Octaplasma®

This is a unit of Octaplasma®, a pooled human plasma product treated with a solvent detergent (S/D) pathogen-inactivation method. Octaplasma® is manufactured by Octapharma and wholesaled by Canadian Blood Services. As part of Canadian Blood Services' transition to a pathogen-reduced blood component inventory, Octaplasma is more easily available. Octaplasma® will be substituted for frozen plasma (untreated) as determined by your hospital's Transfusion Medicine Service.

S/D treated plasma offers advantages:

- Inactivation of enveloped viruses (e.g., HIV, HBV, HCV)
- Immune neutralization of non-enveloped viruses (e.g., HAV and parvovirus B19)
- Multiple, dedicated filtration steps to remove blood cells, debris, and pathogens.
- Removal of prions
- Standardised content of all proteins and factors in each unit of plasma

As a result of the processes listed above, literature suggests Octaplasma® may have the following benefits:

- Reduced risk of allergic transfusion reactions[1-4]
- Reduced risk of transfusion-related acute lung injury[5]

Some important points about Octaplasma® compared with frozen plasma (untreated) components:

1. The bags look different. The Octaplasma® bag is smaller and the plastic is thicker.
2. The labels are slightly different. "Octaplasma" is indicated on the label and the unit number starts with "X" rather than "C".
3. Each unit of Octaplasma® has the same volume (200 mL)[6], which is lower than units of frozen plasma (untreated) components. The volume of frozen plasma (untreated) varies from unit-to-unit. Octaplasma® should be dosed according to volume and not number of units.

Octaplasma® can be used interchangeably with frozen plasma (untreated) components and is transfused in the same way. This component offers similar therapeutic benefits to frozen plasma (untreated), with pathogen reduction decreasing the risk of certain infections.

More information can be found in the **Octaplasma product monograph** and the **FAQ: Solvent detergent (S/D) treated plasma (Octaplasma)** on profedu.ca.

References

1. McGonigle AM, Patel EU, Waters KM, et al. Solvent detergent treated pooled plasma and reduction of allergic transfusion reactions. Transfusion **60**, 54-61 (2020).
2. Saadah NH, Schipperus MR, Wiersum-Osselton JC, et al. Transition from fresh frozen plasma to solvent/detergent plasma in the Netherlands: comparing clinical use and transfusion reaction risks. Haematologica **105**, 1158-1165 (2020).
3. Cushing MM, Pagano M., Jacobson J, et al. Pathogen reduced plasma products: a clinical practice scientific review from the AABB. Transfusion **59**, 2974-2988 (2019).
4. Krusius T, Auvinen MK, and Tuimala J. Introduction of Octaplas in clinical use decreased the rate of serious adverse reactions. Vox Sanguinis**. 99s1: P-1018** (2010)
5. Klanderman RB, van Mourik N, Eggermont D, et al. Incidence of transfusion-related acute lung injury temporally associated with solvent/detergent plasma use in the ICU: A retrospective before and after implementation study. Transfusion **62**, 1752-1762 (2022).
6. Octapharma Canada. Product monograph, Octaplasma. (Octapharma Canada, Toronto, ON, 2022).