DR. PABLO O. TORRE MEMORIAL HOSPITAL
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Document Code:	DPOTMH–E-55-P01-S13
Effective Date:	06-30-2022
Document Type:	Standard Operating Procedure
Page Number:	1 of 4
Department/Section:	Clinical Chemistry
Document Title:	**CALCIUM ASSAY**

PURPOSE:

To describe in detail how to prepare and process the Calcium Assay test correctly and always in the same manner. The serum calcium test is used to evaluate parathyroid function and calcium metabolism by directly measuring the total amount of calcium in the blood. Serum calcium levels are also used to monitor patients with renal failure, renal transplantation, hyperparathyroidism and various malignancies and also used to monitor calcium levels during and after large volume of blood transfusions.

SCOPE:

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

PERSON RESPONSIBLE:

Doctors, Nurses, Medical Technologists, Pathologists, Patients, Clerks and Receptionist

GENERAL GUIDELINES:

1 No special preparation is necessary.

2 Collection tubes containing EDTA, Fluoride, oxalate, or citrate shall not be used as these substances chelates calcium causing negative bias.

3 Blood from patients on EDTA therapy shall not be used.

4 Collect specimen using standard laboratory procedures.

5 Refer to clinical chemistry section staff on duty on sample handling for recommended minimum sample volumes required by the analyzer.

6 Specimens collected shall be considered as biohazardous material.

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7 The Medical Technologist shall handle specimens in stoppered containers to avoid contamination and evaporation.

8 If sample show total calcium concentrations that exceeds the system's reportable (dynamic) range, the Medical Technologist shall follow this procedure:

8.1 Dilute with an equal volume of reagent-grade water or isotonic saline.

8.2 Reanalyze

8.3 Multiply the results by two (2) to obtain the original sample's total bilirubin concentration.

9 The Medical Technologist shall avoid agitation or mixing of plasma samples after centrifugation. Resuspension of platelets into previously centrifuged plasma may lead to artificially elevated total bilirubin results.

10 Remove serum from clots within four (4) days of collection.

11 Prior to blood collection, the Medical Technologist shall check on the wrist band for patient identification or for the policy on two (2) acceptable person identifiers applied such as allowing the patient to state his/her complete name, date of birth, address or the assigned identification number.

12 Tubes must be labeled prior to blood extraction and a sufficient amount of blood shall be extracted to ensure that repeated additional examinations could be performed.

13 Endorse the blood samples properly to the Medical Technologist on duty in Clinical Chemistry Section.

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PROCEDURE:

1. Blood specimens collected in 5 mL red top tubes are checked if properly labeled and then subjected to centrifugation at 3500 rpm for 5 minutes.

2. Specimens are then bar-coded through the LIS and barcode labels are placed properly in the tubes without overlapping the handwritten details written by the phlebotomist.

3. Bar-coded specimens are placed in the analyzers sample racks. The Medical Technologist then press the start or on button of the analyzer to begin analyses.

4. Results are then copied from the LIS and verified by the Medical Technologist.

5. Once verified, results are released to the HIS wherein the nurses from the different nurse's station in the hospital as well as the Releasing Clerks can see and print the results.

REFERENCES:

1. Ortho Clinical Diagnostics Instruction for Use (IFU).

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APPROVAL:

	Name/Title	Signature	Date
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	MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology		07-13-2022
Reviewed:	**DENNIS C. ESCALONA, MN, FPSQua** Quality Assurance Supervisor		07-13-2022
Recommending Approval:	**ROSARIO D. ABARING, MAN, PhD** Ancillary Division Officer		07.13.2022
	FREDERIC IVAN L. TING, MD OIC - Total Quality Division		7/20/22
Approved:	**GENESIS GOLDI D. GOLINGAN** President and CEO		9/7/22

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KEY TASKS	PERSON RESPONSIBLE
1. Collects blood specimen in 5 mL red top tubes, labels properly and then subjected to centrifugation at 3500 rpm for 5 minutes.	Medical Technologist
2. Bar codes specimens through the LIS and places properly in the tubes without overlapping the handwritten details written by the phlebotomist.	
3. Places bar-coded specimens in the analyzers sample racks.	
4. Presses the start or on button of the analyzer to begin analyses.	
5. Verifies results.	
6. Releases results after verification to the HIS wherein the nurses from the different nurse's station in the hospital as well as the Releasing Clerks can see and print the results.	

