


| | | |
|---|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-S17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Standard Operating Procedure |
| | Page Number: | 1 of 4 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

PURPOSE:

To describe in detail how to prepare and process the Creatine Phosphokinase Assay test *correctly and always in the same manner*. Creatine Kinase is a test used to support the diagnosis of myocardial infarction and it can also indicate neurologic or skeletal muscle 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 Grossly hemolyzed samples shall not be used.
- 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.
- 7 If sample show CK concentration that exceeds the system's reportable (dynamic) range, follow this procedure:

| | | |
|---|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-S17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Standard Operating Procedure |
| | Page Number: | 2 of 4 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

- 7.1 Dilute the sample with 7% BSA.
 - 7.2 Reanalyze
 - 7.3 Multiply the results by the dilution factor to obtain the original sample's CK activity.
- 8 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 since CK unstable in serum.
 - 10 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.
 - 11 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 within 2 to 3 hours.


| | | |
|---|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-S17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Standard Operating Procedure |
| | Page Number: | 3 of 4 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

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).


| | | |
|--|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-S17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Standard Operating Procedure |
| | Page Number: | 4 of 4 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

APPROVAL:

| | Name/Title | Signature | Date |
|------------------------|--|-----------------------------|------------|
| Prepared by: | ALEXIS F. CORDIA JR., RMT Section Head, Clinical Chemistry | <i>Alexis F. Cordia Jr.</i> | 07/01/2022 |
| Verified: | MONICA B. VILLANUEVA, RMT, PhD Laboratory Manager | <i>M. Villanueva</i> | 07-13-2022 |
| | MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology | <i>MRB</i> | 7-13-2022 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPSQua Quality Assurance Supervisor | <i>D. Escalona</i> | 07-13-2022 |
| Recommending Approval: | ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer | <i>R. Abaring</i> | 07-13-2022 |
| | FREDERIC IVAN L. TING, MD OIC - Total Quality Division | <i>F. Ting</i> | 7/19/22 |
| Approved: | GENESIS GOLDI D. GOLINGAN President and CEO | <i>G. Golingan</i> | 9/7/22 |

| | | |
|---|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-WI17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Work Instruction |
| | Page Number: | 1 of 2 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

| 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. | |

| | | |
|--|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-WI17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Work Instruction |
| | Page Number: | 2 of 2 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

APPROVAL:

| | Name/Title | Signature | Date |
|---------------------------|--|-----------------------------|------------|
| Prepared by: | ALEXIS F. CORDIA JR., RMT Section Head, Clinical Chemistry | <i>Alexis F. Cordia Jr.</i> | 07/01/2022 |
| Verified: | MONICA B. VILLANUEVA, RMT, PhD Laboratory Manager | <i>M. Villanueva</i> | 07-13-2022 |
| | MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology | <i>MRB</i> | 07-13-2022 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPSQua Quality Assurance Supervisor | <i>D. Escalona</i> | 07-13-2022 |
| Recommending Approval: | ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer | <i>R. Abaring</i> | 07-13-2022 |
| | FREDERIC IVAN L. TING, MD OIC - Total Quality Division | <i>F. Ting</i> | 7/19/22 |
| Approved: | GENESIS GOLDI D. GOLINGAN President and CEO | <i>G. Golingan</i> | 9/2/22 |

