 <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p>	Document Code:	DPOTMH-E-52-P01-S09
	Effective Date:	07-31-2022
	Document Type:	Standard Operating Procedure
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	Department/Section:	Blood Bank Section
	Document Title:	WASHED RED CELL PREPARATION

PURPOSE:

To provide guidelines on the Washed Red Cell Preparation to ensure that is being done in a correct manner. Washed red cell preparation is intended for patients with severe allergic reactions associated with transfusion, reactions subsequent to transfusions, to reduce and prevent transfusion reactions and to remove residual plasma proteins, excess potassium, cytokines or antibodies that may be the cause of the reactions.

SCOPE:


Applies to all Blood Bank Section Staff of Laboratory Department of Dr. Pablo O. Torre Memorial Hospital (DPOTMH)

PERSON RESPONSIBLE:

Medical Technologist (Medical Laboratory Scientist), Nurses, Clerks

GENERAL GUIDELINES:

- 1 Proper patient identification shall be strictly observed (Cross reference with Policy on Two Person Identifier). Identify the patient by their complete name and birthdate. Tubes must be properly labeled with patient's complete name for it is crucial and needs emphasis in clinical settings.
- 2 Impervious gloves and proper protective equipment (PPE) / clothing shall be worn in adherence to Infection Control Protocol.
- 3 Specimens collected shall be considered as biohazard material.
- 4 Nurse in charge or the requesting physician shall be informed that once the blood is washed or processed, it should be transfused immediately not exceeding 24 hours.

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PROCEDURE:

SET-UP PROCEDURE

1. Hook the IV set into 1 liter of Normal Saline Solution. Make sure that the roller clamp or flow controller is locked.
2. Hang the Normal Saline Solution at the top of the IV stand.
3. Insert the gauge 16 / 18 gauge needle at the Luer lock adapter, the tip end tubing of the IV set.
4. Unknot all the knotted pilot tubes of the blood bag.

WASHING PROCEDURE

1. Make sure that the blood to be processed had been standing for 4-6 hours or spun at 2,400 rpm or program number 3 of the machine until red blood cells have settled at the bottom of the blood pack.
2. After spin or when the blood has settled, place the spun or settled blood in the separator stand. Process blood into Packed RBC (Cross reference to the procedure on standard operating procedures on Blood Processing) by releasing the handle of the separator stand to completely decant the plasma including the buffy coat.
3. Pull down the handle to its position after the plasma decant including the buffy coat. Knot the tip-end of the pilot tube.
4. Disinfect the tip portion of the pilot tube with an alcohol followed by Betadine Prep solution in a one way direction. Let it dry.
5. Gently hook or insert the needle attached to the IV set onto the disinfected site of the pilot tube and cover with micropore or plaster.
6. Run down about 200mL of Normal Saline Solution by loosening the roller clamp or flow controller of the IV set. Weigh using the weighing scale. Gently mix the blood by hand from time to time.
7. After filling the bag with NSS, knot the pilot tube at the top right after the hooked portion.

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8. Gently mix by hand or mechanical mixer for about 10-15 minutes,
9. Spin the resuspended blood at the refrigerated centrifuge using program number 3 of the machine or program for PRP preparation (light spin).
10. Place again the spun or settled blood at the separator stand and cut the tip-end portion of the pilot tube to completely decant the saline solution leaving the packed red blood cell.
11. Repeat step 5, 6, 7 and 8 for three (3) times to completely wash the red cells.
12. After the last wash, weigh the bag and resuspend the packed RBC with normal saline solution, 30% of the total volume of the packed RBC.
13. Gently mix again by hand or mechanical mixer for about 5-10 minutes to completely mix and resuspend the RBC.
14. Label the unit as "Washed Red Cells" and indicate expiry date and time (24 hours from time the unit was processed to packed RBC as open system). Store washed packed red cells at 2-8°C.
15. Call up station in a soonest possible time and inform them that the blood is ready for transfusion.

REFERENCE:

International Journal of Clinical Transfusion Medicine




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APPROVAL:

	Name/Title	Signature	Date
Prepared by:	MELISSA THERESE B. LABAYEN, RMT Blood Bank Section Head		07.07.2022
Verified by:	MONICA B. VILLANUEVA, RN, RMT, PhD Laboratory Manager		7-7-2022
	MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology		7-7-2022
Reviewed by:	DENNIS C. ESCALONA, MN, FPSQua Quality Assurance Supervisor		7-07-2022
Recommending Approval by:	ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer		07.07.2022
	FREDERIC IVAN L. TING, MD OIC - Total Quality Division		7-8-22
Approved by:	GENESIS GOLDI D. GOLINGAN President and CEO		9/7/22

