

FOR IMMEDIATE RELEASE

FDA Approves Octaplas[®] Expanding Octapharma U.S. Transfusion Medicine Therapies

Solvent/Detergent Treated Human Plasma Designed to Reduce the Risk of Pathogen Transmission and Immunologic Reactions

HOBOKEN, N.J. January 22, 2013 – [Octapharma USA](#) today announced that the [U.S. Food and Drug Administration \(FDA\)](#) has approved [Octaplas[®]](#), its solvent/detergent treated pooled human plasma. [Octaplas[®]](#) is indicated for the management of preoperative or bleeding patients who require replacement of multiple plasma coagulation factors and for patients with coagulation deficiencies due to hepatic disease or who are undergoing cardiac surgery or liver transplantation.¹

The FDA also approved the product for transfusion or plasma exchange in patients with congenital¹ or acquired thrombotic thrombocytopenic purpura (TTP), a rare blood disorder with an incidence of 3.8 per million.² Both acquired and congenital forms of TTP are associated with a severe deficiency of an enzyme required to regulate the activity of a large protein, which can contribute to widespread clot formation in small blood vessels throughout the body, in particular the heart, brain, and kidneys.^{2,3}

Solvent/detergent treatment is a well-recognized method for reduction of highly infectious enveloped viruses.⁴ [Octaplas[®]](#) is designed to improve viral safety, avoid transfusion-related acute lung injury and non-hemolytic allergic reactions, and provide standardized levels of coagulation factors equivalent to single donor fresh frozen plasma.⁴

Pooling human plasma from multiple donors of the same, specific, blood group (ABO) mitigates the single donor variabilities in essential coagulation factors and immune neutralizing antibodies.⁵

Solvent/detergent treatment inactivates enveloped viruses by irreversibly disrupting their lipid coats, thereby reducing the risk of infectivity. As a consequence of plasma pooling, both dilutional effects and the presence of standardized levels of neutralizing antibodies effectively minimize the risk of transmitting enveloped viruses such as Herpes simplex virus-1 and non-enveloped viruses such as Hepatitis A virus (HAV), Hepatitis E virus (HEV), and Parvovirus B 19.⁵

“Plasma pooling, cell filtration and solvent/detergent treatment may neutralize antibodies against white blood cell antigens and reduce bioactive lipids, known to mediate the development of transfusion related acute lung injury (TRALI),^{6,7} a severe yet underreported cause of transfusion associated morbidity and mortality,”⁸ said [Anitha Vijayan, M.D.](#), Director of the Acute Dialysis Unit and Associate Professor of Medicine at the Washington University School of Medicine in St. Louis.

“Over more than 20 years, there have been more than 8 million units of [Octaplas[®]](#) transfused internationally, in more than 2.6 million patients,” according to Octapharma USA President [Flemming Nielsen](#). “We look forward to bringing Octaplas[®] to the U.S. medical community.

There have been no reports of [Octaplas[®]](#) being associated with TRALI in voluntarily reported adverse events data from all countries where Octaplas[®] is approved.⁹ The incidence of TRALI from plasma transfusion is not well documented, but has been reduced with the introduction of male-only donors in recent years.¹⁰ However, cases are still reported annually through global adverse event reporting systems.”¹¹

Octapharma submitted its Biological License Application (BLA) for Octaplas[®] to the FDA in December 2011. For Octaplas[®] full prescribing information, please visit www.octaplasus.com.

About Octaplas[®]

Contraindications & Adverse Events

[Octaplas[®]](#) is contraindicated in patients with IgA deficiency; severe deficiency of Protein S; history of hypersensitivity to fresh frozen plasma (FFP) or to plasma-derived products including any plasma protein; or a history of hypersensitivity reaction to Octaplas[®].

Serious adverse reactions seen in clinical trials were anaphylactic shock, citrate toxicity and severe hypotension. The most common adverse reactions observed in $\geq 1\%$ of patients included pruritis, urticaria, nausea, headache, paresthesia.

