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| Principle |
|  | To determine the appropriateness of requests for plasma and to thaw and label plasma in preparation for transfusion. |
| Scope and Related Policies |
|  | 2.1 | Refer to the Clinical Guide to Transfusion for the use of human blood and blood components for descriptions and criteria for the appropriate use of plasma products. 9.1 Refer requests that do not meet the criteria to a Medical Director or designate. See QCA.020 – Medical Director Consultation Protocol. |
|  | 2.2 | Types of frozen plasma products available include: |
|  |  | 2.2.1 | Frozen Plasma CPD (FP)  |
|  |  | 2.2.2 | Apheresis Fresh Frozen Plasma (FFPA). |
|  |  | 2.2.3 | Cryosupernatant plasma CPD(CSP) |
|  |  | 2.2.4 | Solvent Detergent (S/D) treated plasma |
|  | 2.3 | All blood components shall be inspected for abnormal appearance before use and the visual inspection must be documented. If an abnormality is detected, the unit shall not be issued and the blood supplier shall be notified regarding the final disposition of the product. Any such notifications shall be documented.9.2 |
|  | 2.4 | Refrigerators and freezers when used for storage of blood components or blood products shall have an audible temperature alarm with a backup power supply.9.2 Refrigerators and freezer alarm activation points shall be set at temperatures that allow for corrective action to be taken prior to the blood components and blood products reaching unacceptable temperatures. 9.2 |
|  | 2.5 | Plasma, should be ABO compatible with the recipient’s red cells.9.2  |
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| Specimens |
|  | Historical Blood Group:If a patient has been tested on at least two separate occasions, the ABO Group and Rh type may be taken from the Transfusion Medicine records (history), as per facility policy. If no record exists, or only one previous testing, a Group and Rh must be done. |
| Materials |
|  | **Equipment:** 37°C waterbath/circulating waterbath or automated thawing unit Timer (calibrated)**Supplies:** Plasma components Plastic bags for overwrap Component label  |
| Quality Control |
|  | 5.1 | Storage and shelf life of plasma components 9.1

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| Component | Shelf life when frozen | Shelf life when thawed |
| Frozen plasma CPD (FP) | 12 months at -18°C or colder | 5 days stored at 1-6°C |
| Fresh Frozen Plasma Apheresis (FFPA) | 12 months at -18°C or colder | 24 hours stored at 1-6°C |
| Cryosupernatant plasma CPD (CSP) | 12 months at -18°C or colder | 24 hours stored at 1-6°C |
| Solvent Detergent (S/D) treated plasma9.3 | 48 months at -18°C or colder | 8 hours stored at 1-6°C or 4 hours stored at 20-24°C |

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|  | 5.2 | The temperature of the waterbath used to thaw plasma must be checked and documented each time the waterbath is used.9.2 |
|  | 5.3 | The waterbath used for thawing plasma should be cleaned on a regular basis and whenever there is a risk of contamination (i.e., leaking of a blood product container). |
|  | 5.45.55.6 | Plasma is thawed in a plastic overwrap to prevent contamination of the ports 9.2.Waterbaths and other heating devices used to thaw blood products shall not be used for incubation of tests containing biological specimens.9.2Plasma must be thawed at a temperature of 30 to 37°C. or by use of an approved thawing device.9.2 |
| Procedure |
|  | Check the level of water in the waterbath/thawing device. If the water level is low, add warm water and allow the temperature to equilibrate to acceptable temperature.Automated devices could take up to 8-15 minutes. |
|  | Select the appropriate ABO group of plasma. See Table 2 in CSP.001 – Selection of Blood Components for Transfusion. |
|  | Remove plasma from freezer and carefully inspect for signs of cracking or breakage, especially around the ports at the top of the unit.  |
|  | Place each unit to be thawed in a plastic overwrap bag. See Procedural Notes 8.1.  |
|  | Compress the bag around the plasma to remove as much air as possible. Secure the top of the bag with a clamp or a hemostat if desired. |
|  | Read and record the temperature of the waterbath/thawing device on QCA.006F. The temperature must be 30°C to 37°C. If the temperature is not within this range, adjust the thermostat of the waterbath. Wait until the desired temperature range is reached or, if the temperature is too warm, add cool water until the temperature reaches 37°C. |
|  | Place the wrapped plasma into the waterbath/thawing device. Set a timer for 15 minutes.For automated thawing devices set a timer for 8-12 minutes (FP) or 12-15 minutes (FFPA).  |
|  | When the timer rings, knead plasma bag(s) gently to break up large frozen sections. Return the plasma bag(s) to the waterbath This step is not necessary for automated thawing devices. |
|  | Check the plasma every five minutes thereafter. Thawing time is usually 20-30 minutes but is dependent on the size and number of units being thawed at one time.For automated thawing devices check the plasma every 2 minutes thereafter or follow manufacturer’s recommendations. |
|  | Remove plasma bag(s) from the waterbath/thawing device when thawing is complete. Thawed product must not remain in waterbath/thawing device. |
|  | Inspect each unit for evidence of leaking and perform visual inspection. See IM.003 – Visual Inspection of Blood, Blood Components and Fractionated Products.  | If the container is not intact or does not meet visual inspection criteria, discard as per IM.005 – Final Disposition of Blood, Blood Component and Other Related Products Not Suitable for Transfusion Manual Procedure.  |
|  | Prepare the label for the thawed plasma bag with the following modified product information: 9.2* Product name (e.g., thawed plasma)
* Name of facility preparing component
* Unique numeric or alphanumeric identification of component. See Procedural Notes 8.3
* ABO of component
* Approximate volume of component
* Time of expiry of component