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KEY TASKS	PERSON RESPONSIBLE
SET-UP PROCEDURE	
1. Hooks the IV set into 1 liter of Normal Saline Solution. Make sure that the roller clamp or flow controller is locked.	Medical Technologist
2. Hangs the Normal Saline Solution at the top of the IV stand.	
3. Insert the gauge 16 / 18 gauge needle at the Luer lock adapter, the tip end tubing of the IV set. Unknot all the knotted pilot tubes of the blood bag.	
WASHING PROCEDURE	
1. Makes sure that the blood to be processed had been standing for 4-6 hours or spun at 2,400 rpm or program number 3 of the machine until red blood cells have settled at the bottom of the blood pack.	Medical Technologist
2. Places the spun or settled blood in the separator stand.	
3. Pulls down the handle to its position after the plasma decant including the buffy coat.	
4. Disinfects the tip portion of the pilot tube with an alcohol followed by Betadine Prep solution in a one way direction.	
5. Gently hooks or inserts the needle attached to the IV set onto the disinfected site of the pilot tube and cover with micropore or plaster.	
6. Runs down about 200mL of Normal Saline Solution	




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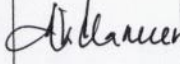


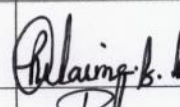

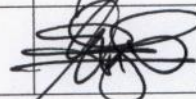
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by loosening the roller clamp or flow controller of the IV set.	
7. Knots the pilot tube at the top right after the hooked portion after filling the bag with NSS.	Medical Technologist
8. Gently mixes by hand or mechanical mixer for about 10-15 minutes.	
9. Spins the resuspended blood at the refrigerated centrifuge using program number 3 of the machine or program for PRP preparation	
10. Places again the spun or settled blood at the separator stand and cut the tip-end portion of the pilot tube to completely decant the saline solution leaving the packed red blood cell.	
11. Repeats step 5, 6, 7 and 8 for three (3) times to completely wash the red cells.	
12. Weighs the bag and resuspend the packed RBC with normal saline solution, 30% of the total volume of the packed RBC after the last wash.	
13. Gently mixes again by hand or mechanical mixer for about 5-10 minutes to completely mix and resuspend the RBC.	
14. Labels the unit as "Washed Red Cells" and indicate expiry date and time (24 hours from time the unit was processed to packed RBC as open system).	
15. Calls up station in a soonest possible time and inform them that the blood is ready for transfusion.	

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Prepared by:	MELISSA THERESE B. LABAYEN, RMT Blood Bank Section Head		07.07.2022
Verified by:	MONICA B. VILLANUEVA, RN, RMT, PhD Laboratory Manager		1-7-2022
	MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology		7-7-2022
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Recommending Approval by:	ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer		07.07.2022
	FREDERIC IVAN L. TING, MD OIC - Total Quality Division		7-8-22
Approved by:	GENESIS GOLDI D. GOLINGAN President and CEO		9/7/22



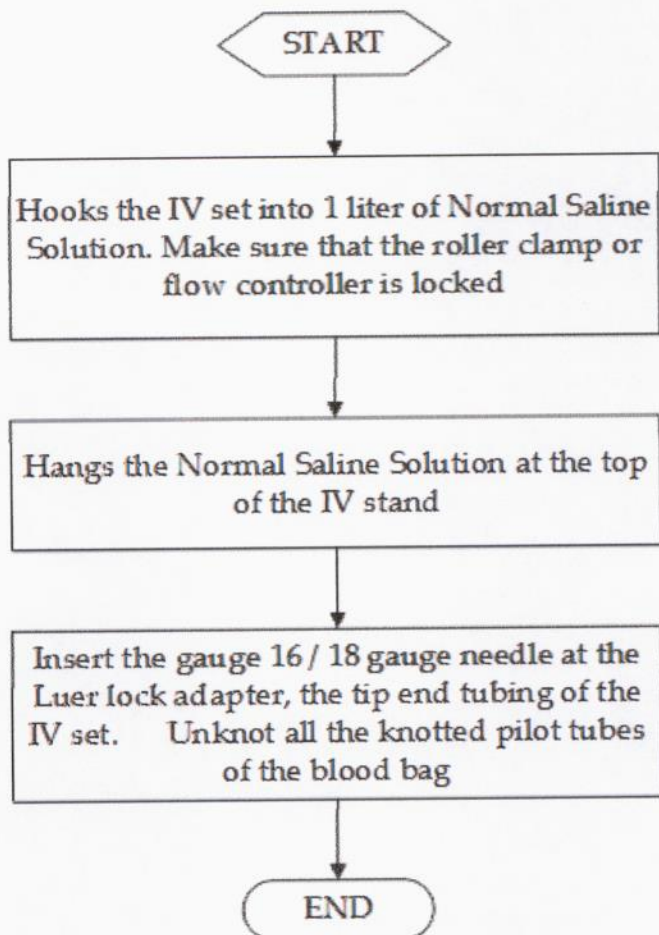
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FLOWCHART

