Cryoprecipitate is prepared from Fresh Frozen Plasma to concentrate Factor VIII and von Willebrand's Factor. This product is most appropriate for treating patients with Hemophilia A or von Willebrand's disease because large amounts of the necessary clotting factors can be provided while reducing the risk of volume overload in these patients.

Cryosupernatant is the product that remains when Fresh Frozen Plasma is processed to make cryoprecipitate. It contains plasma proteins and all of the other clotting factors (including II, VII, IX, and X). It can be used for many of the same indications as FFP except for Hemophilia A and von Willebrand's disease. It is particularly useful for coagulopathies such as warfarin poisoning and Hemophilia B (Factor IX deficiency).

Frozen Plasma (FP) is created by separating the blood cells and platelets from plasma and freezing the resulting plasma. Unlike Fresh Frozen Plasma, Frozen Plasma is not processed immediately, and so contains little or no Factor VIII. FP is not appropriate for patients with Hemophilia A (Factor VIII deficiency) or von Willebrand's Disease.

Questions? Call Sun States for customer support 24/7/365!

Call (954) 630-2231

***Sun States* provides blood typing services, including STAT DEA 1.1 Typing On-Site!**

STORAGE GUIDELINES FOR BLOOD PRODUCTS

Whole Blood and **PRBC's** should be stored at 3-6° C. **They should be gently agitated daily** to keep the cells suspended in the preservative solution**. Shelf life for these products depends upon the preservative:** 35 days (5 weeks) for products preserved in CPDA-1, and 42 days (6 weeks) for products preserved in Optisol® or Adsol®.

FFP, Frozen Plasma, Cryoprecipitate and Cryosupernatant should be kept frozen at -20° C or colder. **Cryoprecipitate and Cryosupernatant should NOT be stored in "Frost-Free" or "Self-Defrosting" freezers**, as the defrost cycles degrade the labile clotting factors (e.g., factor VIII) significantly. The shelf life on these products is 1 year.

"It's A Dog's Life!"

Sun States: Blood Bank for Animals

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Blood Products Uses in Canines

Sun States: Blood Bank for Animals

"It's A Dog's Life!"

Information for Veterinarians

Sun States: Blood Bank for Animals *has prepared this brochure to outline the various blood products available for veterinary use.*

Whole Blood transfusion is only indicated for severe, acute bleeding. **If your patient needs both plasma and cells, Sun States can provide you with cells and FFP from the same donor.**

Packed Red Blood Cells (PRBC's) are created by separating the blood cells from the plasma by centrifugation. The red cells are supplied in a small amount of plasma to keep them in a liquid suspension. PRBC's are an ideal product when a patient is suffering from any form of anemia, or to improve oxygen-carrying capacity during or after vigorous fluid resuscitation.

Fresh Frozen Plasma (FFP) is created by separating the blood cells and platelets from plasma and freezing the resulting plasma immediately. The FFP contains blood proteins and all clotting factors (including Factor VIII). FFP is an appropriate component to treat patients who may be suffering from a variety of coagulopathies (including consumptive coagulopathies such as DIC) or for patients in need of colloid replacement.

Platelet Concentrates separate blood cells and plasma from platelets. Platelet concentrates are useful in treating consumptive coagulopathies such as autoimmune thrombocytopenia. **Please call Sun States for more information.**

Look inside for dosing and administration instructions!

Pre-Transfusion Treatment

Diphenhydramine (Benadryl®): 1 mg/lb.

Dosage Guidelines

PRBCs: Packed red blood cells are dosed based using the following formula:

$$mL = \frac{WT \times 70 \times (PCV_{desired} - PCV_{patient})}{PCV_{prbcs}}$$

mL = mL to transfuse
WT = weight of patient (kg)
$PCV_{desired}$ = Target PCV
$PCV_{patient}$ = Patient's current PCV
PCV_{prbcs} = PCV of PRBCs

The PCV of the PRBCs can be measured directly, or assume PCV=60% (for Optisol / Adsol) or PCV=80% (for CPDA-1) as supplied by Sun States. If you are rehydrating with saline, add 150 mL 0.9% NS and assume PCV=50%.

USE ONLY 0.9% NORMAL SALINE TO REHYDRATE PRBCs. Dextrose or Lactated Ringer's solutions will cause hemolysis of PRBCs.

FFP, Plasma, Cryosupernatant: 6-12 mL/kg. Severe deficits of immunoglobulin may require up to 20 mL/kg/dose over 2-4 hours.

Cryoprecipitate: 1-2 mL/kg. Severe coagulopathies may require up to 5 mL/kg/dose over 1 hour. In severe bleeding episodes repeat administration every 12 hours as needed to maintain hemostasis.

Sun States recommends the use of filtered blood administration sets for all blood products. Sets are available for purchase from **Sun States**.

Following are a list of common conditions followed by blood products that can be used to treat the indication:

1. **First Choice**
2. **Second Choice**

Anemia

1. Packed Red Blood Cells
2. Whole Blood

Donors and recipients should be DEA 1.1 typed and red cells should be cross-matched prior to transfusion.

Sepsis
Warfarin / Coumadin Poisoning
Parvovirus Infection
Factor VII Deficiency
Factor X Deficiency
Hemophilia B (Factor IX Deficiency)
Hemophilia C (Factor XI Deficiency)

1. Plasma
2. Fresh Frozen Plasma

Choose FFP if there is severe GI bleeding.

Hypoproteinemia

1. Intravenous colloid
2. Plasma

DIC
Von Willebrand's
Hemophilia A (Factor VIII Deficiency)
Disfibrinogenemia
Hypofibrinogenemia
Prothrombin Deficiency

1. Cryoprecipitate
2. Fresh Frozen Plasma