HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Departmental Policy and Procedure		
Title:	CRYOPRECIPITATE preparation and storage		
Applies To:	All Blood Bank Staff		
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1. PURPOSE:

1.1 The objective of this policy is to provide guidance to Blood Bank staff working in the blood component separation section to prepare cryoprecipitate on demand

2. DEFINITONS:

2.1 Anti-hemophilic Factor (AHF) or Coagulation Factor VIII can be concentrated from freshly collected plasma by cryoprecipitate
2.2 Cryoprecipitation -is accomplished by slow thawing of Fresh Frozen Plasma (FFP) at 1 to 6℃
2.3 Cryoprecipitate is a cold-insoluble portion harvested from Fresh Frozen Plasma. It is concentration of fibrinogen, factor VIII, and von Willebrand factor (vWF)

3. POLICY:

3.1 It is the policy of the Blood Bank to provide all required blood products when needed.
3.2 The sterility of the component shall be maintained during processing by use of aseptic methods, equipment, and material that allows the transfer of components without breakage of the seal.
3.3 The refrigerated centrifuge machines shall be calibrated to obtain maximum yield of centrifugation of FFP
3.4 Separation of cryoprecipitate shall be completed within one hour of taking the Thawed FFP from the refrigerator

4. PROCEDURE:

4.1 Principle of procedure
- 4.1.1 Cryoprecipitate is accomplished by slow thawing of Fresh Frozen Plasma at low temperature (1-6℃) and this precipitate serves as a rich source of Fibrinogen, factor VIII, and Von-Willebrand factor to treat the patients

4.2 Step of Procedure
- 4.2.1 At the end of the morning shift, take the out required amount (Batch of 12 for one spin) of FFP with a satellite bag prepared check the results of transmitted disease and NAT, and use units negative or non-reactive only.
- 4.2.2 Allow FFP bags to thaw at 1 to 6℃ by placing the bags in a 1 to 6℃ refrigerator overnight.
- 4.2.3 When the plasma has a slushy consistency, keep the plasma units in the buckets (specified plastic liners) and balance them by using a weighing balance. Adjust misbalance by adding pieces from empty discarded blood bags.
- 4.2.4 Keep the equally balanced buckets with bags diagonally opposite in the refrigerated centrifuge ensuring that the position of the bags in buckets is parallel to the direction of the spin.
- 4.2.5 After centrifugation, gently remove the bags from the buckets and place them on the expre in an upright position. Approximately one-tenth of the contents should be still frozen. The cryoprecipitate paste will adhere to the sides of the bag or to the ice.

4.2.6 Remove temporary clamps between tubes connecting the satellite bag and express the supernatant plasma into the satellite bag allowing the supernatant plasma to flow slowly into the transfer bag, using the ice crystals at the top as a filter. Leave 15-20 ml of plasma in Cryoprecipitate bag

4.2.7 Detach Products from each other after electric sealing

4.2.8 Enter the steps of the prepation process in the hematos system (for more details refer to SOPs of blood bank)

4.2.9 Label the bags with the ABO of the donor, negative TTD-NAT, expiry date as FFP.

4.2.10 Refreeze immediately Cryoprecipitate bags in a -30 freezer labeled ready to use

4.2.10.1 Cryoprecipitate Keep the Bag freely scattered for quick freezing.

4.2.10.2 Record Cryoprecipitate in the Blood Component registration book and enter all the units

4.2.10.3 After freezing the bags, arrange them properly in a designated Freezer for ready-to-use Cryoprecipitate below -30o or colder For 12 months From The Donation Date.

4.3 Transportation of cryoprecipitate: if we bring it from outside facility the cryoprecipitate should be transported in properly insulated container and to keep the temperature near to -18 by proper Colling of container by using a lot of ice to keep it in frozen state, Thawed CRYO units are stored and transported at room temperature (between 20 and 24o C

5. MATERIALS AND EQUIPMENT:

5.1 Fresh frozen plasma FFP (more than 200ml), prepared from freshly collected Whole Blood in integrally attached bags- quadruple bags and kept frozen below -18°C. Refrigerator 1-6℃

5.2 Refrigerated centrifuge Machine

5.3 Plastic clips

5.4 Instruments (scissors, hemostats)

5.5 Dielectric seale.

5.6 Weighing balance

5.7 Plasma extractor

5.8 Deep freezer -18 to -65℃)

5.9 Plastic Liners for holding blood bags

5.10 55Blood separation registration book and hematos system of blood bank

6. RESPONSIBILITIES:

6.1 All Blood Bank Staff

6.2 Blood Bank Supervisor

6.3 Blood Bank Physician

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 The Unified Practical Procedure Manual For Blood Banks In The Arab Countries, 1434-2013.

8.2 The Standard Policy For Blood Banks In The Kingdom Of Saudi Arabia, 1st edition, 1435-2014.

8.3 National Standards For Clinical laboratories and Blood Banks, 1st edition, 2015.

8.4 Effectiveness of confidential unit exclusion for screening blood donors. Rev Bras Hematol Hemoter, 2012, 1:33(5):328-36.

8.5 Effectiveness of confidential self-exclusion (CSE) and failed options on blood donation safety in Sari organization of blood transfusion, 2005. Casp.J Intern Med 2010; 1(1): 20-22.

8.6 Good Manufacturing Practice for Blood Establishments, Version 2.0, May 2019, Saudi FDA

9. APPROVALS:

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