PHOSPHOROUS

a) PURPOSE OF THE EXAMINATION: Estimation of blood phosphorous level.

b) PRINCIPLE AND METHOD OF THE PROCEDURE USED FOR EXAMINATIONS: Phosphomolybdate

REACTION PRINCIPLE

Ammonium molybdate + Sulphuric acid + Phosphate ⟶ Inorg. Phosphorus molybdate complex

The complex absorption is maximal at 340 nm.

c) PERFORMANCE CHARACTERISTICS:

As per Kit Instruction. Measuring range 0.5 – 13 mg/dl.

d) TYPE OF SAMPLE: Serum.

e) PATIENT PREPARATION: As mentioned in QMSP 17.

f) TYPE OF CONTAINER AND ADDITIVES:

Serum vial / vacutainer. No additives required.

g) REQUIRED EQUIPMENT AND REAGENTS:

- ✓ TRANSASIA ERBA.
- ✓ Centrifuge.
- ✓ Sample (plasma).
- ✓ Micropipettes of variable volume from 0 – 1000 µl.
- ✓ Isotonic Saline or Reagent grade water FS Diluent Pack 2 or FS Diluent Pack 3.

h) ENVIRONMENTAL AND SAFETY CONTROLS:

i) CALIBRATION PROCEDURES:

We perform Full calibration as per plan and when required with calibration kit (CAL KIT 1)

PROCEDURAL STEPS:

- Blood is collected using standard laboratory procedures
- 3.0 ml of whole blood for serum preparation in vacutainer.
- Centrifuge whole blood at 3000 rpm for 15 minutes for serum separation.
- Put the vacutainer having clear serum into the sample rack of TRANSASIA ERBA

STORAGE : Separated serum should be stored in stoppered containers at -18 to –20 degree C for 1 week

PROCEDURE FOR CONFIRMATION / CORRECTION: 1. Dilute the sample with specialty diluent or isotonic range .

2. Reanalyze

3. Multiply the results by the dilution factor to obtain an estimate of the original sample amylase concentration.

ENVIRONMENTAL CONDITIONS:

1. Temp: 20-25^{0}C.
2. Humidity: not more than 70%.
3. Dust free.

k)QUALITY CONTROL PROCEDURES: We run controls (level 1 & level 2) BIORAD every day,

l)INTERFERENCES: No significant interference up to 60 mg/dl of conjugated bilirubin and 40 mg/dl of unconjugated bilirubin.. And triglycerides concentration of 2000 mg/dl. Haemoglobin upto 1000.

m)PRINCIPLE OF PROCEDURE FOR CALCULATING RESULTS INCLUDING, WE RELEVANT, THE MEASUREMENT UNCERTAINTY OF MEASURED QUANTITY VALUES:

n)BIOLOGICAL REFERENCE INTERVALS: 2.5-4.5 mg/dl

o)REPORTABLE INTERVAL OF EXAMINATION RESULTS: Normally after 8 hours in case of emergency 3 hour **.**

p)INSTRUCTIONS FOR DETERMINING QUANTITATIVE RESULTS WHEN A RESULT IS NOT WITHIN THE MEASUREMENT INTERVAL: NA

q)ALERT/CRITICAL VALUES: :

r)LABORATORY CLINICAL INTERPRETATION: Not done

s)POTENTIAL SOURCES OF VARIATION:

Increase in enzyme activity is observed in various hepatobiliary diseases and pancreatitis, acute myocardial infarction, heavy use of alcohol, carcinoma of breast and lung, neoplasms and carcinoma of prostrate.

t)REFERENCES:

- ✓ Tietz textbook of clinical chemistry. 4th ed. Philadelphia: W.B. Saunders Company; 1996.p.351-374.
- ✓ Kit Literature