Rare
General disorders and administration site conditions	• Local reactions (Total)	Very Common	Very Common
	- Infusion site discomfort, Infusion site pain, Injection site pain, Puncture site pain and Tenderness	Very Common	Common
	- Infusion site erythema and Injection site erythema	Very Common	Common
	- Infusion site oedema, Injection site oedema, Infusion site swelling, Injection site swelling and Swelling (local)	Very Common	Common

<b>MedDRA System Organ Class (SOC)</b>	<b>Adverse drug reactions</b>	<b>Frequency per patient</b>	<b>Frequency per infusion</b>
	- Infusion site pruritus, Injection site pruritus, Puncture site pruritus and Vulvovaginal pruritus	Very Common	Common
	- Infusion related reaction	Common	Uncommon
	- Infusion site bruising, Injection site bruising, Infusion site haematoma, Injection site haematoma, Infusion site haemorrhage and Vessel puncture site bruise	Common	Uncommon
	- Infusion site reaction, Injection site reaction and Puncture site reaction	Common	Uncommon
	- Infusion site mass, Injection site mass and Infusion site nodule	Common	Uncommon
	- Infusion site discoloration	Common	Uncommon
	- Infusion site rash and Injection site rash	Common	Uncommon
	- Infusion site induration and Injection site induration	Common	Uncommon
	- Infusion site warmth	Common	Rare
	- Infusion site paraesthesia and Injection site paraesthesia	Common	Rare
	- Infusion site inflammation	Common	Rare
	- Feeling hot and Pyrexia	Very Common	Common
	- Infusion site leakage	Not Known	Not Known
	- Influenza-like illness	Not Known	Not Known
	Asthenia, Fatigue, Lethargy and Malaise	Very Common	Common
	Chills	Common	Uncommon
	Oedema, Oedema peripheral and Swelling (systemic)	Common	Uncommon
	Localised oedema, Peripheral swelling and Skin oedema	Common	Uncommon
	Gravitational oedema, Oedema genital, Scrotal swelling and Vulvovaginal swelling	Common	Uncommon
	Burning sensation	Uncommon	Uncommon
	Hyperhidrosis	Common	Rare
Investigations	Coombs direct test positive and Coombs test positive	Common	Rare

#### Description of selected adverse reactions

The most common local reactions observed during the pivotal clinical studies include infusion site pain, infusion site erythema and infusion site oedema. Most of the local reactions were mild in severity and self-limited. In the PID studies, 2 instances of local adverse reactions were severe (infusion site pain and infusion site swelling) and in the CIDP studies 4 instances were severe (infusion site extravasation, infusion site inflammation, infusion site pruritus and infusion site reaction). In the PID studies, there were 2 instances of transient genital oedema, one considered severe, that resulted from diffusion of the medicinal product from the infusion site in the abdomen. In the CIDP studies there was one mild instance of genital oedema (penile swelling). No skin changes were observed that did not resolve during the clinical study.

## Paediatric population

### *PID*

In the pivotal study 160603 there were 2 of the 24 paediatric patients with total anti-rHuPH20 antibody levels at or above 1:160. None had neutralising antibodies.

A prospective, Phase 4, multicentre study in Europe evaluated 42 paediatric subjects (age 2 to < 18 years) who had received prior immunoglobulin therapy (Study 161504). No new safety concerns were identified. No subject was positive (titre  $\geq$  160) for binding anti-rHuPH20 antibodies. HyQvia was found to be safe and tolerable among paediatric subjects (2 to < 18 years old) with PIDD.

Results of clinical studies indicate similar safety profiles in adults and paediatric population, including the nature, frequency, seriousness, and reversibility of adverse reactions.

### *CIDP*

HyQvia has not been evaluated in clinical studies in children or adolescent patients (0 to 18 years) with CIDP.

## Elderly Patients

### Primary Immunodeficiency

Post-authorisation safety studies (EU 161302, US 161406) included 15 and 77 elderly subjects, respectively. Overall, no significant safety differences were observed between PID subjects above 65 years and those between 18 and 65 years old.

## Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in [Appendix V](#).

## **4.9 Overdose**

The consequences of an overdose are not known.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: immune sera and immunoglobulins: immunoglobulins, normal human, for extravascular administration, ATC code: J06BA01.

### Mechanism of action

The IG 10% component provides the therapeutic effect of this medicinal product. The rHuPH20 facilitates the dispersion and absorption of IG 10%.

Human normal immunoglobulin contains mainly immunoglobulin G (IgG) with a broad spectrum of opsonising and neutralizing antibodies against infectious agents. Human normal immunoglobulin contains the IgG antibodies present in the normal population. It is usually prepared from pooled human plasma from not fewer than 1000 donations. It has a distribution of IgG subclasses closely proportional to that in native human plasma. Adequate doses of human normal immunoglobulin may

restore abnormally low IgG levels to the normal range. The mechanism of action in indications other than replacement therapy is not fully elucidated but includes immunomodulatory effects.

Recombinant human hyaluronidase is a soluble recombinant form of human hyaluronidase that increases the permeability of the subcutaneous tissue by temporarily depolymerizing hyaluronan. Hyaluronan is a polysaccharide found in the intercellular matrix of the connective tissue. It is depolymerized by the naturally occurring enzyme hyaluronidase. Unlike the stable structural components of the interstitial matrix, hyaluronan has a very fast turnover with half-life of approximately 0.5 days. The rHuPH20 of HyQvia acts locally. The effects of the hyaluronidase are reversible, and permeability of the subcutaneous tissue is restored within 24 to 48 hours.

### Clinical efficacy and safety

#### *PID*

Efficacy and safety of HyQvia was assessed in a phase 3 study (160603) in 83 patients with PID. Patients were treated with it at either 3- or 4-week treatment intervals for a total of 12-months (following a brief titration period). The dose was based on the previous treatment with intravenous IG 10% (320 to 1000 mg/kg body weight /4-weeks) and was individually adapted, ensuring adequate IgG levels throughout the study.

The results of the study showed a rate of validated, acute, serious bacterial infections per year during HyQvia treatment of 0.025 (upper limit of the one-sided 99% confidence interval 0.046). The overall rate of infections was less during HyQvia administration than during the 3-months intravenous administration of IG 10%: the point estimate of the annualized rate of all infections was 2.97 (95% CI: 2.51 to 3.47) for HyQvia and 4.51 (95% CI: 3.50 to 5.69) for intravenous IG 10% infusions.

Nearly all of the subjects were able to attain the same dose interval with HyQvia as they had for intravenous administration. Seventy-eight (78) of 83 (94%) subjects attained the same 3- or 4-week dosing whereas one decreased from 4-to 3-weeks, one from 4-to 2-weeks and one from 3-to 2-weeks (2-subjects withdrew during the titration period).

The median number of infusion sites per month for HyQvia was 1.09, which is slightly lower than the median number of intravenous IG 10% infusion sites used in this study (1.34), and considerably lower than the median number of infusion sites in the study of subcutaneous administration of IG 10% (21.43).

