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| Principle | |
|  | To describe the acceptable selection of platelet components. Platelets come in 2 forms:   * Pool of 4 units of buffy coat derived platelets (pooled pre-storage) * Single donor collected by apheresis:   + May be HLA matched for patients with HLA alloimmunization and refractory to random donor platelets.   + Also the choice for children and neonates. |

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| 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 platelet 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 | | All blood products shall be inspected for abnormal appearance before use and the visual inspection must be documented. If an obvious abnormality is detected the unit must not be issued and the blood supplier shall be consulted regarding the final disposition of the product. Any such consultations must be documented.9.2 | | | |
|  | | 2.3 | | Discontinuation of agitation of platelets should not exceed 24 hours.9.2 | | | |
|  | | 2.4 | | Platelets should be ABO compatible with the recipient’s red cells.9.2 | | | |
|  | |  | | 2.4.1 | Concerns when choosing alternatives to ABO and Rh group specific platelets are: | | |
|  | |  | | |  | | The amount of Anti-A or Anti-B in the platelet pool may affect the patient's red cells if the patient is physically small and more than one dose of platelets is transfused. |
|  | |  | | |  | | Rh positive red cells in the platelet component may immunize an Rh negative patient |
|  | |  | | |  | | When group specific platelets are not available refer to the following table: |
|  | | 2.5 | | Irradiation of platelets is required for certain situations. For specific indications, see CSP.001 – Selection of Blood Components for Transfusion. | | | |
|  | | 2.6 | | Rh Immune Globulin (RhIG) administration should be considered whenever Rh positive platelets are transfused to an Rh negative recipient.9.2 | | | |
|  | |  | | 2.6.1 | | RhIG should be consideredfor all Rh negative female patients of child bearing potential who do not have an existing immune anti-D. At the discretion of the physician RhIG may be considered for any Rh negative patient who has not been previously immunized to the D antigen. | |
|  | |  | | 2.6.2 | | A Medical Chief or designate should be consulted to determine the amount of RhIG to issue.  If the patient has received multiple (more than 6) doses of Rh Positive platelets or if greater than 60 days has elapsed, the antibody screen should be performed with a new specimen. | |
|  | |  | |  | | **Note:** each platelet pool contains up to 0.5 mL of red cells. 120 ug of RhIG covers approximately 6 mL of red cells and lasts approximately 21 days.9.3 | |
| Specimens | | | | | | | |
|  | | **Historical Blood Group:** If a patient has been tested on at least 2 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, or in the absence of a facility policy, a Group and Rh must be done. | | | | | |
| Materials | | | | | | | |
|  | | **Equipment:** Platelet agitator/ Platelet incubator to maintain platelets at 20-  24°C if applicable    Supplies: Platelet Components | | | | | |
| Quality Control | | | | | | | | |
|  | 5.1 | | Storage and shelf life:   |  |  | | --- | --- | | **Component** | **Shelf Life**  **Closed System** | | Pooled Platelets LR CPD or  Apheresis Platelets | 20 - 24°C for 5 days from date of collection -under constant gentle agitation | | | | | | |
|  |  | | | | | | | |
|  | 5.2 | | | Before issuing, platelets should be inspected for evidence of discoloration or excessive platelet clumping. 9.2  Refer to the Canadian Blood Services Visual Assessment Guide. 9.4 | | | | | |
|  | 5.3 | | | A post-transfusion platelet count should be collected from the patient ten minutes to one hour after the completion of the transfusion.9.3 | | | | | |
|  |  | | | 5.3.1 | The expected response to transfusion depends on the number of platelets transfused, the size of the patient, and the condition of the patient. In general, each dose should raise an adult platelet count by 15-25 x 109/L when measured one hour after completion of the transfusion.9.3 | | | | |

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| Procedure | | | |
|  | * 1. Select appropriate ABO group and Rh of platelets from the platelet agitator or order from CBS. See Scope and Related Policies 2.4.   If platelets are coming from CBS, when received, pooled platelet or apheresis platelet should be placed on agitator/incubator until ready to issue. | | |
|  | * 1. Visually inspect pooled platelet or apheresis platelet. Refer to IM.003 – Visual Inspection of Blood, Blood Components and Fractionated Products. | | |
|  | * 1. Label Platelet Product: | | * + 1. Ensure that the label includes the following product information: 9.2 * recipient’s family and given name(s) * recipient’s identification number * ABO/Rh group of the recipient * ABO/Rh group of the pooled platelets/apheresis platelets * identification number of the platelets/apheresis platelets * product name (Platelets/Apheresis Platelets Pooled) * date and time of issue |
| * + 1. Attach the compatibility label/tag. See Procedural Note 8.1 |
|  | * 1. Place labeled platelet ready for issue on platelet agitator. | | |
|  | Notify the patient care area that the platelet component is available and if required notify transportation department. | | |
|  | * 1. 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 IM.004-Manual Issuing of Blood, Blood Components and Other Related Products Using the Issue/Transfusion Record. | | |
| Reporting – N/A | | | |
| Procedural Notes | | | |
|  | 8.1 | When labeling units, the following criteria should be met:   * Whenever possible, place the label onto the supplier label and not on the plastic blood bag directly * Only labels with approved adhesive must be used 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 | |  |
| References  |  |  | | --- | --- | |  | Clinical Guide to Transfusion (On-line edition at www.transfusionmedicine.ca) **Chapter 2** (Updated March 2013 P 5-6 of 16) | |  | Standards for Hospital Transfusion Services ver 3 February 2011. Canadian Society for Transfusion Medicine. 5.7.3.1, 5.6.1.8, 5.4.3.3, , 5.4.5.7, 5.7.31, 5.7.2.1, 5.7.2.3 | |  | Callum J et al. Bloody Easy 3 Blood Transfusions, Blood Alternatives and Transfusion Reactions: A guide to Transfusion Medicine 3rd edition. ORBCoN; 2011:p22-24. | |  | Canadian Blood Services Visual Assessment Guide T05 021 JANUARY 2009 p13-18 | | | | |

# Revision History

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| **Revision Date** | **Summary of Revision** |
| September 1, 2014 | * Revised name of manual * Removed reference to random donor platelets and pooling of platelets * Added refer to QCA 020 to 2.1 * Revised dose of RhIG in 2.6.2 * Updated all references to include the most recent version/edition and adjusted the page numbers cited as necessary |