Biotherapies for Life™ **CSL Behring**

Privigen® – IVIg therapy made simple

- Privigen® is licensed for room temperature storage for 3 years[1,2]
- Privigen® is well tolerated up to maximum recommended infusion rates[2,3,9*]
- Privigen® is ready to use and fast to infuse[1†]
- Privigen® is licensed for patients with CIDP[1**]

privigen®

* Increased Privigen infusion rates were not associated with an increase in the proportion of temporally associated AE's
**Only limited experience is available for use of intravenous immunoglobulins in children with CIDP.
† Compared with 5% IVIgs, ITP, GBS and CIDP patients can be infused up to the maximum rate of 4.8 ml/kg bw/hr. PID patients can be infused up to the maximum rate of 7.2 ml/kg bw/hr

ABBREVIATED PRESCRIBING INFORMATION

Please refer to the Summary of Product Characteristics (SmPC) before prescribing
Privigen® (human normal immunoglobulin) 100mg/ml solution for intravenous infusion. Maximum IgA content is 25 mcg/mL.

Indications: Replacement therapy in adults, children and adolescents (0-18 years) in primary immunodeficiency syndromes (PID) with impaired antibody production; hypogammaglobulinaemia and recurrent bacterial infections in patients with chronic lymphocytic leukaemia (CLL) when prophylactic antibiotics have failed, or in plateau phase multiple myeloma patients who have failed to respond to pneumococcal immunisation; hypogammaglobulinaemia in patients after allogeneic haematopoietic stem cell transplantation; congenital AIDS with recurrent bacterial infections. Immunomodulation in adults, children and adolescents (0-18 years) in primary immune thrombocytopenia (ITP), in patients at high risk of bleeding or prior to surgery to correct the platelet count; Guillain-Barré syndrome (GBS); Kawasaki Disease; chronic inflammatory demyelinating polyneuropathy (CIDP) **Dosage and administration:** In replacement therapy the dose may need to be individualised for each patient dependent on the pharmacokinetic and clinical response. For further details refer to the SmPC. Replacement therapy in PID: dose regimen should achieve trough IgG level at least 5-6g/l. Starting dose is 0.4-0.8g/kg b.w. followed by at least 0.2g/kg b.w. every 3-4 weeks. Hypogammaglobulinaemia and recurrent bacterial infections in patients with CLL when prophylactic antibiotics have failed or in plateau phase multiple myeloma patients who have failed to respond to pneumococcal immunisation; congenital AIDS with recurrent bacterial infections: dose 0.2-0.4g/kg b.w. every 3-4 weeks. Hypogammaglobulinaemia in patients after allogeneic haematopoietic stem cell transplantation: recommended dose 0.2-0.4 g/kg b.w. every 3-4 weeks. Maintain trough levels above 5 g/l. ITP: two alternative treatment schedules:0.8-1 g/kg b.w. on day 1, can repeat once within 3 days, or 0.4 g/kg b.w. daily for 2 -5 days. GBS: 0.4 g/kg b.w./day for 5 days. Kawasaki Disease: 1.6-2.0g/kg b.w. in divided doses over 2 -5 days or 2.0g/kg as a single dose. Patients should receive concomitant treatment with acetylsalicylic acid. CIDP: starting dose of 2g/kg b.w. in divided doses over 2-5 days followed by maintenance dose of 1g/kg b.w. over 1-2 days every 3 weeks. An initial infusion rate of 0.3ml/kg b.w./hr for approximately 30 min. It may be gradually increased to 4.8ml/kg b.w./hr if well tolerated. Maximum recommended infusion rate in PID is 7.2ml/kg b.w./hr. Privigen may be diluted with 5% glucose solution to final concentration of 50mg/ml (5%). **Contraindications:** Hypersensitivity to the active substance or to any of the excipients. Hypersensitivity to human immunoglobulins, especially in patients with antibodies against IgA. Patients with hyperprolinaemia. **Special warnings & precautions:** Certain severe adverse reactions may be related to high infusion rate, patients with hypogammaglobulinaemia or agammaglobulinaemia, with or without IgA deficiency, patients who receive IVIg for the first time, have switched therapy or have not received IVIg for a long period. IVIg is not indicated in patients with selective IgA deficiency where the IgA deficiency is the only abnormality of concern. Isolated cases of haemolysis-related renal dysfunction/renal failure or disseminated intravascular coagulation and death have occurred. Risk factors associated with haemolysis: igh dose; non-O blood group and underlying inflammatory state. Monitor for symptoms of haemolysis. Aseptic meningitis syndrome has been reported to occur in association with IVIg treatment and may occur more frequently with high dose (2g/kg). In post marketing reports IVIg high dose indications in children, particularly with Kawasaki disease, are associated with an increased reporting rate of haemolytic reactions compared to other IVIg indications in children. Caution should be exercised in obese patients and those with pre-existing risk factors for thrombotic events. In patients at risk for thromboembolic adverse reactions, IVIg products should be administered at the minimum rate of infusion and dose practicable. Cases of acute renal failure have been reported in patients receiving IVIg therapy. In case of adverse reaction, either the rate of administration must be reduced or the infusion stopped. Transfusion-related acute lung injury (TRALI) may very rarely occur following treatment with IVIg products. Monitor patients for pulmonary adverse reactions. Immunoglobulin administration may impair the efficacy of live attenuated virus vaccines and may result in transient misleading positive results in serological testing. **Pregnancy and lactation:** Use with caution in pregnant women and breast-feeding mothers. Virus safety: Despite standard measures to prevent infections resulting from the use of medicinal products prepared from human blood or plasma, the possibility of transmitting infective agents cannot be totally excluded. The measures are considered effective for enveloped viruses such as HIV, HBV and HCV, and for the non-enveloped viruses, HAV and parvovirus B19. **Side effects:** Chills, headache, dizziness, fever, vomiting, allergic reactions, nausea, arthralgia, fatigue, low blood pressure and moderate low back pain may occur. Rarely, a sudden fall in blood pressure and, in isolated cases, anaphylactic shock may be experienced. Cases of reversible aseptic meningitis, reversible haemolytic anaemia/haemolysis, transient cutaneous reactions, increase in serum creatinine level and/or acute renal failure have been observed with IVIg products. Very rarely, transfusion-related acute lung injury and thromboembolic events have been reported.. **Marketing Authorisation Holder :** CSL Behring GMbH, Emil-von-Behring-Strasse 76, D 35041 Marburg, Germany **Marketing Authorisation numbers:** 25ml (2.5g): EU/1/08/446/004; 50ml (5g): EU/1/08/446/001; 100ml (10g): EU/1/08/446/002; 200ml (20g): EU/1/08/446/003