Sixty-six (66) patients who completed the pivotal phase 3 study participated in an extension study (160902) for the evaluation of long-term safety, tolerability, and efficacy of HyQvia in PID. The overall combined exposure of PID patients in both studies was 187.69 patient years; the longest exposure for adults was 3.8-years and 3.3-years for paediatric patients.

#### Study 161302 (EU):

This non-interventional post-authorisation safety study on the long-term safety of HyQvia in subjects treated with HyQvia was carried out for approximately 6 years. A total of 111 adult subjects were enrolled in the study. The mean age of the study population was 46.2 (standard deviation [SD]=14.69) years, and 14.2% (n=15) of the subjects were 65 years or older. Over half of the subjects were female (n=60, 56.6%), of whom 56.7% were of childbearing potential. This study confirms the known safety profile of HyQvia.

#### Study 161406 (US):

This non-interventional post-authorisation safety study on the long-term safety of HyQvia was carried out for approximately 6 years. A total of 253 adult subjects with PID were enrolled. The median age



was 57.0 years, 30.4% (n=77) were 65 years or older, and 79.1% (n=200) were female, 22.5% (n=45) of whom were of childbearing potential. This study confirms the known safety profile of HyQvia.

### *CIDP*

#### *Study 161403 (ADVANCE-1):*

In a multicentre, randomized, placebo-controlled, phase 3 study, 132 adult subjects with CIDP underwent evaluation of the efficacy, safety, and tolerability of HyQvia as a maintenance therapy to prevent relapse that allows self-infusion of a total therapeutic dose every 2- to 4-weeks. The study enrolled subjects  $\geq 18$  years of age (male or female) at the time of screening who had a documented diagnosis of definite or probable CIDP as per the European Federation of Neurological Societies/Peripheral Nerve Society (EFNS/PNS) 2010 criteria. All eligible subjects had responded to IgG treatment in the past (partial or complete resolution of neurological symptoms and deficits) and were on a stable dose of IVIg treatment within the dose range equivalent to a cumulative monthly dose of 0.4 to 2.4 g/kg body weight administered intravenously for at least 12-weeks before screening. The primary endpoint was the proportion of subjects who experienced a relapse, defined as an increase of  $\geq 1$  point relative to the pre-SC treatment baseline score in 2 consecutive adjusted inflammatory neuropathy cause and treatment (INCAT) disability scores obtained less than seven days apart. The analysis of the primary endpoint employing appropriate post-hoc strategies to handle intercurrent events and missing outcome values using multiple imputation revealed a relapse rate of 15.5% (95% CI: 8.36, 26.84) in the HyQvia and 31.7% (95% CI: 21.96, 43.39) in the placebo groups. The treatment difference was -16.2 (95% CI: -29.92, -1.27), favouring HyQvia over placebo.

### Paediatric population

#### *PID*

In the pivotal studies, HyQvia was evaluated in 24 paediatric patients, including 13 patients between 4 and  $< 12$  years and 11 between 12 and  $< 18$  years, who were treated for up to 3.3-years with an overall safety experience equivalent to 48.66 patient years (as described in section Clinical efficacy and safety). No appreciable differences in the pharmacodynamic effects or efficacy and safety of HyQvia were observed between paediatric patients and adults. See sections 4.2 and 4.8.

The medicinal product was evaluated in 42 paediatric subjects (age 2 to  $< 18$  years), in a Phase 4, non-controlled, multicentre study in paediatric subjects who had received prior immunoglobulin therapy. No new safety concerns were identified in paediatric subjects with PID.

The European Medicines Agency has deferred the obligation to submit the results of studies with HyQvia in one or more subsets of the paediatric population in treatment of PID as model for replacement therapy. See section 4.2 for information on paediatric use.

#### *CIDP*

HyQvia has not been evaluated in clinical studies in children or adolescent patients (0 to 18 years) with CIDP.

## **5.2 Pharmacokinetic properties**

Following subcutaneous administration of HyQvia in PID patients, peak serum IgG levels are achieved in the recipient's circulation after approximately 3 to 5 days.

IgG and IgG complexes are broken down in cells of the reticuloendothelial system.

## PID

The pharmacokinetics (PK) of HyQvia were evaluated in a clinical study (160601, 160602 and 160603) in patients with PID aged 12 years and older. Data from the PID clinical studies show that serum IgG trough levels can be maintained by dosing regimens of 320 to 1000 mg/kg body weight/4-weeks given at intervals of 3- or 4-weeks.

The pharmacokinetic results are presented in the table below, as compared to data for intravenous administration of IG 10% obtained in the same study.

**Table 4: Pharmacokinetic Parameters of HyQvia Compared to Intravenous Administration of IG 10%**

<b>Parameter</b>	<b>HyQvia Median (95% CI) N=60</b>	<b>IVIg 10% Median (95% CI) N=68</b>
C <sub>max</sub> [g/l]	15.5 (14.5; 17.)	21.9 (20.7; 23.9)
C <sub>min</sub> [g/l]	10.4 (9.4 to 11.2)	10.1 (9.5 to 10.9)
AUC per week [g*days/l]	90.52 (83.8 to 9)	93.9 (89.1 to 102.1)
T <sub>max</sub> [days]	5.0 (3.3 to 5.1)	0.1 (0.1 to 0.1)
Apparent clearance or clearance [mL/kg/day]	1.6 (1.4 to 1.79)	1.4 (1.2 to 1.4)
Terminal half-life [days]	45.3 (41.0 to 60.2)	35.7 (32.4 to 40.4)

## CIDP

The complete pharmacokinetic profile of HyQvia was not evaluated in the clinical study (161403) in patients with CIDP aged 18 years and older. Only the serum trough levels of total IgG were assessed throughout the study. Overall, during the treatment periods with HyQvia, serum trough levels of total IgG remained stable. For subjects who developed a relapse and switched to IVIg (n=6), the serum trough levels of total IgG also appeared stable throughout the treatment periods on HyQvia or IVIg.

The median serum trough levels of total IgG in CIDP were approximately 40% greater than in PID.

## Paediatric population

### *PID*

In the clinical study with HyQvia, no differences in the plasma IgG trough levels were observed between adult and paediatric patients.

### *CIDP*

HyQvia has not been evaluated in clinical studies in children or adolescent patients (0 to 18 years) with CIDP.

## **5.3 Preclinical safety data**

Immunoglobulins are normal constituents of the human body.

The safety of IG 10% has been demonstrated in several non-clinical studies. Non-clinical data reveal no special risk for humans based on conventional studies of safety pharmacology and toxicity. Studies of repeated dose toxicity, genotoxicity, and toxicity to reproduction in animals are impracticable due to induction of and interference by developing antibodies to heterologous proteins.