Label the thawed bag with the following recipient information:* Recipient’s family and given name(s)
* Recipient’s identification number(s)
* ABO group of recipient

See Procedural Notes 8.2 and attach a component label to each plasma bag. |
|  | Issue product. If there is no computer system used to issue blood components, write the patient and product information onto the Issue/Transfusion record. See Procedural Notes 8.3 and IM.004 – Manual Issuing of Blood, Blood Components and Other Related Products Using the Issue/Transfusion Record.  |
|  | Notify the patient care area that the product is available and if required notify transportation department. |
|  | Store at 1-6°C until issue. See Procedural Notes 8.4 and Quality Control 5.1. |
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| Reporting – N/A |
| Procedural Notes |
|  | 8.1 | Depending on the type of bag used for overwrap, double bagging may be desirable. Thin plastic bags are easily pierced by the edges of frozen units. |
|  | 8.2 | When labeling units, the following criteria should be met whenever possible:* Use only labels with adhesive approved for use on blood bags
* Do not use scotch tape, masking tape or other adhesives that are not approved
* Do not use felt pen on bag labels
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|  | 8.3 | Unit number must include the unit identification number, the check digit and the site identifier of the original unit(s). There must be a log or computer system capable of tracking the original unit numbers indefinitely. |
|  | 8.4 | Thawed plasma must never be refrozen. |
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| References |
|  | 9.1 | Clinical Guide to Transfusion (On-line edition at www.transfusionmedicine.ca) Chapter 2 (Updated March 2013 p.9-12 of 16 |
|  | 9.2 | CSTM Standards For Hospital Transfusion Services – Version 3 February 2011: 5.7.3.1, 3.2.2.2, 3.2.2.3, 5.4.3.1, 3.3.1.2, 5.5.3.2, 3.3.1.3, 5.5.3.1, 5.7.2.1,  |
|  | 9.3 | Canadian Blood Services Customer Letter #2012-31. Important information regarding the introduction of Octaplasma™ (solvent detergent (S/D) treated human plasma).; 2012-07-30. |
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# Revision History

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| **Revision Date** | **Summary of Revision** |
| September 1, 2014 | * Revised name of manual
* Added reference to QCA 020 to 2.1
* Removed FFP from 2.2 and added SD Plasma
* Removed 2.2.5 reference to Rh in plasma
* Removed 2.5,2.6,2.8 and 2.9
* Removed FFP and added SD plasma to 5.1
* Added 5.5 and 5.6
* Added /thawing device to references to waterbath in 6.0
* Removed 8.5 note on D immunization with plasma
* Updated all references to include the most recent version/edition and adjusted the page numbers cited as necessary. Added reference for SD plasma.
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