For a copy of the SmPC or further medical information, please contact medical@dccvital.com

Adverse events should be reported to Fannin Ltd, Pharmacovigilance at +353 868394447 or medical@dccvital.com

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. Health care professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace,IRL-Dublin2; Tel: +35316764971; Fax:+35316762517. Website:www.hpra.ie;Email:medsafety@hpra.ie

Legal Category: POM. **Date text last revised:** January 2017

IE17/2/SmPC-May 2016

References: 1. Privigen Summary of Product Characteristics. CSL Behring, May 2016 2. Bolli R, Woodtli K, Bärtschi M, et al. L-Proline reduces dimer content and enhances the stability of intravenous immunoglobulin (IVIG) solutions. Biologicals 2010;38(1): 150–73 3. Stein MR, Nelson RP, Church JA, et al. Safety and efficacy of Privigen, a novel 10% liquid immunoglobulin preparation for intravenous use, in patients with primary immunodeficiency. J Clin Immunol 2009;29(1):167–44 4. Octagam (10%) Summary of Product Characteristics. Octapharma, March 2016 5. Kiovig Summary of Product Characteristics. Baxter, Sept 2015 6. Flebogamma DIF (100mg/ml). Summary of Product Characteristics. Instituto Grifols, S.A., Dec 2015 7.Gamunex Summary of Product Characteristics. Instituto Grifols S.A., July 2014 8. Intratect (100g/l) Summary of Product Characteristics. Biotest, Feb 2016 9. Sleasman JW, Duff CM,Dunaway T, et al. Tolerability of a new 10% liquid immunoglobulin for intravenous use, Privigen, at different infusion rates. J Clin Immunol 2010;30(3):442–8

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CSL Behring
Biotherapies for Life™

