

CANADIAN ANIMAL BLOOD BANK

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 www.rrc.mb.ca/abb

Frozen Plasma

Frozen Plasma (Cryosupernatant)

Frozen Plasma is made from 450 ml of whole blood collected in the anticoagulant Citrate Phosphate Dextrose Adenine (CPDA-1). Plasma is removed within 5 days of the expiration date of the whole blood and frozen. Frozen Plasma (Cryosupernatant) is the by-product of cryoprecipitate production and has minimal fibrinogen. Shelf life is two (2) years from collection when stored frozen.

Product Numbers

P01	(Full size)	Minimum volume of 190 ml
P02	(Half size)	Minimum volume of 60 ml

Indications for use

- Treatment of bleeding associated with deficiencies of stable clotting factors I, V, VII, X, XII
- Severe burns
- DIC (disseminated intravascular coagulation)
- Rodenticide poisoning (e.g. Warfarin)
- Passive immunity (e.g. parvovirus, orphaned neonates)
- Thrombocytopenic purpura
- α -macroglobulins replacement – See reverse for further information
- Protein replacement – See reverse for further information

Dosage / Rate of Infusion Guideline

6-10 ml/kg body weight at a rate of 4-6 ml/minute over no longer than a 4 hour period. Infuse as quickly as the patient can tolerate.

Preparation

- Check expiration date
- **DO NOT USE A MICROWAVE TO THAW THE UNIT!**
- Enclose unit in a zipper-style plastic bag and thaw in a water bath at 37°C or less for 30-40 minutes. Mix regularly to speed thawing.
- Inspect the unit for leaks or cracks
- Open one port and insert spike from filter set

Precautions

- **WARNING** – overdose may cause circulatory overload
- Do not use it past the expiration date
- Do no re-freeze an unopened thawed unit. Unopened thawed unit may be stored in the fridge for 35 days.
- Always use a filter set
- Discard any unused portion to biohazardous waste
- Never run or mix IV medications, colloids, Ringer's lactate with the plasma, even if they are in different limbs. These products are not compatible with blood products and will cause clotting. The IV line must be flushed with saline following the infusion of the blood product

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Reactions

- *Anaphylactic, anaphylactoid:* Characterized by urticaria, pruritis, erythema, edema, emesis, dyspnea, hypertension, bronchoconstriction, and sever shock. Can be mild or life threatening. Onset is rapid, occurring 1-45 minutes from the start of the transfusion.
- *Circulatory overload:* Characterized by cough, tachypnea, pulmonary edema, congestive heart failure, vomiting, and urticaria. Can be mild or life threatening and is most common in small animals. Patients with underlying cardiac disease are at most risk.

Further Information

Hypoproteinemia / Hypoalbuminemia

Infusing Frozen Plasma is not an efficient way of replacing protein when dealing with hypoproteinemia or hypoalbuminemia. It takes approximately 45 ml plasma / kg body weight to increase albumin by 10 gm/L. Although the plasma will assist in dealing with hypoproteinemia and hypoalbuminemia, circulatory overload becomes an issue. Therefore, combining plasma therapy with the use of colloids to assist with oncotic pressure is the usual recommendation. Various factors including albumin levels and state of hydration are likely to determine the amount of plasma versus other colloids used.

Pancreatitis

Frozen Plasma is an excellent tool for managing pancreatitis by replacing α -macroglobulins. Circulating proteases released by the inflamed pancreas will bind with the α -macroglobulins. The body clears these complexes. If the binding capacity of the α -macroglobulins is exceeded, the inflammatory and fibrinolytic cascades may be activated.

Other Uses

If plasma therapy is required, Frozen Plasma (cryosupernatant) is recommended in cases where excess clotting is a risk factor and with disorders commonly associated with DIC. This product provides the natural anticoagulant ATIII (anti-thrombin III) *without* providing fibrinogen or other factors that may potentially worsen a fulminant DIC.