Long term animal studies to evaluate the carcinogenic or mutagenic potential of rHuPH20 have not been conducted. No adverse reactions on fertility were observed in mice, rabbits and cynomolgus monkeys exposed to antibodies that bind to rHuPH20 and species-specific hyaluronidase. Reversible infertility has been observed in male and female guinea pigs immunized to produce antibodies to hyaluronidase. However, antibodies to hyaluronidase did not influence reproduction following immunization of mice, rabbits, sheep, or cynomolgus monkeys. The effects of antibodies that bind to rHuPH20 on human fertility are unknown.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

#### Human normal immunoglobulin (IG 10%) vial

Glycine  
Water for injections

#### Recombinant human hyaluronidase (rHuPH20) vial

Sodium chloride  
Sodium phosphate dibasic  
Human albumin  
Ethylenediaminetetraacetic acid (EDTA) disodium  
Calcium chloride  
Sodium hydroxide (for pH adjustment)  
Hydrochloric acid (for pH adjustment)  
Water for injections

### **6.2 Incompatibilities**

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

### **6.3 Shelf life**

3-years.

### **6.4 Special precautions for storage**

Store in a refrigerator (2°C – 8°C).  
Do not freeze.  
Keep the vials in the outer carton in order to protect them from light.

### **6.5 Nature and contents of container**

#### Human normal immunoglobulin (IG 10%) vial

25, 50, 100, 200 or 300 mL of solution in a vial (Type I glass) with a stopper (bromobutyl rubber).

#### Recombinant human hyaluronidase (rHuPH20) vial

1.25, 2.5, 5, 10 or 15 mL of solution in a vial (Type I glass) with a stopper (chlorobutyl rubber).

Pack size:  
One vial of IG 10% and one vial of rHuPH20 in a dual vial unit.

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal and other handling**

The medicinal product should be brought to room temperature before use. Do not use heating devices including microwaves.

IG 10% is a clear or slightly opalescent and colourless or pale-yellow solution. rHuPH20 is a clear, colourless solution.

This medicinal product is comprised of 2 vials. Both vials should be inspected visually for particulate matter and discoloration prior to administration. Solutions that are cloudy or have deposits should not be used.

Do not shake.

Do not mix the components of HyQvia prior to administration.

Do not use vented vial access devices to remove rHuPH20 from vials.

Use aseptic technique when preparing and administering HyQvia. In cases where more than one vial of the medicinal product IG 10% or rHuPH20 is required to obtain the required dose of the infusion, the IG 10% and/or rHuPH20 should be prepared separately in appropriate solution containers before administration. Partially used vials should be discarded.

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

## **7. MARKETING AUTHORISATION HOLDER**

Baxalta Innovations GmbH  
Industriestrasse 67  
A-1221 Vienna, Austria

## **8. MARKETING AUTHORISATION NUMBER(S)**

EU/1/13/840/001  
EU/1/13/840/002  
EU/1/13/840/003  
EU/1/13/840/004  
EU/1/13/840/005

## **9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 16 May 2013  
Date of renewal: 8 Jan 2018

## **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. MANUFACTURERS OF THE BIOLOGICAL ACTIVE SUBSTANCE(S)  
AND MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING  
AUTHORISATION**
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND  
EFFECTIVE USE OF THE MEDICINAL PRODUCT**

**A. MANUFACTURERS OF THE BIOLOGICAL ACTIVE SUBSTANCE(S) AND MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**

Name and address of the manufacturers of the biological active substance(s)

Baxalta Belgium Manufacturing SA  
Boulevard René Branquart 80  
B-7860 Lessines  
Belgium

Name and address of the manufacturers responsible for batch release

Baxalta Belgium Manufacturing SA  
Boulevard René Branquart 80  
B-7860 Lessines  
Belgium

**B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**

Medicinal product subject to restricted medical prescription (see Annex I: Summary of Product Characteristics, section 4.2).

- **Official batch release**

In accordance with Article 114 of Directive 2001/83/EC, the official batch release will be undertaken by a state laboratory, or a laboratory designated for that purpose.

**C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION**

- **Periodic safety update reports (PSURs)**

The requirements for submission of PSURs for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c (7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal.

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

- **Risk management plan (RMP)**

The marketing authorisation holder (MAH) shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency.
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

- **Additional risk minimisation measures**

Prior to the launch (where applicable) or use of HyQvia in each Member State the MAH must agree about the content and format of the programme, including communication media, distribution modalities, and any other aspects of the programme, with the National Competent Authority.

The educational materials are aimed at ensuring the appropriate sequence of administration of HyQvia and its excipients, to mitigate the risk of drug administration error in patients who participate in home administration.

The MAH shall ensure that in each Member State where HyQvia is marketed, all health care professionals and patients who are expected to use HyQvia have access to/are provided with the following educational material:

- **Physician educational material**
- **Patient information pack**

**Physician educational material:**

- The Summary of Product Characteristics
- Guide for healthcare professionals (HCP)

**Guide for Healthcare Professionals (HCPs):**

- Information on HyQvia, including the approved indication according to the SmPC.
- Detailed description of the administration procedures for infusing HyQvia with a syringe driver pump and with a peristaltic infusion pump with counselling points to emphasize with the patient at each process step.
  - Proper preparation and administration of HyQvia (i.e., infusion of the recombinant human hyaluronidase vial (HY) before the human normal immunoglobulin 10% vial (IG)).
  - Following aseptic technique.
  - Identification of early signs and symptoms of potential adverse events (e.g., local infusion site reactions, allergic-type hypersensitivity reactions) and measures to be taken in case reactions occur, including when to contact the HCP.
- Patients and/or their caregivers will be asked to demonstrate to the HCP trainer that they can successfully administer HyQvia. Proper techniques should be reviewed at regular intervals.
- The importance of reporting adverse reactions such as infusion-related reactions and allergic-type hypersensitivity reactions.

**The patient information pack:**

- Patient information leaflet
- A patient/carer guide
- A patient diary

- **Patient/carer guide:**
  - A detailed, step-by-step description of the correct preparation and administration technique for infusing HyQvia.
  - Detailed description for the self-administration, infusion of HyQvia with a syringe driver pump and with a peristaltic infusion pump.
  - A description of the potential risks(s) associated with the use of HyQvia namely: local infusion site reactions and allergic-type hypersensitivity reactions (signs and symptoms)
  - Recommendations for managing possible adverse events associated with HyQvia treatment as well as when to contact the HCP.
  - Importance of reporting adverse events along with instructions on how to report.
  - Website feature allows for clickable animations to guide patients through administration sequence.
  
- **Patient diary:**
  - An infusion log will be provided to document the time, date, dose, infusion-site location, and any reactions the patient experiences.
  - The infusion log will also include a description of precaution(s) needed to minimise the potential adverse events associated with the use of HyQvia.
  - The infusion log will help facilitate regular monitoring of the patient's health status and facilitate discussions with the HCP.



**ANNEX III**  
**LABELLING AND PACKAGE LEAFLET**

## **A. LABELLING**

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER CARTON (2.5 G, 5 G, 10 G, 20 G AND 30 G)**

**1. NAME OF THE MEDICINAL PRODUCT**

HyQvia 100 mg/mL solution for infusion for subcutaneous use  
human normal immunoglobulin

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

Human normal immunoglobulin vial: 100 mg/mL, at least 98% is IgG  
Maximum immunoglobulin A (IgA) content: 140 micrograms/mL.

**3. LIST OF EXCIPIENTS**

Human normal immunoglobulin vial: Glycine, water for injections.

