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Effective Date:	06-30-2022	
Document Type:	Standard Operating Procedure	
Page Number:	1 of 3	
Department/Section:	Hematology	
Document Title:	RETICULOCYTE COUNT	

PURPOSE:

To describe in detail how to prepare, process and measure the Reticulocyte (Retic) Count correctly. The Reticulocyte (Retic) Count indicates the ability of the bone marrow to respond to anemia and make red blood cells. It is also used to classify and monitor therapy for anemia.

SCOPE:

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

PERSON RESPONSIBLE:

Medical Technologists (Medical Laboratory Scientists), Pathologists, Medical Doctors, Nurses, Medical Trainees, Laboratory Clerks

PROCEDURE:

- 1. Hand washing shall be performed before and after the procedure.
- 2. The wearing of Personal Protective Equipment such as gloves, masks, goggles/face shield and gowns shall be observed in doing the procedure.
- The Medical Technologist collects blood in an EDTA lavender top tube (2mL/0.5mL tube) properly labeled with complete patient's name and date of collection.
- 4. Requests, unless indicated as "STAT" shall be included in the batch of examinations processed in a first come first serve basis.
- 5. The blood collected is inverted tip to tip 8-10 times gently for adequate mixing and to avoid hemolysis and destruction of chemical elements.
- 6. The Medical Technologist forwards properly the blood sample and patient's request to the Hematology Section. Medical Technologist then checks blood sample label, volume and clots prior to analysis. Not properly labeled sample is given back to the extractor for correct labeling. Insufficient volume and clotted



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sample is subject for repeat blood collection and the medical technologist, nurse incharge or the patient will be informed immediately.

- 7. Place 1 drop of brilliant cresyl blue stain in a small test tube. And then add 1 drop of well-mixed whole blood.
- 8. Mix the tube and allow to stand at room temperature or incubate at 37°C for 15 minutes. This allows the reticulocyte adequate time to take up the stain.
- 9. At the end of 15 minutes, mix the tube well. Prepare several smears and allow to air dry.
- 10. Place the slide on the microscope stage and using low power objective and further locate an area in which there are approximately 100 to 200 red blood cells per oil immersion field.
- 11. As soon as the proper area is selected, the reticulocytes may be counted. The red blood cells will be light to medium green in color. The RNA present in the reticulocytes stains a deep blue. The reticulocyte may be abundant on spaces depending on the cell's stage development. The youngest reticulocyte shows largest amount of RNA whereas the more mature reticulocyte shows only a small amount of RNA. Count all the reticulocytes in 1000 red blood cells.
- The Medical Technologist notes microscopic count in the request and encodes results in the system.
- 13. The Medical Technologist/Laboratory Clerk prints out results for outpatients at the reception area upon presentation of the Official Receipt (OR) and results for admitted patients can be viewed and printed out by nurses to its respective stations.
- 14. Names and results of patient shall be recorded in the Hematology logbook.
- 15. Turn-around time for releasing Reticulocyte count result is within 2 hours.

REFERENCE:

Hematology Handbook for Medical Technologists/Shirley I. Fabian-Cruzada, MSPH, RMT/Philippines



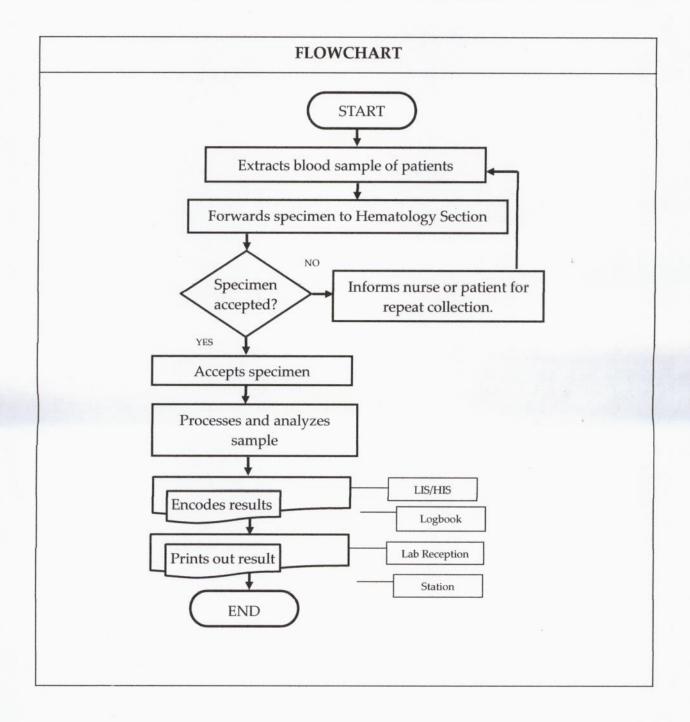
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	KEY TASKS	PERSON RESPONSIBLE
1.	Encodes the request of the patient to BIZBOX system.	Laboratory Clerks and Nurses
2.	Extracts blood sample from the patients.	
3.	Ensures sample is acceptable for testing.	
4.	Disposes properly and safely biohazardous and infectious wastes and materials.	
5.	Ensures laboratory equipment is clean, functional and calibrated.	Medical Technologist/Nurse
6.	Encodes the request in the system.	
7.	Processes and analyzes samples.	
8.	Releases and validates result thru BIZBOX System.	
9.	Records result to Hematology logbooks.	
10. Endorses the patient's results to the patient or doctor.		Laboratory Clerks and Nurses



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