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	Effective Date:	06-30-2022
	Document Type:	Standard Operating Procedure
	Page Number:	1 of 4
	Department/Section:	Hematology
	Document Title:	ERYTHROCYTE SEDIMENTATION RATE (ESR)

PURPOSE:

To carry out the process and procedure for Erythrocyte Sedimentation Rate (ESR) test correctly and always in the same manner. It is a fairly reliable indicator of the course of disease and therefore can be used to monitor disease therapy, especially for inflammatory autoimmune diseases (e.g. temporal arteritis, polymyalgia, rheumatic).

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.
- 3 The Medical Technologist collects blood in a black top tube (2.4mL tube) properly labeled with complete patient's name and date of collection. The blood should be at room temperature.
- 4 The Medical Technologist collects blood sample, filled to specified volume, no underfilling or overfilling and is inverted tip to tip 8-10 times gently for adequate mixing and to avoid hemolysis and destruction of chemical elements.
- 5 Specimens collected shall be considered as biohazardous material and the disposal of syringes and needles will be according to Infection Control guidelines.

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	Effective Date:	06-30-2022
	Document Type:	Standard Operating Procedure
	Page Number:	2 of 4
	Department/Section:	Hematology
	Document Title:	ERYTHROCYTE SEDIMENTATION RATE (ESR)


- 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 sample is subject for repeat blood collection and the medical technologist, nurse in-charge or the patient will be informed immediately.
- 7 The Medical Technologist fills the Westergreen pipette to exactly zero mark, making sure that there is no air bubbles in the blood.
- 8 The Medical Technologist places the pipette in the ESR rack. Be certain that the pipette fits surely and evenly into the grove provided.
- 9 Avoid factors that shall serve as sources of errors like:
 - 9.1 Sedimentation tube not vertically aligned.
 - 9.2 Vibration in the testing area. Centrifuge and shakers machines should not be within the area.
 - 9.3 Variations in temperature.
 - 9.4 Hemolysis and blood clots in sample.
- 10 The Medical Technologist allows the pipette to stand for exactly sixty minutes or one hour.
- 11 At the end of one hour, the Medical Technologist records the number of millimeters/hour the red cell have follow and encodes ESR result in the system.
- 12 The Medical Technologist/Laboratory Clerk prints out and releases results to outpatients at the reception area upon presentation of the Official Receipt (OR) and results for admitted patients are can be viewed and printed out by nurses to its respective stations.
- 13 Names and results of patient shall be recorded in the Hematology logbook.

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	Effective Date:	06-30-2022
	Document Type:	Standard Operating Procedure
	Page Number:	3 of 4
	Department/Section:	Hematology
	Document Title:	ERYTHROCYTE SEDIMENTATION RATE (ESR)

14 Turn-Around Time for releasing ESR result is within 2 hours.

REFERENCES:

1. Hematology Handbook for Medical Technologists/Shirley I. Fabian-Cruzada, MSPH, RMT/Philippines
2. <https://www.mayocliniclabs.com/tests-procedures/sed-rate>