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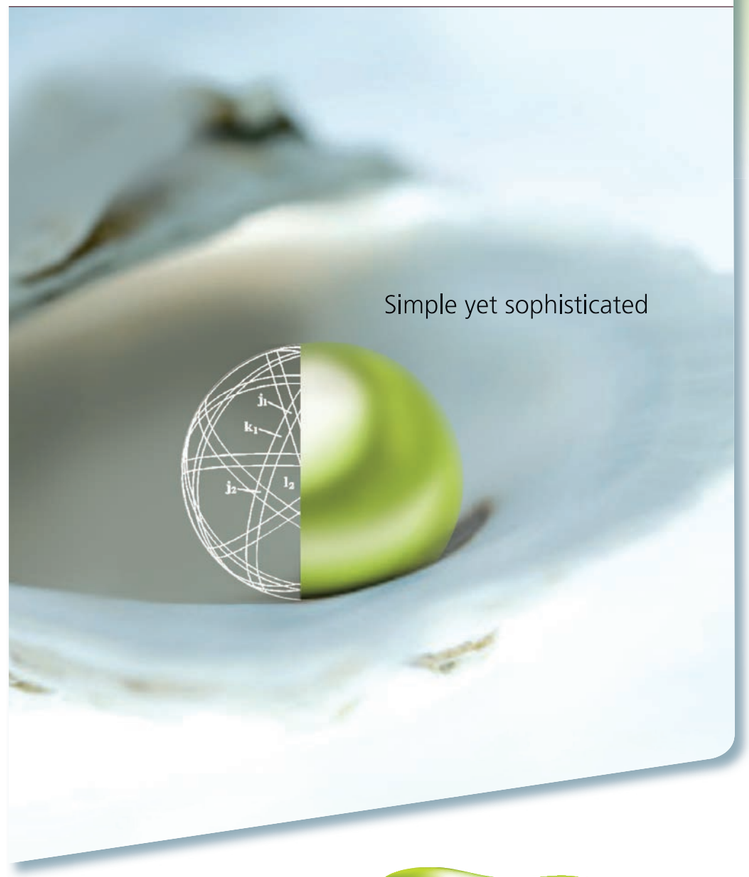
Biotherapies for Life™ **CSL Behring**



Abbreviated Prescribing information can be found on the back page.

privigen®
Human Normal Immunoglobulin
100 mg/ml solution for infusion

Privigen® – the only IVIg stabilised with L-proline

Effect on tolerability[2]

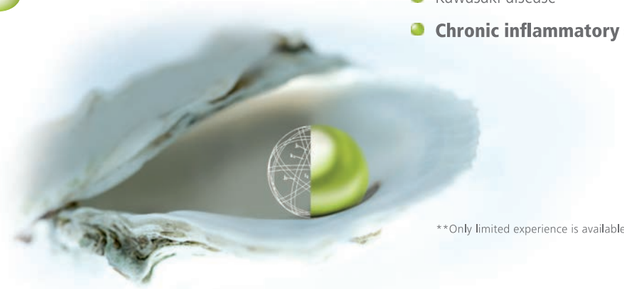
- Dimers present in IVIg infusions can trigger inflammatory reactions
- Limiting dimers can have a positive effect on tolerability
- Privigen has up to 30% lower dimer content than glycine-stabilised formulations

Stability benefits[1,2]*

- L-proline stabilisation at pH 4.8 minimises IgG denaturation, degradation and aggregation
- Allows room temperature storage for up to 3 years

Simple administration[1]

- Rapid infusion†
- Ready for immediate use
- No need to refrigerate



*Compared to glycine-stabilised formulations

† ITP, GBS and CIDP patients can be infused up to the maximum rate of 4.8 ml/kg bw/hr. PID patients can be infused up to the maximum rate of 7.2 ml/kg bw/hr. Infusion time for a 70 kg ITP, GBS and CIDP patient receiving a dose of 0.4 g/kg at the maximum infusion rate is 50 minutes. Infusion time for a 70 kg PID patient receiving a dose of 0.4 g/kg at the maximum infusion rate is 33 minutes.

Indications[1]

Replacement therapy in:

- Primary immunodeficiency (PID)
- Hypogammaglobulinaemia and recurrent bacterial infections in patients with chronic lymphocytic leukaemia, in whom prophylactic antibiotics have failed Hypogammaglobulinaemia and recurrent bacterial infections in plateau phase multiple myeloma patients who have failed to respond to pneumococcal immunisation
- Hypogammaglobulinaemia in patients after allogeneic haematopoietic stem cell transplantation (HSCT)
- Congenital AIDS with recurrent bacterial infections

Immunomodulation in:

- Primary immune thrombocytopenia (ITP)
- Guillain-Barré syndrome (GBS)
- Kawasaki disease
- **Chronic inflammatory demyelinating polyneuropathy (CIDP)****

**Only limited experience is available for use of intravenous immunoglobulins in children with CIDP.

No IVIg has a longer shelf life at room temperature[1, 4-8]

SmPC comparison of Privigen® with 10% IVIg products*

IVIg	Privigen®[1]	Octagam®[4]	Kiovig®[5]	Flebogamma DIF®[6]	Gamunex®[7]	Intratect®[8]
Concentration(%)	10	10	10	10	10	10
Purely proline-stabilised	Yes	No	No	No	No	No
IgA (mg/ml)	0.025	≤0.4	0.14	0.1	0.059 (mean)	1.8
Licensed shelf life (years)	3	2	2	2	3	3
Room temperature storage for full shelf life	Yes	No	Yes	Yes	No	Yes

*Based on SmPC information and not a direct comparison. No clinical implications can be drawn from the comparison chart The registered trade marks and brand names Octagam (Octapharma), Kiovig (Baxter), Flebogamma DIF, Gamunex (Instituto Grifols) and Intratect (Biotest) mentioned herein are the property of their respective owners

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