Recombinant human hyaluronidase vial: human hyaluronidase. Sodium chloride, sodium phosphate, human albumin, ethylenediaminetetraacetic acid disodium, calcium chloride, water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

Solution for infusion for subcutaneous use

1 vial human normal immunoglobulin

2.5 g/25 mL

5 g/50 mL

10 g/100 mL

20 g/200 mL

30 g/300 mL

1 vial recombinant human hyaluronidase

1.25 mL

2.5 mL

5 mL

10 mL

15 mL

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

For subcutaneous use only.  
Read the package leaflet before use.

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

Keep out of the sight and reach of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

Do not shake.  
Do not mix the 2 vials prior to administration.  
Infuse first the recombinant human hyaluronidase.

**8. EXPIRY DATE**

EXP

**9. SPECIAL STORAGE CONDITIONS**

Store in a refrigerator.

Do not freeze.  
Keep the vials in the outer carton in order to protect them from light.

**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**

Baxalta Innovations GmbH  
A-1221 Vienna, Austria

**12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/13/840/001 2.5 g/25 mL  
EU/1/13/840/002 5 g/50 mL  
EU/1/13/840/003 10 g/100 mL  
EU/1/13/840/004 20 g/200 mL  
EU/1/13/840/005 30 g/300 mL

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY**

**15. INSTRUCTIONS ON USE**

**16. INFORMATION IN BRAILLE**

HyQvia 100 mg/mL

**17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

**18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGING**

**VIAL LABEL HUMAN NORMAL IMMUNOGLOBULIN (5 G, 10 G, 20 G AND 30 G)**

**1. NAME OF THE MEDICINAL PRODUCT**

HyQvia 100 mg/mL infusion for subcutaneous use  
human normal immunoglobulin

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

Immunoglobulin: 100 mg/mL, at least 98% is IgG  
Maximum immunoglobulin A (IgA) content: 140 micrograms/m.

**3. LIST OF EXCIPIENTS**

Glycine, water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

Infusion for subcutaneous use.

1 vial

5 g/50 mL

10 g/100 mL

20 g/200 mL

30 g/300 mL

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Subcutaneous use only.

Infuse 2<sup>nd</sup>.

Read the package leaflet before use.

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

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

**8. EXPIRY DATE**

EXP

**9. SPECIAL STORAGE CONDITIONS**

Store in a refrigerator.

Do not freeze.

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

**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**

Baxalta Innovations GmbH  
A-1221 Vienna, Austria

**12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/13/840/002 5 g/50 mL  
EU/1/13/840/003 10 g/100 mL  
EU/1/13/840/004 20 g/200 mL  
EU/1/13/840/005 30 g/300 mL

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY****15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE****17. UNIQUE IDENTIFIER – 2D BARCODE****18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**  
**VIAL LABEL HUMAN NORMAL IMMUNOGLOBULIN (2.5 G)**

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

HyQvia 100 mg/mL infusion for subcutaneous use  
human normal immunoglobulin  
SC use only.

**2. METHOD OF ADMINISTRATION**

Infuse 2<sup>nd</sup>.

Read the package leaflet before use.

**3. EXPIRY DATE**

EXP

**4. BATCH NUMBER**

Lot

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

2.5 g/25 mL

**6. OTHER**



**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**  
**VIAL LABEL RECOMBINANT HUMAN HYALURONIDASE (2.5 ML, 5 ML, 10 ML, 15 ML)**

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

Infusion for subcutaneous use for HyQvia  
hyaluronidase  
Subcutaneous use only.

**2. METHOD OF ADMINISTRATION**

Infuse 1<sup>st</sup>.

Read the package leaflet before use.

**3. EXPIRY DATE**

EXP

**4. BATCH NUMBER**

Lot

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

2.5 mL  
5 mL  
10 mL  
15 mL

**6. OTHER**

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**  
**VIAL LABEL RECOMBINANT HUMAN HYALURONIDASE (1.25 ML)**

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

Infusion for subcutaneous use for HyQvia  
hyaluronidase  
SC use only.

**2. METHOD OF ADMINISTRATION**

Infuse 1<sup>st</sup>.

Read the package leaflet before use.

**3. EXPIRY DATE**

EXP

**4. BATCH NUMBER**

Lot

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

1.25 mL

**6. OTHER**

**B. PACKAGE LEAFLET**

## Package leaflet: Information for the user

### HyQvia 100 mg/mL solution for infusion for subcutaneous use human normal immunoglobulin

**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, pharmacist or nurse.
- 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, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

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

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

#### **1. What HyQvia is and what it is used for**

##### **What HyQvia is**

HyQvia contains 2 solutions for infusion (drip) under the skin (subcutaneous or SC infusion). It is supplied as a package containing:

- one vial of human normal immunoglobulin 10% (the active substance)
- one vial of recombinant human hyaluronidase (a substance which helps the human normal immunoglobulin 10% reach your blood).

Human normal immunoglobulin 10% belong to a class of medicines called “human normal immunoglobulins”. Immunoglobulins are also known as antibodies and are found in healthy people’s blood. Antibodies are part of the immune system (the body’s natural defences) and help your body to fight infections.

##### **How HyQvia works**

The recombinant human hyaluronidase is a protein that makes it easier for the immunoglobulins to be infused (dripped) under the skin and to reach your blood system.

The vial of immunoglobulins has been prepared from the blood of healthy people. Immunoglobulins are produced by the human body’s immune system. They help your body to fight infections caused by bacteria and viruses or maintain the balance in your immune system (referred to as immunomodulation). The medicine works in the same way as the immunoglobulins naturally present in the blood.

## What HyQvia is used for

### Replacement therapy in adults and children (0 to 18 years)

HyQvia is used in patients with a weak immune system, who do not have sufficient antibodies in their blood and tend to get frequent infections, including the following groups:

- patients with an inborn inability or reduced ability to produce antibodies (primary immunodeficiencies).
- patients who experience severe or recurrent infections due to a weakened immune system resulting from other conditions or treatments (secondary immunodeficiencies).

Regular and sufficient doses of HyQvia can raise abnormally low immunoglobulin levels in your blood to normal levels (replacement therapy)

### Immunomodulatory therapy in adults, children, and adolescents (0 to 18 years)

HyQvia is used in adults, children, and adolescents (0 to 18 years) patients with chronic inflammatory demyelinating polyneuropathy (CIDP), a form of autoimmune disease. CIDP is characterised by chronic inflammation of the peripheral nerves that causes muscle weakness and/or numbness mainly in the legs and arms. It is believed that the body's own defense system attacks the peripheral nerves and causes nerve damage and inflammation. Immunoglobulins present in HyQvia are thought to help protect the nerves from being damaged by the immune system.

## 2. What you need to know before you use HyQvia

### Do not inject or infuse HyQvia

- if you are allergic to immunoglobulins, hyaluronidase, recombinant hyaluronidase or any of the other ingredients of this medicine (listed in section 6, "Contents of the pack and other information").
- if you have antibodies against immunoglobulin A (IgA) in your blood. This may occur if you have IgA deficiency. Since HyQvia contains trace amounts of IgA, you might have an allergic reaction.
- into a blood vessel (intravenously) or into a muscle (intramuscularly).

