



# Laboratory Service Manual

**Test Name:** CRYOPRECIPITATE TRANSFUSION

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## **General Information**

**Lab Order Codes:** TCRY

**Synonyms:** Antihemophilic Factor (AHF); Antihemophilic Globulin (AHG); Cryo

**CPT Codes:** P9012 – Cryoprecipitate, each unit

**Test Includes:** Cryoprecipitate is a component prepared by thawing a unit of fresh frozen plasma at 4°C and then recovering the cold-precipitated factor VIII protein by centrifugation. The usual unit contains an average of 80 units of factor VIII and at least 150 mg of fibrinogen in about 15 mL of plasma.

Jumbo cryoprecipitate is produced as a byproduct from cryo-poor plasma collected by cytapheeresis from a single donor. One unit of jumbo cryoprecipitate equals at least 3 standard units of cryoprecipitate in its composition of factor VIII and fibrinogen.

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## **Logistics**

**Test Indications:** See [Guidelines for the Transfusion of Blood Components](#).

Treatment of congenital and acquired deficiency of fibrinogen, hemophilia A, von Willebrand's disease, and factor XIII. Small amounts of cryoprecipitate are also used to prepare "fibrin glue", to aid in surgical hemostasis. Cryoprecipitate contains a significant quantity of fibrinogen and may be used for treatment of hypofibrinogenemia under certain circumstances. Cryoprecipitate rather than antihemophilic concentrate should be given for treatment of von Willebrand's disease or for classical hemophilia when the need for treatment occurs only occasionally. Also, DDAVP® should be considered for treatment of von Willebrand's disease and mild hemophilia. Cryoprecipitate is different than factor VIII concentrate. Factor VIII concentrate is a lyophilized product with much high factor VIII activity than cryoprecipitate. Cryoprecipitate may be used for temporary treatment of bleeding tendency in uremia.

**Lab Testing Sections:** Transfusion Service

### **Phone Numbers:**

Minneapolis: 612-813-6824

Saint Paul: 651-220-6558

**Test Availability:** Daily, 24 hours



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<b>Standard Dose/Volume:</b>	1 unit cryoprecipitate per 5 kg body weight  <1 kg = 15 mL/kg
<b>Rate of Infusion:</b>	1 – 2 mL per minute (1 unit of cryo is approximately 18 mL)
<b>Administration:</b>	Must be administered through a blood component administration filter. Volumes ≤3 units may be issued by the Transfusion Service in a prefiltered syringe.
<b>Crossmatch:</b>	Should be ABO compatible. Rh need not be considered. Crossmatch is not required.
<b>Irradiation:</b>	Not required
<b>Order Instructions:</b>	Indicate the number of units needed; time and date needed; and indication for transfusion.
<b>Expiration:</b>	Expiration date: 6 hours after thawing, 4 hours after pooling or syringing

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## ***Specimen***

<b>Specimen Type:</b>	Refer to <a href="#">ABO/Rh</a> if patient testing is required.
<b>Patient Preparation:</b>	The patient must have a Medical Records band for checking against the component Unit Tag prior to administration.
<b>Sample Rejection:</b>	Requests may be questioned if coagulation studies are normal.

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## ***Interpretive***

<b>Limitations:</b>	Cryoprecipitate should be ABO compatible with the patient's red cells.
<b>Methodology:</b>	Frozen at -18°C or lower, Cryoprecipitate has a shelf life of 1 year. Thawed at 37°C with agitation in a waterbath, using a plastic overwrap. Thawing requires 10-20 minutes depending on the number of units being thawed. Once thawed, store at room temperature. Transfuse within 6 hours of thawing or 4 hours of pooling or syringing.



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coagulation defect for which cryoprecipitate is appropriate.

**Risks include:**

-- Disease transmission (Hepatitis B, C and HIV)

-- If a large volume of ABO incompatible cryoprecipitate is used, the patient may develop a positive direct antiglobulin (Coombs) test, mild hemolysis or inhibitors to Factor VIII.

**References:**

[Circular of Information of the Use of human Blood and Blood Components](#) (2002), AABB and American Red Cross, America's Blood Center