Cryoprecipitate

TRANSFUSION MEDICINE SERVICES

OTHER NAMES	CLASSIFICATION	ALERTS
Cryo	Blood Component	HIGH ALERT SUBSTANCE VERIFICATION REQUIRED BY 2 HCP

PREPARATION and ADMINISTRATION

Prepared from Human Blood.
Ensure consent is signed and blood matches prescribed order.
If patient is a neonate, ensure ABO Type is compatible with patient.

Cryoprecipitate is stored frozen and requires 30 -60 minutes to prepare for use.

Primary Infusion

IV Bag (large volume pump)

Ready-to-use bag "unit" - exact amount is located on the unit label and Transfusion Medicine (TM) tag Diluent: none

Adults: 60-120mL/hr for initial 15 min then increase to ordered rate
Pediatrics: When appropriate, initiate at half the ordered rate for first 15 minutes. Increase rate if tolerating well
Transfuse as rapidly as clinically tolerated and as specified by Authorized Prescriber
Maximum rate: 1500 mL/h

Complete infusion within 4 hours of **time of issue** found on the TM tag, or the time removed from a transport cooler

Syringe (syringe pump)

For instuctions on portioning (aliquot) units for syringe pumps, see Transfusing via Syringe Pumps Diluent: none

Adults: 60 mL/h for initial 15 min then increase to ordered rate
Pediatrics: When appropriate, initiate at half the ordered rate for first 15 minutes. Increase rate if tolerating well

Complete infusion within 4 hours of **time of issue** found on TM tag or time removed from transport cooler

Requirements and Monitoring

Administration: Infusion device, IV tubing with standard (170-260micron) blood filter *"Dual spike blood tubing"*

Do not over-spike the blood units. Insert with one quarter turn, clockwise twists. Do not pull, or twist in both directions while spiking or un-spiking.

Discard tubing after 4 units or 4 hours; if more than one hour has elapsed between transfusions; in accordance with the manufacturer's insert, and/or if tubing becomes occluded, contamination is suspected, or integrity compromised

Keep unopened back up of NS with standard IV tubing nearby for prompt response if an adverse event (AE) presents.

Baseline vitals within 60 minutes before starting infusion. Reassess 15 minutes after starting infusion under direct observation, Q1h (minimum), when infusion is complete and 20 minutes to 1h post completion. Q4hx24hours for inpatients. **Document all vitals taken**.

Blood pressure via cuff or arterial line
Temperature
Heart Rate
Respirations
Lung sounds in non-verbal, non-oriented or pediatric patients and patients with CHF or pulmonary dysfunction

Assess patient for risk factors of TACO: Cardiac or renal dysfunction; older age; positive fluid balance; signs of cardio/pulmonary strain

OTHER NAMES	CLASSIFICATION	ALERTS
Cryo	Blood Component	HIGH ALERT SUBSTANCE VERIFICATION REQUIRED BY 2 HCP

INDICATIONS

- See DOSAGE for indications.

ADVERSE EFFECTS

NEW onset of any of the following:

Hypertension/Hypotension	Significant change in cardiac rate/rhythm
Tachypnea/bradypnea/dyspnea	Severe headache
Fever/chills/rigors	Back/chest/flank pain
Puritis/urticaria/rash	Anuria/hematuria/oliguria
Bleeding/pain at IV site	Nausea/vomiting
Patient feels unwell	Unexplained anxiety

If an AE is suspected: stop the transfusion, disconnect and cap the blood tubing, intiate the backup line of NS and consult the authorized perscriber (AP) for medical management. Notify the TM lab of a suspected reaction.