### Warnings and precautions

Talk to your doctor or nurse before using HyQvia.

- ▶ Tell your doctor or healthcare professional prior to treatment if any of the circumstances listed below applies to you:
- You or your child may be allergic to immunoglobulins without knowing it. Allergic reactions such as sudden fall in blood pressure or anaphylactic shock (a sharp fall in blood pressure with other symptoms such as swelling of the throat, breathing difficulties and skin rash) are rare but they can occasionally occur even if you have not previously had problems with similar treatments. You are at increased risk of allergic reactions if you have IgA deficiency with anti-IgA antibodies. Signs or symptoms of these rare allergic reactions include:
  - feeling light-headed, dizzy or faint,
  - skin rash and itchiness, swelling in the mouth or throat, difficulty breathing, wheezing,
  - abnormal heart rate, chest pain, blueness of lips or fingers and toes,
  - blurred vision.

- ▶ If you notice any of these signs during the infusion, tell your doctor or nurse immediately. He or she will decide whether to slow down the infusion rate or stop the infusion completely.

Your doctor or nurse will infuse recombinant human hyaluronidase (HY) followed by immunoglobulin (IG) slowly and carefully monitor you throughout the 1<sup>st</sup> infusion so that any allergic reaction can be detected and treated immediately.

- Your doctor will take special care if you are overweight, are elderly, have diabetes, have been bedridden for a long time, have high blood pressure, have low blood volume (hypovolaemia), have problems with your blood vessels (vascular diseases), have an increased tendency for blood clotting (thrombophilia or thrombotic episodes) or have a disease or a condition which causes your blood to thicken (hyper viscous blood). In these circumstances, immunoglobulins may increase the risk of heart attack (cardiac infarction), stroke, blood clots in the lung (lung embolism), or blockage of a blood vessel in the leg, although only very rarely.
  - ▶ If you notice any of these signs and symptoms, including shortness of breath, pain, swelling of a limb and chest pain during the infusion, tell your doctor or nurse immediately. They will decide whether to slow the infusion rate or stop it completely.

Your doctor or nurse will carefully monitor you throughout the infusions so that any thromboembolic events can be detected and treated immediately.

- You will receive this medicine in high doses either on 1 day or 2 days, and if you have a blood group A, B, or AB and have an underlying inflammatory condition. In these circumstances, it has been commonly reported that immunoglobulins increase the risk of the breakdown of red blood cells (haemolysis).
- Inflammation of the membranes that surround the brain and spinal cord (Aseptic meningitis syndrome) has been reported to occur in association with immunoglobulin treatment.
  - ▶ If you notice any of these signs and symptoms, including severe headache, neck stiffness, drowsiness, fever, photophobia, nausea, and vomiting after the infusion, tell your doctor or nurse immediately.

Your doctor will decide if further tests are necessary and whether HyQvia should be continued.

### Infusion speed

It is very important to infuse the medicine at the correct speed. Your doctor or nurse will advise you on the appropriate infusion speed to use when you are infusing HyQvia at home (see section 3, “**How to use HyQvia**”).

### Monitoring during infusion

Certain side effects may occur more frequently if:

- you are receiving HyQvia for the first time.
- you have received another immunoglobulin and have been switched to HyQvia.
- there has been a long interval (e.g., more than 2 or 3 infusion intervals) since you last received HyQvia.
  - ▶ In such cases, you will be closely monitored during your first infusion and for the first hour after your infusion has stopped.

In all other cases you should be monitored during the infusion and for at least 20 minutes after you receive HyQvia for the first few infusions.

### Home treatment

Before you start home treatment you should assign a person as guardian. You and your guardian will be trained to detect early signs of side effects, especially allergic reactions. This guardian should help you keep an eye on potential side effects. During the infusion you must look out for the first signs of side effects (for further details see section 4, “**Possible side effects**”).

- ▶ If you experience any side effects, you or your guardian must stop the infusion immediately and contact a doctor.
- ▶ If you experience a severe side effect, you or your guardian must seek emergency treatment immediately.

### Spread of localised infections

Do not infuse HyQvia into or around an infected or red swollen area on your skin because it may cause the infection to spread.

No long-term (chronic) changes in the skin were observed in the clinical studies. Any long-term inflammation, lumps (nodules) or inflammation that occur at the infusion site and last more than a few days should be reported to your physician.

### Effects on blood tests

HyQvia contains many different antibodies, some of which can affect blood tests (serological tests).

- ▶ Tell your doctor about your treatment with HyQvia before any blood test.

### Information on the source material of HyQvia

The human normal immunoglobulin 10% of HyQvia and human serum albumin (an ingredient of the recombinant human hyaluronidase) are made from human plasma (the liquid part of blood). 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, and
- the testing of each donation and pools of plasma for signs of viruses/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 used, 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 for the manufacture of HyQvia are considered effective for enveloped viruses such as human immunodeficiency virus (HIV), hepatitis B virus and hepatitis C virus and for the non-enveloped 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 HyQvia, are protective.

- ▶ It is strongly recommended that every time you use HyQvia, the following data are recorded in your treatment diary:
  - the name of the product
  - the date of administration,
  - the batch number of the medicine, and
  - the injected volume, flow rate, the number and location of infusion sites.

### **Children and adolescents**

#### *Replacement therapy*

The same indications, dose, and frequency of infusion as for adults apply for children and adolescents (0 to 18 years).

### *Immunomodulatory therapy in CIDP patients*

The safety and effectiveness of HyQvia have not been established in children and adolescents (0 to 18 years) with CIDP.

### **Other medicines and HyQvia**

Tell your doctor, pharmacist, or nurse if you are taking, have recently taken or might take any other medicines.

### Vaccinations

HyQvia may reduce the effect of some virus vaccines such as measles, rubella, mumps, and chicken pox (live virus vaccines). Therefore, after receiving HyQvia, you may have to wait for up to 3 -months before receiving certain vaccines. You may have to wait for up to 1 year after receiving HyQvia before you can receive your measles vaccine.

- ▶ Please tell your vaccinating doctor or nurse about your treatment with HyQvia.

### **Pregnancy, breast-feeding and fertility**

The data on the effects of long-term use of recombinant human hyaluronidase on pregnancy, breast-feeding and fertility are limited. HyQvia should only be used by pregnant and breast-feeding women after discussion with your physician.

### **Driving and using machines**

Patients may experience side effects (for example dizziness or nausea) during treatment with HyQvia that might affect the ability to drive and use machines. If this happens, you should wait until the reactions have disappeared.

### **HyQvia contains sodium**

This medicine contains 5.0 to 60.5 mg sodium (main component of cooking/table salt) in each recombinant human hyaluronidase vial of HyQvia. This is equivalent to 0.25 to 3% of the recommended maximum daily dietary intake of sodium for an adult. The IG 10% component is essentially sodium-free.

## **3. How to use HyQvia**

Always use this medicine exactly as your doctor has told you. Check with your doctor if you are not sure.