SET-UP PROCEDURE





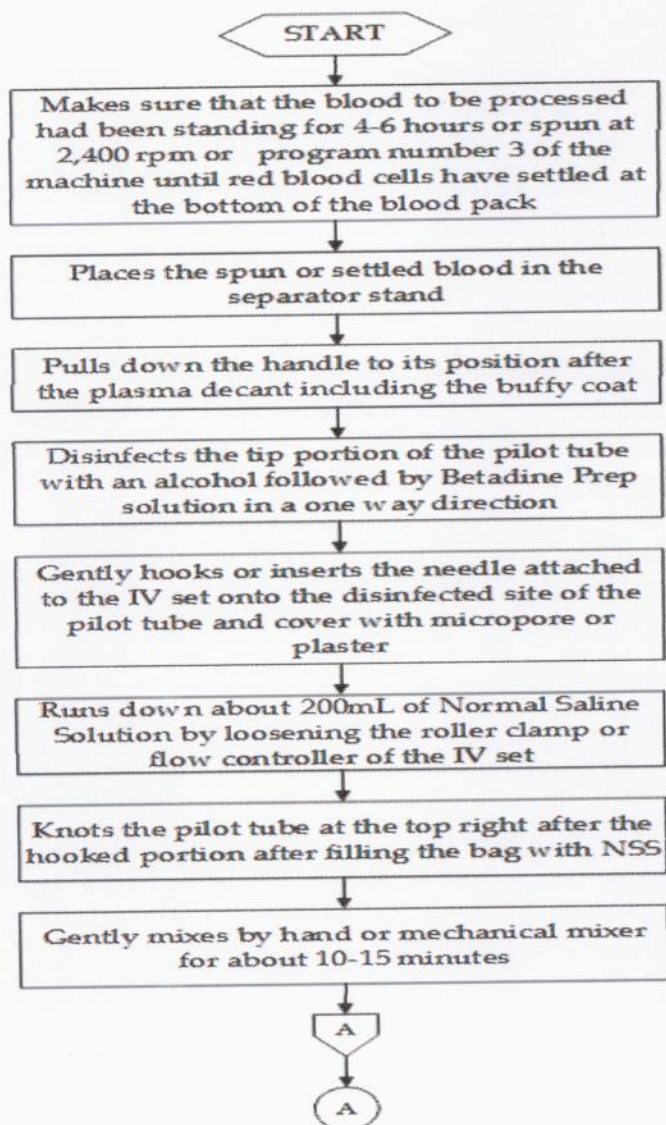
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FLOWCHART

WASHING PROCEDURE



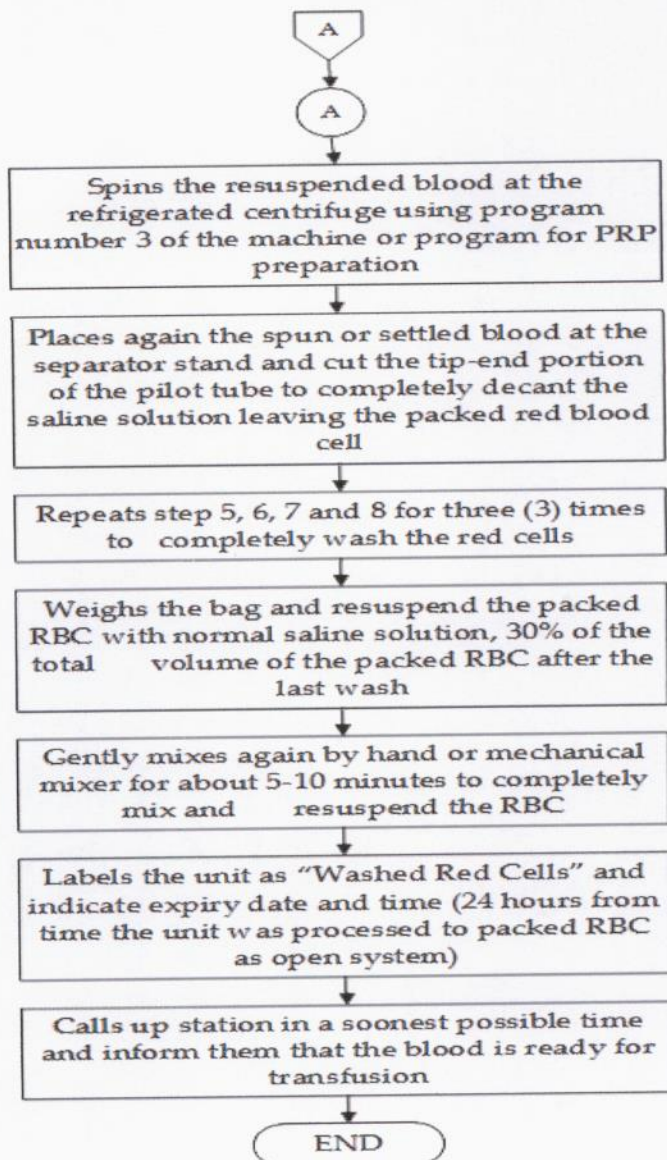



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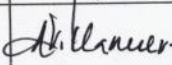


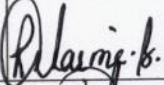

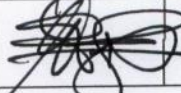
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