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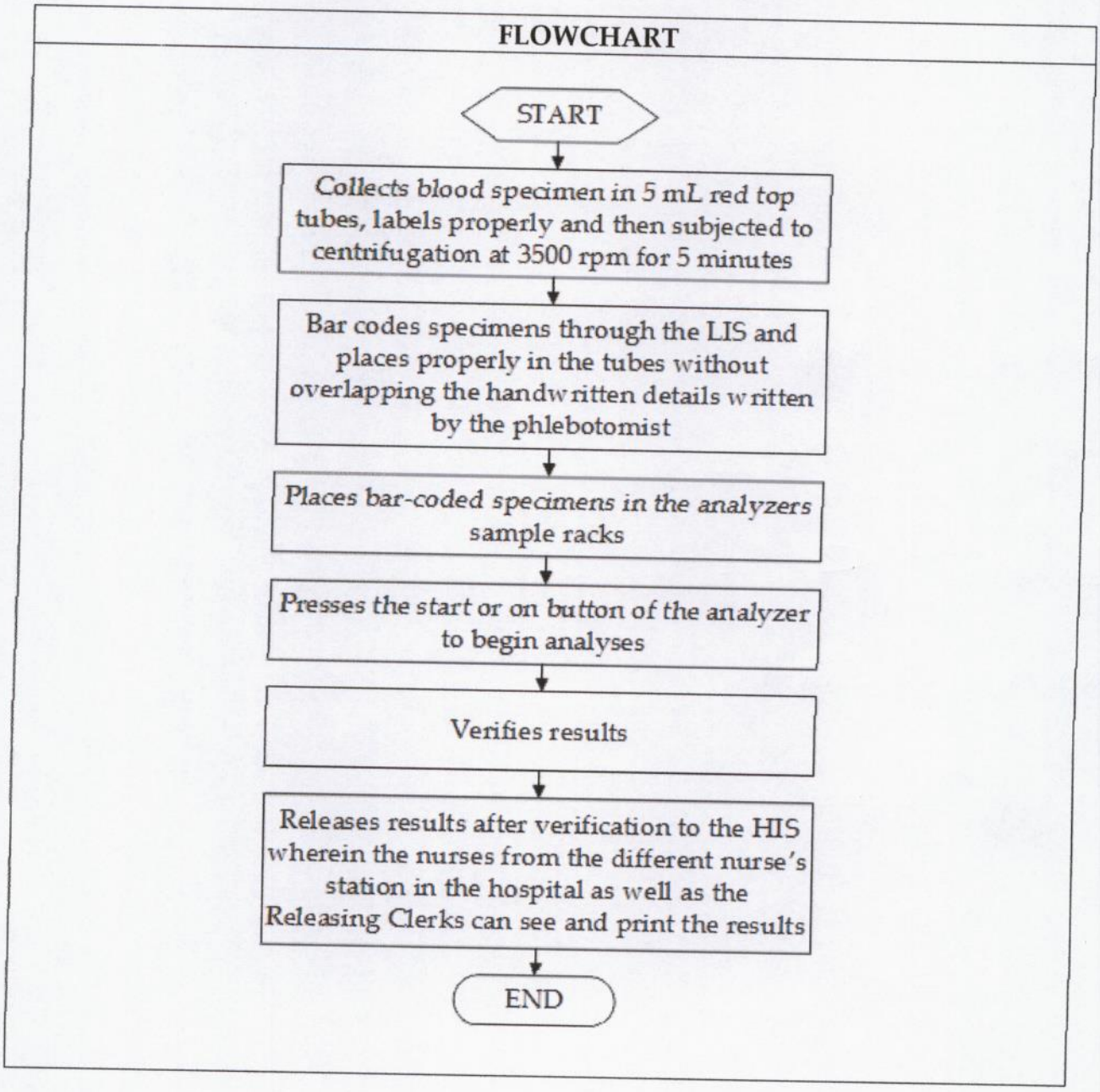
FLOWCHART



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