### **HyQvia has to be infused under the skin (subcutaneous or SC administration).**

Treatment with HyQvia will be started by your doctor or nurse, but you may be allowed to use the medicine at home once you have received the first few infusions under medical supervision and you (and/or your guardian) have been adequately trained. You and your doctor will decide if you can use HyQvia at home. Do not begin treatment with HyQvia at home until you have received complete instructions.

### Dosing

#### *Replacement therapy*

Your doctor will calculate the correct dose for you based on your body weight, any previous treatment you may have received and your response to treatment. The recommended starting dose is one that



supplies 400 to 800 mg of active substance per kg of bodyweight per month. In the beginning you will receive one quarter of this dose at 1-week intervals. This will be increased step-wise to larger doses at 3- to 4-week intervals with the next infusions. Sometimes your doctor may recommend that larger doses are split and given at 2 sites at once. Your doctor may also adjust your dose depending on your response to treatment.

### *Immunomodulatory therapy*

Your doctor will calculate the correct dose for you based on the previous treatments you may have received and your response to treatment. Therapy typically begins 1-to 2-weeks after your last immunoglobulin infusion, delivered subcutaneously at the calculated weekly equivalent dose. Your doctor may adjust the dose and frequency based on your response to treatment.

In case the maximum daily dose is exceeded (>120 g) or if you can't tolerate the immunoglobulin infusion volume, the dose may be divided and given over multiple days, with 48 to 72 hours between doses for proper absorption and the administration of hyaluronidase should also be divided appropriately.

### Starting treatment

Your treatment will be started by a doctor or nurse experienced in treating patients with a weak immune system (immunodeficiency) and CIDP in guiding patients for home treatment. You will be watched carefully throughout the infusion and for at least 1 hour after stopping the infusion to see how well you tolerate the medicine. In the beginning your doctor or nurse will use a slow infusion speed and gradually increase it during the first infusion and in the following infusions. Once the doctor or nurse has found the right dose and speed of infusion for you, you may be allowed to give the treatment to yourself at home.

### Home treatment

Do not use HyQvia at home until you get instructions and training from your healthcare professional.

You will be instructed in:

- Germ-free (aseptic) infusion techniques,
- The use of an infusion pump or syringe driver (if needed),
- Keeping a treatment diary, and
- Measures to be taken in case of severe side effects.

You must carefully follow your doctor's instructions regarding the dose, infusion speed and schedule for infusing HyQvia so that your treatment works for you.

The following infusion rates of the IG 10% are recommended per infusion site:

Interval/Minutes	Subjects < 40 kg		Subjects ≥ 40 kg	
	First 2 Infusions (mL/hour/infusion site)	Subsequent 2 to 3 Infusions (mL/hour/infusion site)	First 2 Infusions (mL/hour/infusion site)	Subsequent 2 to 3 Infusions (mL/hour/infusion site)
10 minutes	5	10	10	10
10 minutes	10	20	30	30
10 minutes	20	40	60	120
10 minutes	40	80	120	240
Remainder of infusion	80	160	240	300

The infusion rates above are for a single infusion site. In case the patient requires 2 or 3 infusion sites the infusion rates may be adjusted accordingly, (i.e., doubled or tripled based on the maximum infusion rate of the pump)

**If you have an infusion site leakage**

Ask your doctor or pharmacist or nurse if another needle size would be more appropriate for you. Any change of needle size would have to be supervised by the treating physician.

**If you use more HyQvia than you should**



If you think that you used more HyQvia than you should, speak to your doctor as soon as possible.

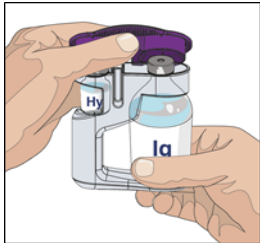
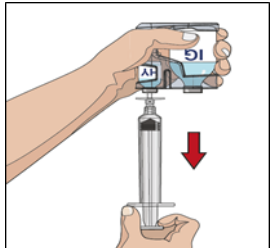
**If you forget to use HyQvia**

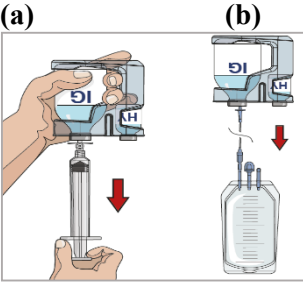

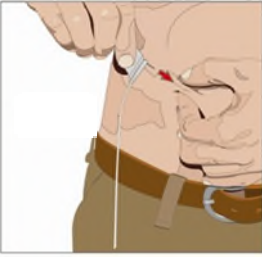
Do not infuse a double dose of HyQvia to make up for a missed dose. If you think that you have missed a dose speak to your doctor as soon as possible.

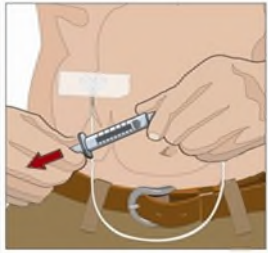
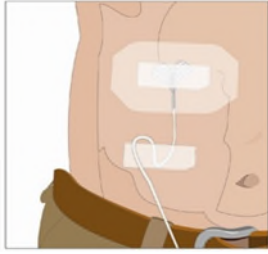
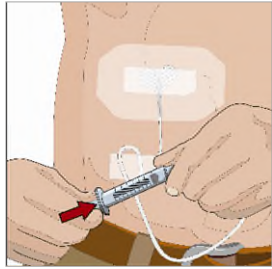
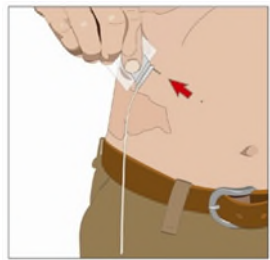
If you have any further questions on the use of this medicine, ask your doctor, or pharmacist or nurse.

**Detailed Instructions for Use are provided in the section below.**

<p><b>1. Remove HyQvia from the box:</b></p> <ul style="list-style-type: none"> <li>• Allow vials to reach room temperature. This may take up to 60 minutes. Do not use heating devices including microwave.</li> <li>• <b>Do not heat up or shake HyQvia.</b></li> <li>• <i>Check each vial of HyQvia before using:</i> <ul style="list-style-type: none"> <li>• <b>Expiry date:</b> Do not use beyond expiration date.</li> <li>• <b>Colour:</b> <ul style="list-style-type: none"> <li>○ The recombinant human hyaluronidase should be clear and colourless.</li> <li>○ The human normal immunoglobulin 10% should be clear and colourless or pale yellow.</li> <li>○ If either liquid is cloudy or has particles, do not use.</li> </ul> </li> <li>• <b>Cap:</b> Purple protective cap is on the dual vial unit. Do not use the product if it does not have the cap.</li> </ul> </li> </ul>	
<p><b>2. Gather all supplies:</b> Collect <i>all items</i> for your infusion. Items include dual vial unit(s) of HyQvia, infusion supplies (subcutaneous needle set, solution container (bag or syringe), sterile clear bandage and tape, pump tubing, transfer devices, syringes, gauze, and tape), sharps container, pump, and treatment logbook and other supplies as needed.</p>	
<p><b>3. Prepare a clean work area.</b></p>	
<p><b>4. Wash hands:</b> Wash your hands thoroughly. Place all gathered supplies and open them as directed by your healthcare professional.</p>	

