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	Effective Date:	06-30-2022
	Document Type:	Standard Operating Procedure
	Page Number:	1 of 4
	Department/Section:	Clinical Chemistry
	Document Title:	<b>ASPARTATE AMINO ACID (AST/SGOT) ASSAY</b>

### **PURPOSE:**

To describe in detail how to prepare and process the AST/SGOT Assay test correctly and always in the same manner. Aspartate Aminotransferase (AST/SGOT) is used to monitor cellular damage and an indicator of myocardial infarction. It is also used in the evaluation of patients with suspected coronary occlusive heart disease or hepatocellular disease.

### **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 Due to high levels of AST activity in erythrocytes, hemolyzed samples shall not be used.
- 3 Specimens shall be free from cellular material. Because of high AST activity in platelets there may be significant difference between results obtained from serum compared with fresh plasma. Centrifuge less than ten (10) minutes.
- 4 Specimens shall be collected in a Red-Top blood collecting tube.
- 5 Impervious gloves and proper protective clothing shall be worn.
- 6 Collect specimen using standard laboratory procedures.
- 7 Specimens collected shall be considered as biohazardous material.

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- 8 If sample show AST/SGOT concentration that exceeds the system's reportable (dynamic) range, the Medical Technologist shall follow this procedure:
  - 8.1 Dilute sample with 7% BSA.
  - 8.2 Analyze
  - 8.3 Multiply the results by dilution factor to obtain the original sample's AST concentration.
- 9 Analyze control material at least once per day to verify system performance.
- 10 Remove serum from clots within three (3) 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.
- 14 Inspect serum specimen for fibrin clots, as it may cause incomplete sampling of the specimen. Allow specimen to clot completely in order to prevent fibrin clots.
- 15 Serum should not be used for ammonia measurements, because ammonia is produced during the clotting process.

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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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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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**APPROVAL:**

	Name/Title	Signature	Date
Prepared by:	<b>ALEXIS F. CORDIA JR., RMT</b> Section Head, Clinical Chemistry	<i>Alexis F. Cordia Jr.</i>	07/01/2022
Verified:	<b>MONICA B. VILLANUEVA, RMT, PhD</b> Laboratory Manager	<i>M. Villanueva</i>	07-13-2022
	<b>MELANIE ROSE B. ZERRUDO, MD, FPSP</b> Chair, Department of Pathology	<i>h8.</i>	07-13-2022
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Recommending Approval:	<b>ROSARIO D. ABARING, MAN, PhD</b> Ancillary Division Officer	<i>R. Abaring</i>	07.13.2022
	<b>FREDERIC IVAN L. TING, MD</b> OIC - Total Quality Division	<i>F. Ting</i>	7/14/22
Approved:	<b>GENESIS GOLDI D. GOLINGAN</b> President and CEO	<i>G. Golingan</i>	7/7/22