Warnings and Precautions

- Transfusion reactions can occur with ABO blood group mismatches.
- High infusion rates can induce hypervolemia with consequent pulmonary edema or cardiac failure.
- Excessive bleedings due to hyperfibrinolysis can occur due to low levels of alpha2-antiplasmin.
- Thrombosis can occur due to low levels of Protein S.
- Citrate toxicity can occur with volumes exceeding one milliliter of Octaplas[®] per kg per minute.
- [Octaplas[®]](#) is made from human plasma; therefore, may carry the risk of transmitting infectious agents, e.g., viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent and theoretically, the Creutzfeldt-Jakob disease (CJD) agent.

About the Octapharma Group

Headquartered in Lachen, Switzerland, Octapharma AG is one of the world's largest human protein products manufacturers and has been committed to patient care and medical innovation for nearly 30 years. With a broad and expanding pipeline, Octapharma's core business is the development, production, and sale of high quality human protein therapies from both human plasma and human cell-lines, including intravenous immune globulin and von Willebrand Factor/Coagulation Factor VIII Complex. Octapharma employs over 4,000 people and has biopharmaceutical experience in 80 countries worldwide, including the United States, where Octapharma USA is located in Hoboken, New Jersey. Octapharma operates two state-of-the-art production sites licensed by the U.S. Food and Drug Administration (FDA), providing a high level of production flexibility. For more information, please visit www.octapharma.com, www.octaplasus.com, or www.wilateusa.com.

References

1. Octaplas. Annotated prescribing information (1.14.1.2). Octapharma. Hoboken, New Jersey, USA.
2. Edel E, Al-Ali HK, Seeger S. Efficacy and Safety Profile of Solvent/Detergent Plasma in the Treatment of Acute Thrombotic Thrombocytopenic Purpura: A Single-Center Experience. *Transfus Med Hemother* 2010;37:13–19.
3. Tsai H-M. Pathophysiology of thrombotic thrombocytopenic purpura. *Int J Hematol*. 2010; 91:1-19.
4. World Health Organization. Technical Report, Series No. 924, 2004. *Guidelines on Viral Inactivation and Removal Procedures Intended to Assure the Viral Safety of Human Blood Plasma Products*. Geneva, Switzerland, 2004.
5. U.S. Department of Health and Human Services. Food and Drug Administration. Blood Products Advisory Committee. Pooled Plasma (Human), Solvent/Detergent Treated (Octaplas™). BLA 125416/0. Rockville, Maryland. September, 2012.
6. Horowitz B, Bonomo R, Prince AM, et al. Solvent-detergent treated plasma: a virus-inactivated substitute for fresh frozen plasma. *Blood*. 1992;79:826-831.
7. Hellstern P, Solheim B. The Use of Solvent/Detergent Treatment in Pathogen Reduction of Plasma. *Transfus Med Hemother*. 2011;38:65–70.
8. Zah T, Mesaric J, Majeric-Kogler V. Transfusion related acute lung injury (TRALI). *Signa Vitae*. 2009;4:8-11.
9. Svae T-E, Heger A, Biesert L. Production of plasma proteins for therapeutic use. Chapter 23. In Bertolini J, Goss N, Curling J (Eds.). *Production of Plasma Proteins for Therapeutic Use*. Wiley. Hoboken, New Jersey. 2012.
10. Eder AF, Dy BA, OPerez JM, et al. The residual risk of transfusion-related acute lung injury at the American Red Cross (2008-2011): limitations of a predominantly male-donor plasma mitigation strategy. *Transfusion*. 2012 Nov 1. [E-published ahead of print]
11. Hemovigilance: An Effective Tool for Improving Transfusion Safety De Vries RRP, Faber J-C (Eds.). *Part 5: Preparation of Blood Components Section 5: Results and Achievements*. Wiley-Blackwell. John Wiley & Sons, LTD. Hoboken, New Jersey. 2012

Forward-looking Statements

This news release contains forward-looking statements, which include known and unknown risks, uncertainties, and other factors not under the company's control. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future

events or developments. These factors include results of current or pending research and development activities and action by the FDA or other regulatory authorities.

MEDIA CONTACT:

Fred Feiner
Yankee Public Relations
(908) 425-4878
fred@yankeepr.com