<p><b>5. Open HyQvia dual vial unit(s):</b></p> <ul style="list-style-type: none"> <li>Remove purple protective cap(s) and make sure the blue vial caps are removed. If not, manually remove the blue caps to expose the vial stoppers.</li> <li>Prepare to transfer the recombinant human hyaluronidase component of HyQvia by wiping each vial stopper with an alcohol swab, if directed and allow to air dry (at least 30 seconds).</li> </ul>	
<p><b>6. Prepare recombinant human hyaluronidase vial (HY):</b></p> <ul style="list-style-type: none"> <li>Remove the smaller sterile syringe from package and attach it to a nonvented spike or needle (device).</li> <li>Pull back on the plunger, fill the smaller syringe with air equal to the amount of recombinant human hyaluronidase in the HY vial(s).</li> <li>Remove the cap of needle/non-vented transfer device.</li> <li>Insert the tip of the needle/non-vented transfer device into the centre of the vial stopper and push straight downward. Push the air into the vial.</li> <li>Turn the vial upside down, with the needle/non-vented transfer device remaining in the vial. The syringe tip will be pointing upward.</li> <li>Withdraw the full contents of the recombinant human hyaluronidase into the syringe.</li> <li>Repeat Step 6, if more than one vial of recombinant human hyaluronidase is needed for your dose.</li> <li>If possible, combine all of the recombinant human hyaluronidase needed for the entire dose of IgG into the same syringe.</li> <li>Point the syringe tip up and remove any air bubbles by pointing the syringe tip up and gently tapping the syringe with your finger. Slowly and carefully push the plunger to remove any remaining air.</li> </ul>	
<p><b>7. Prepare the needle set with the recombinant human hyaluronidase (HY):</b></p> <p><b>IF using the push method to deliver (HY):</b></p> <ul style="list-style-type: none"> <li>Attach the syringe filled with recombinant human hyaluronidase to the needle set.</li> <li>Push the plunger of smaller syringe to remove the air and fill the needle set up to the needle wings with the recombinant human hyaluronidase. <ul style="list-style-type: none"> <li><i>Note:</i> Your healthcare professional may recommend using a “Y” connector (for more than one site) or other needle set configuration.</li> </ul> </li> </ul> <p><b>IF using the pump method to deliver (HY):</b></p> <ul style="list-style-type: none"> <li>Attach the syringe filled with recombinant human hyaluronidase (HY) to the pump tubing and attach the needle set.</li> <li>Push the plunger of syringe (size may vary due to a larger volume) to remove the air and fill the pump tubing and needle set up to the needle wings with the recombinant human hyaluronidase.</li> </ul>	

<p><b>8. Prepare human normal immunoglobulin 10% vial:</b></p> <ul style="list-style-type: none"> <li>• Prepare to transfer the immunoglobulin 10% component of HyQvia by wiping each vial stopper with a separate alcohol swab, if directed and allow to air dry (at least 30 seconds).</li> <li>• The human normal immunoglobulin 10% of HyQvia may be infused either, <ul style="list-style-type: none"> <li>○ by pooling from the vials either into larger syringe <b>(a)</b> or an infusion bag <b>(b)</b> as directed by your healthcare professional, depending upon the pump to be used; or</li> <li>○ directly from the IG vial. Insert the spike of the vented pump tubing or spike and venting needle into human normal immunoglobulin 10% vial(s). Fill the administration pump tubing and set aside until the recombinant human hyaluronidase has been administered.</li> </ul> </li> <li>• If more than one vial is required for a full dose, spike subsequent vials after the first vial has been fully administered.</li> </ul>	 <p>The diagram illustrates two methods of transferring immunoglobulin. Part (a) shows a hand holding a vial and a syringe, with a red arrow indicating the transfer of liquid into the syringe. Part (b) shows a vial with a spike inserted into it, and a red arrow indicating the liquid being drawn into an infusion bag.</p>
<p><b>9. Prepare the pump:</b> Follow the manufacturer’s instructions for preparing the pump.</p>	
<p><b>10. Prepare the infusion site:</b></p> <ul style="list-style-type: none"> <li>• Choose an infusion site(s) in either the middle to upper abdomen or thigh. See image for infusion site locations. <ul style="list-style-type: none"> <li>○ Select sites on the opposite sides of the body if instructed to infuse in two sites for doses above 600 mL.</li> <li>○ If using three sites, the sites should be 10 cm apart.</li> </ul> </li> <li>• Avoid bony areas, visible blood vessels, scars and any areas of inflammation or infection.</li> <li>• Rotate infusion sites by choosing opposite sides of the body between future infusions.</li> <li>• If instructed by your health care professional, clean the infusion site(s) with an alcohol swab. Allow to dry (at least 30 seconds).</li> </ul>	 <p>The illustration shows a person's abdomen with a hand pointing to the middle to upper abdomen area, indicating the recommended infusion site.</p>
<p><b>11. Insert the needle:</b></p> <ul style="list-style-type: none"> <li>• Remove the needle cover. Firmly grasp and pinch at least 2 to 2.5 cm of skin between two fingers.</li> <li>• Insert needle completely to the wings of the needle with a rapid motion straight into the skin at a 90-degree angle. Wings of needle should lay flat on the skin.</li> <li>• Secure needle in place with sterile tape.</li> <li>• Repeat this step if you have a second or third infusion site.</li> </ul>	<p>90-degree angle to skin</p>  <p>The illustration shows a hand holding a needle and inserting it into the skin at a 90-degree angle. The needle wings are shown lying flat on the skin.</p>

<p><b>12. Check for proper needle placement before starting the infusion if instructed by your healthcare professional.</b></p>	
<p><b>13. Secure the needle to the skin:</b></p> <ul style="list-style-type: none"> <li>Secure the needle(s) in place by putting a sterile clear bandage over the needle.</li> <li>Check infusion site(s) occasionally throughout the infusion for dislodgement or leaking.</li> </ul>	
<p><b>14. Administer the recombinant human hyaluronidase infusion first:</b> Divide the contents equally between all sites, if more than one site is used.</p> <p><b>If using the push method to deliver HY:</b></p> <ul style="list-style-type: none"> <li>Slowly push the plunger of the smaller syringe with the recombinant human hyaluronidase at an initial rate per infusion site to approximately 1 to 2 mL per minute and increase as tolerated.</li> </ul> <p><b>If using the pump method to deliver HY:</b></p> <ul style="list-style-type: none"> <li>If using a pump, prepare the pump to infuse the recombinant human hyaluronidase at an initial rate per infusion site of 60 to 120 mL/hour/site and increase as tolerated.</li> </ul>	
<p><b>15. Administer the human normal immunoglobulin 10%:</b> After infusing all of the content of the smaller syringe (recombinant human hyaluronidase), remove the syringe from the hub of the needle set/pump tubing. Attach the pump tubing to the IG container/vial or, the larger syringe containing human normal immunoglobulin 10% to the needle set. Administer the human normal immunoglobulin 10% with a pump at the rates prescribed by your healthcare professional and start the infusion.</p>	
<p><b>16. Flush the pump tubing when the infusion is complete if instructed by your healthcare professional:</b></p> <ul style="list-style-type: none"> <li>If instructed by your healthcare professional, attach a sodium chloride solution bag to the pump tubing/needle set to push the human normal immunoglobulin 10% up to the needle wings.</li> </ul>	
<p><b>17. Remove needle set:</b></p> <ul style="list-style-type: none"> <li>Remove the needle set by loosening the dressing on all edges.</li> <li>Pull the needle wings straight up and out.</li> <li>Gently press a small piece of gauze over the needle site and cover with a protective dressing.</li> <li>Throw away the needle(s) into the sharps container. <ul style="list-style-type: none"> <li>Dispose of the sharp's container using instructions provided with the container or contact your healthcare professional.</li> </ul> </li> </ul>	

