

**Guideline 9****Administration of Plasma Protein Products (*derivatives*)****Purpose**

- 9.0** To provide best practice guidelines for nurses that align with the standards set forth by the American Association of Blood Banks (AABB), Accreditation Canada (AC) Transfusion Services, Canadian Standards Association (CSA) and the Canadian Society of Transfusion Medicine (CSTM) for the administration of Plasma Protein Products (PPP's), previously known as derivatives.

**Examples of PPP's** include, but are not limited to: Albumin, Anti-inhibitor Coagulant, ATIII, C1 Inhibitor, Factors VII-XIII, Recombinant Factors, Fibrinogen, Immune Globulins, Protein C, and Prothrombin Complex Concentrates

- 9.1** The standards state that a protocol/policy is required for the administration of plasma protein products (PPP's). This includes the use of infusion devices and ancillary equipment, and the identification, evaluation, and reporting of adverse events related to the transfusion.

**Refer to Guideline 7** [Transfusion Reactions - Identification, Management, and Reporting](#)

**Policy**

- 9.2** Health care facilities/RHAs in Manitoba must implement processed and procedures that include informed consent, physician orders, administration and documentation as well as reporting of adverse events associated with these products.
- 9.3** Ensure direct venous access for administration.

The transfusionist will ensure informed consent for any blood, blood components and/or plasma protein products have been obtained by the physician/authorized practitioner before administering any product.

- 9.4** The transfusionist and one other authorized provider will verify the following:

**9.4.1** The order which includes

- ✓ Intended recipient's two independent identifiers: Unique identifier and first & last name
- ✓ PPP and dosage required
- ✓ Date and Time of the transfusion
- ✓ Rate or duration of the transfusion
- ✓ Modification or special requirement to product if applicable
- ✓ If multiple products to be infused, indicate the sequence, and clinical indication for transfusion

**9.4.2** Donation identification number/product lot number.**9.4.3** The product end date has not expired.**9.4.4** Positively identify the recipient and match the PPP to recipient.

**Refer to Guideline 3** [Patient Identification in Blood, Blood Components and or Plasma Protein Products](#)

**9.5** Inspect the product for leakage, discoloration, and/or abnormalities. If product fails visual inspection contact the blood bank immediately.

**Refer to Appendix 6** [Visual Inspection](#).

**9.6** Explain the procedure to the patient and to report signs/symptoms of adverse reaction(s) immediately.**9.7** Assess the patient for symptoms prior to the infusion that might be confused with transfusion reaction and document same (i.e. fever, rash).

Information regarding the administration set, infusion rate and common side effects can be found in the individual Blood Product Monographs

See [Blood Monographs](#)

**9.8** Administration sets should be changed:

- ✓ After maximum 4 hours,
- ✓ More than 30 minutes have elapsed between units
- ✓ Between different products, or
- ✓ Administration set becomes occluded.

**9.9** Medications must not be added directly to PPP's or to the administration set during infusion.

- 9.10 Transfusion of plasma protein products should be administered according to the product monograph recommended rate.

**Practice Scenario:** Many PPP's are ordered to be given IV push over a matter of minutes.

**For example:** Prothrombin Complex Concentrates (PCC) are administered at 1mL/min for first 5 mins followed by a maximum rate for the remainder of the infusion which varies between products. (Octaplex = 3mL/min, Beriplex 8mL/min). The maximum infusion time for PCC is approximately 40 minutes (3000 IU = 120 mL).

**Example:** If you have orders for Beriplex 1000IU (total Volume 40 mL), the max infusion time would be 9 minutes at 1mL/min for the first 5 mins and then a maximum rate of 8mL/min.

- 9.11 Patient must be monitored throughout the infusion for adverse reactions. Post infusion monitoring is at the discretion of the person qualified or the transfusionist administering the infusion.
- 9.12 Information regarding potential post infusion adverse effects must be provided to the patient prior to being discharged.

**Refer to Appendix 13** [Patient resources, "A Blood Transfusion Reaction; what you should know" patient information sheet.](#)

## Documentation

- 9.13 Documentation in the patients' health record should include the following:

**Refer to Appendix 7** [Cumulative Blood Product Completion Guide:](#)

- ✓ Order from physician/authorized provider
- ✓ Informed consent
- ✓ Name of product
- ✓ Donation/lot number and sequence number
- ✓ Vital signs
- ✓ Amount infused
- ✓ Rate of infusion
- ✓ Two authorized provider signatures verifying two person check
- ✓ Response to infusion
- ✓ Any education provided related to infusion

**Quality Control**

- 9.14** Health care facilities and RHA's in Manitoba should implement a quality improvement system to monitor compliance with the policies for the administration of plasma protein products.
- 9.15** A competency program shall be established for all personnel involved in the transfusion process.

**Notes/Special Considerations**

- 9.16** Only approved infusion devices and ancillary equipment that meet provincial safety standards and are approved by Health Canada shall be used for transfusion.

**Outpatient settings:**

- 9.17** Patient should be monitored for adverse reactions until the infusion is completed. Post transfusion monitoring is at the discretion of the person administering the infusion.
- 9.18** Information regarding potential post infusion adverse effects must be provided to the patient prior to being discharged.

**Refer to Appendix 13 [Sample patient information on receiving transfusion.](#)**