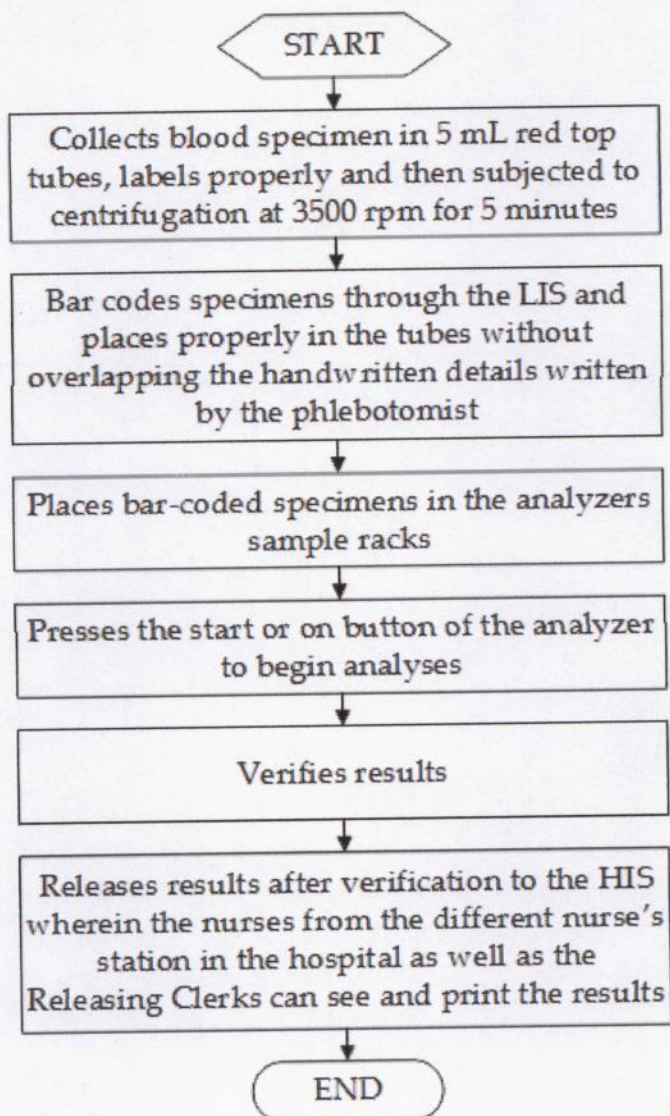



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### FLOWCHART




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	<b>MELANIE ROSE B. ZERRUDO, MD, FPSP</b> Chair, Department of Pathology	<i>MR.</i>	07-13-2022
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	<b>FREDERIC IVAN L. TING, MD</b> OIC - Total Quality Division	<i>F. Ting</i>	7/13/22
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**APPROVAL:**

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	<b>MELANIE ROSE B. ZERRUDO, MD, FPSP</b> Chair, Department of Pathology	<i>B.</i>	07-13-2022
Reviewed:	<b>DENNIS C. ESCALONA, MN, FPSQua</b> Quality Assurance Supervisor	<i>D. Escalona</i>	07-13-2022
Recommending Approval:	<b>ROSARIO D. ABARING, MAN, PhD</b> Ancillary Division Officer	<i>R. Abaring</i>	07-13-2022
	<b>FREDERIC IVAN L. TING, MD</b> OIC - Total Quality Division	<i>F. Ting</i>	7/19/22
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Approved:	<b>GENESIS GOLDI D. GOLINGAN</b> President and CEO	<i>G. D. Golingan</i>	7/7/22

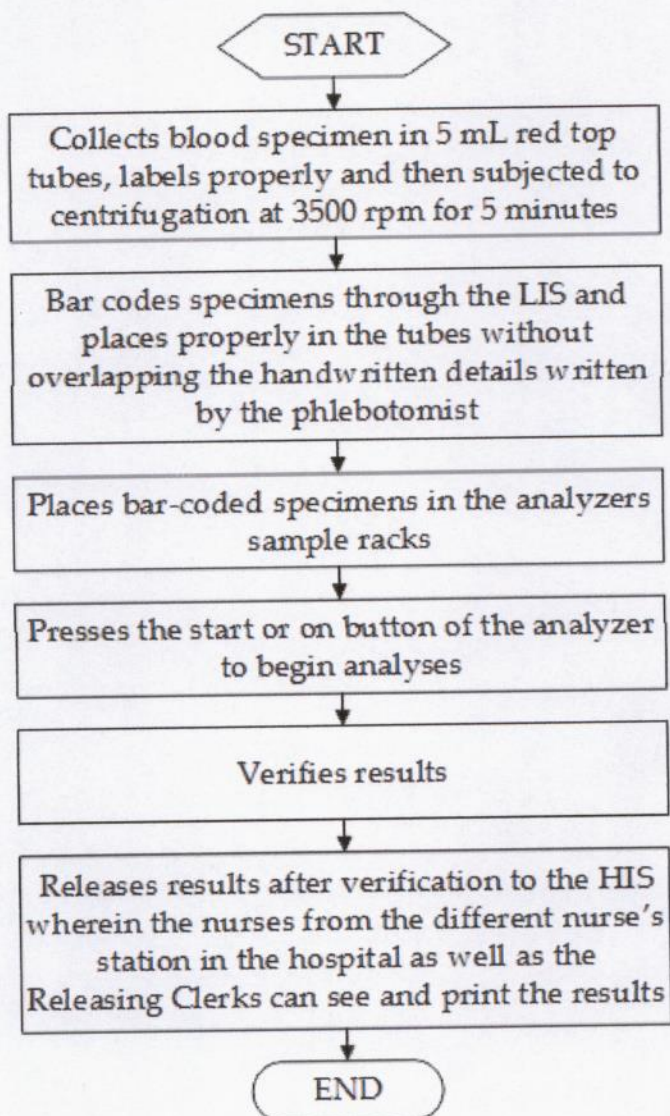


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