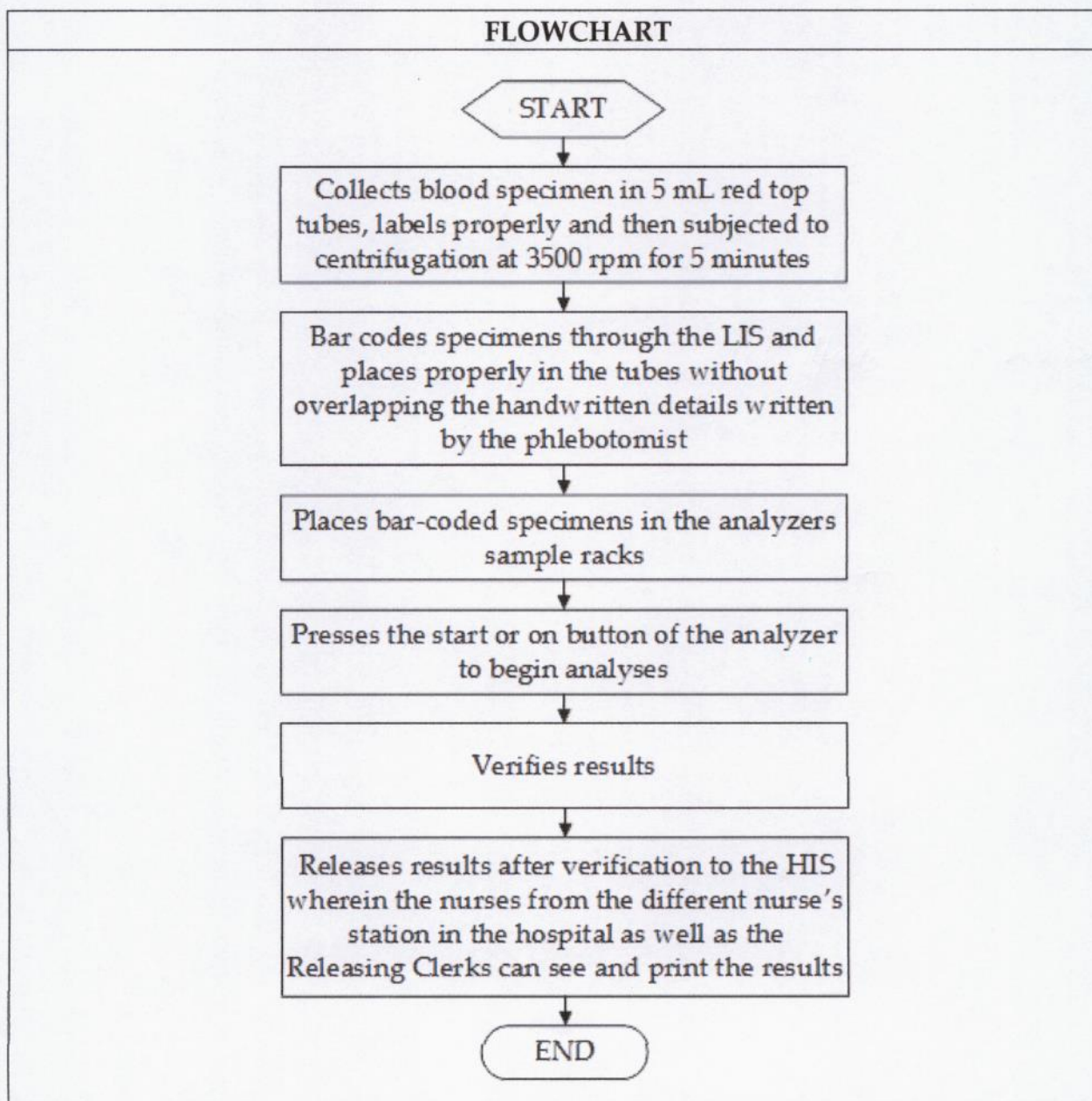



DR. PABLO O. TORRE
MEMORIAL HOSPITAL

B.S. Aquino Drive,
Bacolod City,
Negros Occidental,
6100

| | |
|---------------------|--|
| Document Code: | DPOTMH-E-55-P01-FC17 |
| Effective Date: | 06-30-2022 |
| Document Type: | Flowchart |
| Page Number: | 1 of 2 |
| Department/Section: | Clinical Chemistry |
| Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

FLOWCHART



| | | |
|--|---------------------|--|
|  <p>DR. PABLO O. TORRE MEMORIAL HOSPITAL</p> <p>B.S. Aquino Drive, Bacolod City, Negros Occidental, 6100</p> | Document Code: | DPOTMH-E-55-P01-FC17 |
| | Effective Date: | 06-30-2022 |
| | Document Type: | Flowchart |
| | Page Number: | 2 of 2 |
| | Department/Section: | Clinical Chemistry |
| | Document Title: | CREATINE PHOSPHOKINASE (CK, TOTAL CK) ASSAY |

APPROVAL:

| | Name/Title | Signature | Date |
|------------------------|--|----------------------------------|------------|
| Prepared by: | ALEXIS F. CORDIA JR., RMT Section Head, Clinical Chemistry | <i>Alexis F. Cordia Jr.</i> | 07/01/2022 |
| Verified: | MONICA B. VILLANUEVA, RMT, PhD Laboratory Manager | <i>Dr. Villanueva</i> | 07-13-2022 |
| | MELANIE ROSE B. ZERRUDO, MD, FPSP Chair, Department of Pathology | <i>MB</i> | 07-13-2022 |
| Reviewed: | DENNIS C. ESCALONA, MN, FPSQua Quality Assurance Supervisor | <i>Q</i> | 07-13-2022 |
| Recommending Approval: | ROSARIO D. ABARING, MAN, PhD Ancillary Division Officer | <i>Rosario D. Abaring</i> | 07.13.2022 |
| | FREDERIC IVAN L. TING, MD OIC - Total Quality Division | <i>F. Ting</i> | 7/19/22 |
| Approved: | GENESIS GOLDI D. GOLINGAN President and CEO | <i>Genesis Goldi D. Golingan</i> | 9/7/22 |