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	Effective Date:	06-30-2022
	Document Type:	Standard Operating Procedure
	Page Number:	4 of 4
	Department/Section:	Hematology
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	MONICA B. VILLANUEVA, RMT, PhD Laboratory Manager	<i>[Signature]</i>	7-6-2022
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Reviewed:	DENNIS C. ESCALONA, MN, FPSQua Quality Assurance Supervisor	<i>[Signature]</i>	07-06-2022
Recommending Approval:	ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer	<i>[Signature]</i>	07.06.2022
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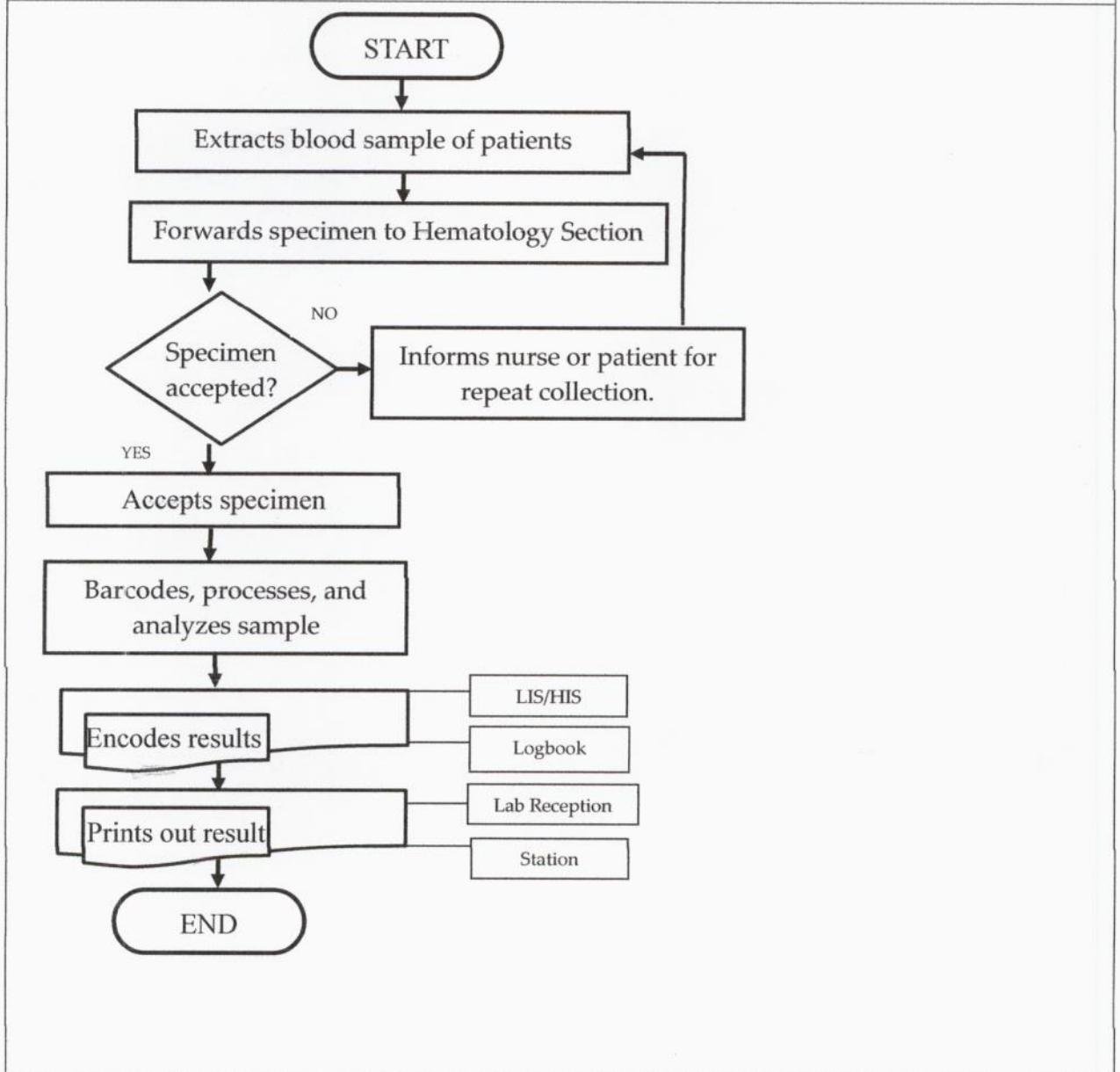



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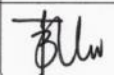
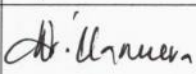
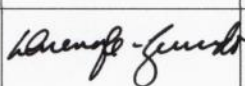

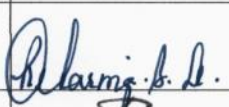


Document Code:	DPOTMH-E-57-P01-FC02
Effective Date:	06-30-2022
Document Type:	Flowchart
Page Number:	1 of 2
Department/Section:	Hematology
Document Title:	ERYTHROCYTE SEDIMENTATION RATE (ESR)

FLOWCHART




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			Effective Date:	06-30-2022
			Document Type:	Flowchart
			Page Number:	2 of 2
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	Effective Date:	06-30-2022
	Document Type:	Work Instruction
	Page Number:	1 of 2
	Department/Section:	Hematology
	Document Title:	ERYTHROCYTE SEDIMENTATION RATE (ESR)

KEY TASKS	PERSON RESPONSIBLE
1. Encode the request of the patient to BIZBOX system.	Laboratory Clerks and Nurses
2. Collects blood in a black top tube (2.4mL tube) properly labeled with complete patient's name and date of collection. The blood should be at room temperature.	Medical Technologist/Nurse
3. Checks sample label, volume and clots prior to analysis.	
4. Encodes the request in the system.	
5. Processes and analyzes samples.	
6. Release and validate results thru BIZBOX System.	
7. Record results to Hematology logbooks.	Laboratory Clerks and Nurses
8. Endorse the patient's results to the patient or doctor.	

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