TRAINING UPDATE

Lab Location:	SGAH and WAH	**Date Implemented:**	03.06.2015
Department:	Blood Bank	**Due Date:**	03.15.2015

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Platelets for Transfusion

Description of change(s):

1. Removed instructions for placing and receiving TPP orders. This changed with CPOE and we have new SOPs outlining the process.

2. Updated T&S requirements:

    a. Inpatients = entire hospitalization
    b. Outpatients = one year

Electronic Document Control System

Document No.: WAH.BB85[2]
Title: PLATELETS FOR TRANSFUSION
Owner: LESLIE.X.BARRETT LESLIE BARRETT
Status INWORKS
Effective Date: 03-Apr-2015 **Next Review Date:**

Non-Technical SOP

Title	**Platelets for Transfusion**
Prepared by	Stephanie Codina Date: 3/25/2011
Owner	Stephanie Codina Date: 3/25/2011

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
Local Issue Date:	Local Effective Date:	

Review:		
Print Name	**Signature**	**Date**

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1. PURPOSE

Platelets are essential for normal hemostasis. Specific changes induce platelet adherence to vessel walls and platelet activation, which leads to platelet aggregation and formation of a primary hemostatic plug. The primary goal of platelet transfusion is to provide adequate numbers of normally functioning platelets for the prevention or cessation of bleeding.

All platelets in inventory are leukocyte-reduced, apheresis platelets. The volume ranges from approximately 100 – 500 mL. Each bag contains a minimum of 3.0×10^{11} platelets and less than 5.0×10^{6} leukocytes. Platelets are stored at 20-24°C with continuous agitation for a maximum of 5 days.

2. SCOPE

Platelets may be ordered for transfusion in the following situations:

- Prophylactic treatment of a patient with platelet count <15,000/µL in a stable, non-bleeding patient
- Platelet count <50,000/µL in a patient who is actively bleeding
- Platelet count <100,000/µL in a patient undergoing invasive procedure or massive transfusion
- Documented platelet dysfunction and one of the following:
  - Active bleeding
  - Invasive procedure

3. RESPONSIBILITY

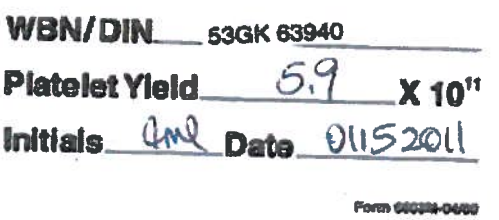
All Blood Bank employees are required to demonstrate competency in the indications for and handling of platelets for transfusion.

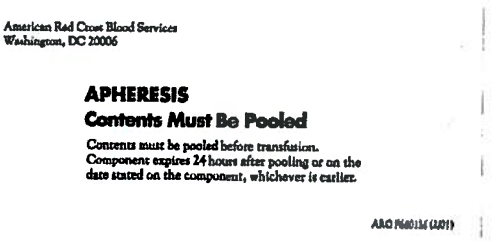
4. DEFINITIONS

Random Donor Platelets or Whole Blood Derived Platelets- platelets prepared from whole blood. This product is not stocked at Adventist Hospitals. They require bacterial testing prior to transfusion.

5. PROCEDURE

Step	Action
1	The floor will order platelets in the system using the "TPP" order. Blood bank staff members should receive the order per procedure.
2	Prior to allocating platelets, ensure the recipient has had a T&S drawn and tested. If the T&S is greater than 3 days old, ensure the recipient is wearing/has a valid blood bank armband (per procedure/policy). The T&S is good for the following intervals: A. Inpatients: Entire hospitalization B. Outpatients: One year
3	Choose platelet units from the rotator for the recipient. A. Platelets contain ABO antigens. a. Type specific platelets have shown to last longer in the circulation. However, ABO-incompatible platelets may be transfused to adults. b. Pediatric and neonatal recipients **must** receive platelets containing plasma that is compatible with the recipient. If ABO-compatible platelets are not available, volume-reduced platelets may be used. c. Attempts should be made to provide group-specific platelets to patients who have a positive DAT due to transfusion of out-of-group platelets (eluted anti-A, -B, or –AB from cells). Consult a supervisor or pathologist with questions. B. Platelets do not contain Rh-antigens. However, the potential for red cell contamination exists. Review the following guidelines when selecting platelets for Rh-negative recipients. a. Rh-negative females of child-bearing age (<50 years old) should receive Rh-negative platelets. i. These patients may receive Rh-positive platelets in emergency situations where Rh-negative platelets are unavailable. 1. These patients will require RhIG within 72 hours of transfusion to minimize the potential for D sensitization. A physician's order is needed for RhIG administration. 2. Notify the BB Supervisor or on-call pathologist if the treating physician has questions. b. Rh-negative patients who are not females of childbearing age may receive Rh-positive platelets if Rh-negative platelets are not available. These patients will be given RhIG at the request of the treating physician. c. One vial of RhIG (300 µL) will provide protection for up to 7 units of Rh-positive apheresis platelets. C. Select platelets that meet the required attributes of the patient (CMV-seronegative, irradiated, crossmatched, or HLA-matched). Refer to procedures, HLA Matched/Crossmatched Platelet Pheresis Products, Blood Component Irradiation, Component Selection to Reduce the Risk of Transfusion Associated CMV Disease. D. Irradiate platelet per procedure, "Blood Component Irradiation" if indicated.

