
 <p>DIAGNOSTIC SERVICES MANITOBA</p> <p>SERVICES DIAGNOSTIC MANITOBA</p>	Cryoprecipitate		Document # 160-65-04
			Version # 02
	Approved by:  Dr. C. Musuka	Effective Date: 27-OCT-2016	Source Document: Blood Product Administration Guidelines from Manufactures Monographs

Other Names	<ul style="list-style-type: none"> CRYO, cryoprecipitate CPD (CPD – citrate phosphate dextrose anticoagulant)
Description	Cryoprecipitate (CRYO) is prepared from slowly thawed CP2D FFP that has been centrifuged to separate the insoluble cryoprecipitate from the plasma. The insoluble cryoprecipitate is refrozen. Volume of each unit is approximately 5-15 ml and contains greater than 150 mg/unit of fibrinogen 75% of the time.
Special Approvals/authorizations	<ul style="list-style-type: none"> An independent 2 person check is required for all doses, as per Canadian Blood Services. ABO and Rh is not considered for CRYO administration, unless it is a pediatric patient. Product is stored frozen and as a result requires prep time prior to issuing. Cryo is not available at all blood banks, please confirm with blood bank prior to ordering.
Classification	<ul style="list-style-type: none"> Human blood components, derived from plasma components
Indications	<ul style="list-style-type: none"> Documented cases of low fibrinogen (less than 1.0 g/L) or when the clinical status of the patient is highly suggestive of a low fibrinogen level, and the urgency of the situation does not allow time to wait for fibrinogen level results.
Contraindications	<ul style="list-style-type: none"> Should not be used for fibrin glue or for replacement of Factor VIII in hemophiliac patients.
Supplied	<ul style="list-style-type: none"> Canadian Blood Services Supplied as single units with volumes of 5 - 15 mL of product that will require pooling to make a dose Note: <ul style="list-style-type: none"> The donor sample is tested for ABO group, Rh type and unexpected antibodies against red cell antigens. ABO group is indicated on the component label. Rh type may also be indicated on the label. The intended recipient must be properly identified before the transfusion is started.
Dosage	<ul style="list-style-type: none"> The volume needed to raise fibrinogen concentration 0.5 - 1.0 g/L can be estimated as one unit of cryoprecipitate per 5 - 10 kg body weight. <ul style="list-style-type: none"> ADULTS: 5 - 10 units (possibly more if fibrinolytic therapy) PEDIATRICS: 1 - 2 units /10 kg to a maximum of 6 units.
Stability	<ul style="list-style-type: none"> Once thawed CRYO is stored at 20° to 24°C and transfused within 4 hours. Within 30 minutes of arrival on unit, transfusion must commence, or return blood component to Blood Bank.
Reconstitution	<ul style="list-style-type: none"> When pooling, add 50 mL of normal saline to one bag of CRYO and flush each bag with the cumulative amount in the preceding bag. PEDIATRIC NOTE: <ul style="list-style-type: none"> Pool CRYO with 5 - 15 mL of 0.9% normal saline.
Compatibilities/Incompatibilities	<p>Compatible Solutions:</p> <p><i>Only isotonic, calcium-free intravenous solutions may be added to, or come in contact with blood products. Calcium will bind with the citrate anticoagulant and promote clotting in the tubing. Excess glucose and/or dextrose cause hemolysis and shorten red cell survival. The following solutions are acceptable:</i></p> <ul style="list-style-type: none"> 0.9% NaCl (normal saline) is the fluid of choice. MEDICATIONS MUST NOT BE ADDED TO BLOOD PRODUCTS. If it is necessary to administer medications simultaneously with blood, it is safest to use an alternate site for the drug.
Administration, Identification and ABO Compatibility	<p>Refer to Manitoba Best Practice Guidelines</p> <ul style="list-style-type: none"> Section 2.2 Standards - Identification and Administration Section 1.4 for ABO Compatibility
Administration, Method	<p>Administration Set:</p> <ul style="list-style-type: none"> Administer through a standard blood transfusion set with a filter to remove gross fibrin clots and aggregates: <ul style="list-style-type: none"> ADULTS: 170 - 260 micron filter PEDIATRICS: 80 to 260 micron filter Set should be changed:

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	<ul style="list-style-type: none"> ○ A maximum of every 4 hours, or ○ More than 30 minutes has elapsed between transfusion/infusion, or ○ Administering a different component, or ○ The set has become occluded. <ul style="list-style-type: none"> ● Normal saline should be used to prime the administration set in the adult patient. <p>Infusion Rate:</p> <ul style="list-style-type: none"> ● Rate is specified by the ordering physician or authorized prescriber. ● The initial rate of infusion should be slow (less than 1 mL/minute) for the first 15 minutes of the infusion, unless urgent replacement is required. If the patient exhibits no signs of reaction and is tolerating the transfusion, the rate may be increased as per the physician order. ● The recommended infusion time is over 10-30 minutes per dose. <p>NOTE:</p> <ul style="list-style-type: none"> ○ When administering CRYO, each bag should be rinsed with a small amount of normal saline to ensure the entire volume of product is infused. ○ Normal saline should be run following the transfusion to ensure all of the product remaining in the line is transfused. ○ Presentation: How to Pool Cryoprecipitate http://bestbloodmanitoba.ca/wp-content/uploads/2014/03/How-To-Pool-Cryoprecipitate-Presentation.pdf
Adverse Events	Refer to Manitoba Best Practice Guidelines section 2.7 for transfusion reactions.
Resources:	<ul style="list-style-type: none"> ● Manitoba Transfusion Medicine Best Practice Resource Manual for Nursing ● http://www.transfusionmedicine.ca/resources/clinical-guide-transfusion ● Canadian Blood Services Guide to Transfusion (www.blood.ca) ● AABB Transfusion Therapy Clinical Principles and Practice (reference) ● Bloody Easy 3 ● Mosby Nursing Skills – Blood Transfusion (http://mns.elsevierperformancemanager.com/NursingSkills/ContentPlayer/SkillContentPlayerIFrame.aspx?KeyId=201&Id=EN_074&Section=1&bcp=SearchOp~0~transfusion~False&IsConnect=False)