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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:	BILIRUBIN ASSAY

### **PURPOSE:**

To describe in detail how to prepare and process the Bilirubin Assay test correctly and always in the same manner. Total Bilirubin is used to evaluate liver function. It is part of the evaluation of adult patients with hemolytic anemia and newborns with jaundice.

### 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 The Medical Technologist shall protect the specimens from light as direct sunlight is reported to cause as much as 50% loss of bilirubin in one (1) hour, especially when the specimen is kept in capillary tubes.
- 3 Collect specimen using standard laboratory procedures.
- 4 Refer to clinical chemistry section staff on duty on sample handling for recommended minimum sample volumes required by the analyzer.
- 5 Specimens collected shall be considered as biohazardous material.
- 6 The Medical Technologist shall handle specimens in stoppered containers to avoid contamination and evaporation.



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- 7 If sample show albumin concentration that exceeds the system's reportable (dynamic) range, the Medical Technologist shall follow this procedure:
  - 7.1 Dilute 1 part of sample with 1 part reagent-grade water.
  - 7.2 Reanalyze
  - 7.3 Multiply the results by two (2) to obtain the original sample's total bilirubin concentration.
  - 7.4 If necessary, correct for the bilirubin in the diluent sample.
- 8 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.
- 9 Remove serum from clots within four (4) days of collection.
- 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.
- 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.
- 12 Endorse the blood samples properly to the Medical Technologist on duty in Clinical Chemistry Section.
- 13 Results will be released after 2 to 3 hours



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### PROCEDURE:

- 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.
- 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.
- 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:**

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.	
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.	Medical Technologist
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**

START

Collects blood specimen in 5 mL red top tubes, labels properly and then subjected to centrifugation at 3500 rpm for 5 minutes

Bar codes specimens through the LIS and places properly in the tubes without overlapping the handwritten details written by the phlebotomist

Places bar-coded specimens in the analyzers sample racks

Presses the start or on button of the analyzer to begin analyses

Verifies results

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

END



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