<p><b>18. Record the infusion:</b></p> <ul style="list-style-type: none"> <li>• Remove the peel-off label from HyQvia vial, which has the product lot number and expiry date and place the label in your treatment record/logbook.</li> <li>• Write down the date, time, dose, site(s) of infusion (to assist in rotating sites) and any reactions after each infusion.</li> <li>• Throw away any unused product in the vial and the disposable supplies as recommended by your healthcare professional.</li> <li>• Follow up with physician as directed.</li> </ul>	
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#### 4. Possible side effects

Like all medicines, this medicine can have side effects, although not everybody gets them. Certain side effects, such as headache, chills, or body aches, may be reduced by slowing the infusion rate.

##### Serious side effects

Infusions of medicines like HyQvia can occasionally result in serious, but rare, allergic reactions. You may experience a sudden fall in blood pressure and, in isolated cases, anaphylactic shock. Doctors are aware of these possible side effects and will monitor you during and after the initial infusions. Typical signs or symptoms include: feeling light-headed, dizzy or faint, skin rash and itchiness, swelling in the mouth or throat, difficulty breathing, wheezing, abnormal heart rate, chest pain, blueness of lips or fingers and toes, blurred vision.

- Tell your doctor or nurse immediately if you notice any of these signs during the infusion.
- When using HyQvia at home, you must perform the infusion in the presence of an assigned guardian person who will help you watch out for allergic reactions, stop the infusion, and get help if necessary.
- Please also see section 2 of this leaflet about the risk of allergic reactions and using HyQvia at home.

##### Very common side effects (may affect more than 1 in 10 infusions):

Local reactions at infusion site (includes all of the infusion site reactions listed below). These reactions usually go away within a few days.

##### Common side effects (may affect up to 1 in 10 infusions):

- headache
- feeling sick (nausea)
- abdominal pain / abdominal tenderness
- redness of the skin (erythema)
- Reactions at infusion site including pain, discomfort, tenderness, redness, swelling, and itching
- Feeling hot, fever
- weakness (asthenia), tiredness (fatigue), lack of energy (lethargy) and feeling generally unwell (malaise)

##### Uncommon side effects (may affect up to 1 in 100 infusions):

- dizziness
- migraine
- sensations like numbness, tingling, pins and needles (paraesthesia)
- shaking (tremor)

- rapid heartbeat (tachycardia)
- high blood pressure (hypertension)
- stomach swelling (abdominal distension)
- diarrhoea
- vomiting
- rash
- itching (pruritus)
- itchy rash (urticaria)
- muscle pain (myalgia)
- joint pain (arthralgia)
- back pain
- pain in extremity (including limb discomfort)
- musculoskeletal chest pain
- joint stiffness
- infusion-site reactions (such as discoloration, bruising, redness (haematoma), bleeding (haemorrhage), blood vessel puncture, mass (nodule), induration, swelling (Oedema), chills, burning sensation, rash).
- genital swelling

Rare side effects (may affect up to 1 in 1 000 infusions):

- stroke
- low blood pressure (hypotension)
- difficulty breathing (dyspnoea)
- groin pain
- brown urine (haemosiderinuria)
- excessive sweating (hyperhidrosis)
- infusion site inflammation
- infusion site warmth
- sensations like numbness, tingling, pins and needles at infusion site (infusion site paraesthesia)
- positive result of coombs test

Frequency not known (cannot be estimated from the available data):

- inflammation of the membranes that surround the brain and spinal cord (meningitis aseptic)
- allergic reactions (hypersensitivity)
- infusion site leakage
- influenza like illness (flu like illness)

### **Reporting of side effects**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via [the national reporting system](#) listed in [Appendix V](#). By reporting side effects, you can help provide more information on the safety of this medicine.

### **5. How to store HyQvia**

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 and carton after EXP. The expiry date refers to the last day of that month.

Store in a refrigerator (2°C - 8°C). Do not freeze.

Do not shake.

Keep the vials in the outer carton in order to protect them from light.

Do not use this medicine if the solutions are cloudy or have particles or deposits.

After opening, dispose of any unused solutions in the vials.

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

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

### **What HyQvia contains**

HyQvia is a dual vial unit containing:

- a solution of recombinant human hyaluronidase (Step 1 of HyQvia/Infuse first) and
- a solution of human normal immunoglobulin 10% (Step 2 of HyQvia/Infuse second).

The contents of each vial are described below:

#### **1. Recombinant human hyaluronidase**

This vial contains recombinant human hyaluronidase.

The other ingredients are sodium chloride, sodium phosphate, human albumin, ethylenediaminetetraacetic acid (EDTA) disodium, calcium chloride and water for injections (see also section 2, “**HyQvia contains sodium**”).

#### **2. Human normal immunoglobulin 10%**

One mL of the solution in this vial contains 100 mg of human normal immunoglobulin, of which at least 98% is immunoglobulin G (IgG).

The active substance of HyQvia is human normal immunoglobulin. This medicine contains trace amounts of immunoglobulin A (IgA) (not more than 140 micrograms/mL, 37 micrograms on average).

The other ingredients of this vial are glycine and water for injections.

### **What HyQvia looks like and contents of the pack**

HyQvia 100 mg/mL solution for infusion for subcutaneous use (infused under the skin)

HyQvia is supplied as a pack containing:

- one glass vial of recombinant human hyaluronidase, and
- one glass vial of human normal immunoglobulin 10%.

The recombinant human hyaluronidase is a clear and colourless solution.

The human normal immunoglobulin 10% is a clear and colourless or pale-yellow solution.



The following pack sizes are available:

<b>Recombinant human hyaluronidase</b>	<b>Human normal immunoglobulin 10%</b>	
<b>Volume (mL)</b>	<b>Protein (g)</b>	<b>Volume (mL)</b>
1.25	2.5	25
2.5	5	50
5	10	100
10	20	200
15	30	300

Not all pack sizes may be marketed.

### **Marketing Authorisation Holder and Manufacturer**

#### Marketing Authorisation Holder:

Baxalta Innovations GmbH  
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A-1221 Vienna  
Austria

#### Manufacturer:

Baxalta Belgium Manufacturing SA  
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**This leaflet was last revised in**

**Other sources of information**

Detailed information on this medicine is available on the European Medicines Agency web site:

<http://www.ema.europa.eu>