Step	Action
4	Platelet products that contain visible amounts of red blood cells are generally not accepted into inventory. A. Platelets must be ABO-compatible and crossmatched to the recipient if they are pink or red in color due to red blood cell contamination. B. Refer to procedure, "Crossmatch." C. When crossmatch is performed, the T&S must be current per red cell transfusion procedures.
5	Some blood suppliers will document the platelet yield on a tie tag attached to the product. This can be given to the patient care area if requested.  WBN/DIN 53GK 63940 Platelet Yield 5.9 X 10^{11} Initials AML Date 01152011
6	Allocate the platelet unit to the designated recipient using Sunquest function, "Blood Order Processing." A. Access Blood Order Processing. B. Open the TPP order form the order list. C. Review the order, indications, and provider instructions. D. Enter the recipient's blood bank armband number in the "Armband #" field. E. Click the "Allocation" tab. F. At the "Unit #" prompt, scan the unit number from the platelet unit. G. At the "Component" prompt, scan the E code from the product. This will autofill the component and division fields. H. Click the "Select" button to allocate the unit to the recipient. Repeat steps 4A-H for any additional platelets to be allocated.
7	Each unit that was allocated to the patient will appear in the "Compatibility Testing" area of the screen. In the "TS" column, enter "]" for each unit to indicate the unit is acceptable for transfusion to the patient. Do not allocate units that do not meet specifications.
8	Click the "Save" button.
9	The message, "Continue to Blood Product Issue?" will appear. A. Click "Yes" and continue per issuing procedure if the platelet will be immediately issued. B. Click "No" if the platelet will be stored in the blood bank prior to issue.
10	Attach the printed patient information and store the platelet in the platelet rotator (20-24°C) until issue or expiration.

Step	Action
11	Note: Some platelet products are left in two connected bags to improve platelet viability during storage by providing more surface area for gas exchange. ARC places the following tag on the platelets:  A. Pool the platelets into one bag and heat seal/crimp the tubing. B. Change the expiration of the unit to 24 hours after the pool (date and time) if sooner than the current expiration date. Do not extend an expiration date! a. Change the expiration date in the LIS system. i. Access Sunquest function "Blood Product Entry." ii. Click on the "Modify Unit" button. iii. At the "Unit #" prompt, scan or type the unit number of the blood product. iv. If prompted, scan the collection facility. v. Choose the correct component from the dropdown list if it doesn't autofill. vi. Click the "OK" button. vii. Change the expiration date and time in the appropriate fields. viii. Click the "Save" button. b. Reprint an expiration date label for the product per procedure. C. Remove the tag and discard.
12	Note: At Shady Grove, a platelet administration set should be issued with each platelet.

6. RELATED DOCUMENTS

SOP: Order Entry, Receiving Orders in the GUI System
SOP: Disposal of Blood and Blood Products
SOP: Issuing Blood Components
SOP: HLA Matched / Crossmatched Platelet Pheresis Products
SOP: Blood Component Irradiation
SOP: Component Selection to Reduce the Risk of Transfusion Associated CMV Disease
SOP: Crossmatch

7. REFERENCES

1. Fung, M.K., Grossman, B.J., Hillyer, C.D., and Westhoff, C.M. 2014. Technical Manual of the AABB, 18th ed. AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 29th ed. AABB Publishing, Bethesda, Maryland.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes WAB.016.000, SHB.016.000		
000	6.14.13	Section 2: Updated indications for platelet transfusion per new hospital guidelines. Section 5: Removed instructions for how to enter orders for platelet transfusion. Updated instructions for receiving a transfuse platelet order. Added instructions to provide group specific platelets for patients with eluted ABO antibodies due to out-of-group plt txn.	SCodina	NCacciabeve
001	2.24.15	Section 5: Deleted instructions for ordering and receiving transfuse platelet orders and refer staff to new SOP. Updated for CPOE process. Updated T&S requirements for platelet transfusion. Section 6: Updated list Footer: Version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

N/A