- Review the component label, TM tag and patient ID to rule out a verification (clerical) error and that the expiry date and time have not passed.
- Resume transfusion cautiously as directed by AP. Directly observe patient x5min then closely observe x10min.
- Ensure TM tag, along with a copy of the documented clinical data and interventions are sent to TM lab once transfusion is discontinued or completed.
- If the transfusion must be discontinued and a transfusion reaction workup is ordered, send the additional following items to TM lab:
  i. Blood work (1 Red top and 1 EDTA (Pink or Lavender top)
  *possible exception for pediatric patient: lab testing to be performed at discretion of Hematopathologist
  ii. Component and administration set (ensure set is safely capped)

Note: AP may also require additional testing such as: blood cultures, chest x-ray, EKG, or urine specimen

DOSAGE

Indication	Specific Criteria	Recommendation
Congenital fibrinogen deficiency	– Bleeding or the risk of bleeding AND fibrinogen concentrate is NOT available – Fibrinogen level less than 1.5 g/L	Consultation with the Bleeding Disorder Clinic is suggested. Adult: 902-473-5612 (after hours – contact the haematologist on call 902-473-2222) Pediatric: 902-470-8752 (after hours – contact the haematologist on call 902-470-8888)

OTHER NAMES	CLASSIFICATION	ALERTS
Cryo	Blood Component	HIGH ALERT SUBSTANCE VERIFICATION REQUIRED BY 2 HCP

Acquired hypofibrinogenemia	– Bleeding – Fibrinogen levels less than 1.5g/L Note: Fibrinogen concentrate is an approved alternative for cryo in this situation	In bleeding Adults: 10 units will provide 1.2–1.8 g of fibrinogen. One unit of cryoprecipitate per 10 kg body weight will raise the plasma fibrinogen by approximately 0.5 g/L Pediatric dosing: 1 unit per 10 kg body weight or 6 units/m²
Acquired hypofibrinogenemia with DIC	– Bleeding – Fibrinogen levels less than 1.5 g/L – If fibrinogen levels are greater than 1.5 g/L in the setting of active bleeding secondary to DIC, consider FP instead of cryoprecipitate to address the multiple factor deficiencies typical of DIC Note: Fibrinogen concentrate is an approved alternative for cryo in this situation	In bleeding Adults: 10 units will provide 1.2–1.8 g of fibrinogen. One unit of cryoprecipitate per 10 kg body weight will raise the plasma fibrinogen by approximately 0.5 g/L Pediatric dosing: 1 unit per 10 kg body weight or 6 units/m²
Acquired hypofibrinogenemia in postpartum hemorrhage	– Bleeding – Consider fibrinogen replacement when the fibrinogen level is greater than or equal to than 2 g/L – Require fibrinogen replacement when the fibrinogen level is less than 2 g/L	
Specific factor deficiencies: – von Willebrand (vWD) disease – Hemophilia A (HA) – Factor XIII deficiency	Cryoprecipitate is not the first choice for treatment and should ONLY be considered if the specific factor product is NOT available AND bleeding or requiring an invasive procedure	Consultation with the Bleeding Disorder Clinic is suggested Adult: 902-473-5612 (after hours – contact the hematologist on call 902-473-2222) Pediatric: 902-470-8752 (after hours – contact the haematologist on call 902-470-8888)

COMPATIBILITY, STABILITY

- Compatible with NS only

  NOTE: Solutions, other than NS, intended for intravenous use may be used in an administration set with plasma if they have been approved by Health Canada for this use under applicable requirements; or there is documentation available to show that addition of the solution is safe.

- Only viable for four (4) hours from the **time of issue** found on TM tag or time removed from transport cooler
- Do not store unused units in refrigerator or in opened transport cooler. Return to TM

Cryoprecipitate

TRANSFUSION MEDICINE SERVICES

OTHER NAMES	CLASSIFICATION	ALERTS
Cryo	Blood Component	HIGH ALERT SUBSTANCE VERIFICATION REQUIRED BY 2 HCP

DOSAGE FORMS

- 1 bag (unit); See Unit label or TM tag for exact amount
- Peditactric/neonate doses may be aliquoted into smaller volumes, based on ordered amount

MISCELLANEOUS

- Ensure patient receives a blue transfusion notificard card once per calendar year.
- Verification outside of hospital settings will include the Transfusionist and a capable adult.

LIBRARIES

- Searchable Drug Library Document

REFERENCES

- CL-BP-001 Blood Component Utilization in Adults and Pediatrics
- CL-BP-030, IWK-625 Blood Component and Blood Product Administration - Policy and Procedure
- http://www.cdha.nshealth.ca/nova-scotia-provincial-blood-coordinating-program-7
- Canadian Blood Services Circular of Information (2022), found at https://www.blood.ca/sites/default/files/IM-00004_Revision_1.pdf