☐ ADMINISTRATE POLICY & PROCEDURE (APP)	☐ INSTITUTIONAL POLICY & PROCEDURE (IPP) ☐ INTERDEPARTMENTAL ☐ INTERNAL	
TITLE		**POLICY NUMBER/V#**
Request Of Laboratory Test		MMC – LAB – 09 (01)
INITIATED DATE	**EFFECTIVE DATE**	**REVISED DATE**
02/08/2025	**01/09/2025**	**01/08/2028**
REPLACES NUMBER		**NO. OF PAGES**
N\A		11
APPLIES TO	**RESPONSIBILITY**	
All Laboratory staff	All Laboratory staff	

1. Policy

1.1 All laboratory request must be ordered by a physician written legibly on a laboratory request form containing all the patient information (Name, Age, Gender, Department Date and time requested)

1.2 All samples must have a written request and entered in the Medical Complex Information system.

1.3 In case of System down time all requests will be written manually.

2. Purpose

2.1 To outline the sample requirement for laboratory procedures, decreasing sample rejection, improving the compliance of TAT of test results to achieve proper care of the patients.

3. Definition

3.1 MRN: Medical Record Number.

3.2 STAT: Short Time Around Time.

3.3 QNS: Quantity Not Sufficient.

4. Affected department

4.1 Medical Department

5. Procedures

5.1 Test Ordering

Principles:

Any Lab test should be ordered through a hard and soft copy. Soft copy should not replace hardcopy (Receipt) or (request form).

5.1.1 All laboratory tests are ordered via the Medical Complex Information System "HIS" in the computer utilizing the name of the ordering physician, test priority and collection category.

5.1.2 After ordering, print the request from computer, approve it by the treating physician and send to lab with specimen in a protective biohazard plastic bag inside a leak proof box.

5.1.3 Besides ordering the test in the computer, it should be ordered using the appropriate requisition form for the designated lab.

5.1.4 Hard copy requisition must be filled up completely and sent with properly labeled specimen. Incomplete requisition or unsatisfactory specimen will be rejected.

5.1.5 Additional information may also be required if specific request is used (related to the sectioned in the laboratory) for special tests.

5.1.6 Read hard copy requisition carefully and ensure that the following information are included:

5.1.6.1 Patient's name, age, medical record number (MRN) and order number.

5.1.6.2 Test priority (STAT OR ROUTINE).

5.1.6.3 Ordering physician (name, signature and stamp).

5.1.6.4 Patient's location.

5.1.6.5 Type of the needed test.

5.1.6.6 Clinical diagnosis.

In some circumstances, test ordering or samples may be accepted without registration on the computer system, such samples are given priority over other samples if it is STAT

5.2 Specimen Procurement

5.2.1 Principles:

5.2.1.1 To outline the sample requirement for laboratory procedures, the collection, storage, processing and disposal of these samples.

5.2.1.2 To provide list of sample requirement for laboratory procedures.

5.2.1.3 To provide protocol for collection.

5.2.1.4 To provide guidelines for the treatment of the laboratory samples from the time it is collected to the time of disposal.

5.2.1.5 To provide criteria for the rejection of a laboratory sample.

5.2.2 Procedure:

Patient identification: Verbally ask the patient his/her full name. the following data should been included in all request:

5.2.2.1 Patient's name – sex

5.2.2.2 Patient's Medical Complex number – age

5.2.2.3 Requesting physician

5.2.2.4 Analysis requested

5.2.2.5 Patient's diagnosis

5.2.2.6 Time and Date of request

5.2.2.7 Verify name and Medical Complex Medical Record Number (MRN), (file No) by asking the Patient's name and Date of birth (age)

Note: All in patients are required to wear identification bracelets.

5.2.3 Patient preparation

5.2.3.1 Health care provider must wash hands properly before and after any patient contact, and wear gloves (vinyl or powder – free, blue nitrile) when performing any vein puncture.

5.2.3.2 Be sure about the patient status according to the test in the request for example if patient fasting or not, fasting hours, as in the lipid profile or for sugar post prandial need to be two hours after meal, medicine that patient using to avoid abnormalities in the result, etc.

5.2.4 Specimen Labeling

5.2.4.1 Verify that each requisition / computer or hand label / addressograph label matches the identification band/request.

5.2.4.2 Always immediately label the specimen before leaving the patient at the bedside or other drawing area.

5.2.4.2.1 Never pre-label blood specimen tubes before drawing blood.

5.2.4.2.2 Never give the specimen to someone else to label, the person collecting the blood must label the specimen

5.2.4.3 Verify again that the information on the labeled specimen matches the identification Band / Request.

5.3 Required Specimen Label Information:

5.3.1 Patient's name

5.3.2 Medical record or file number

5.3.3 Specimen number for computer – ordered tests (contains data & accession numbers) this data must match the date of specimen collection for multiple draws to ensure that the correct specimen label is attached to the appropriate tube.

5.3.4 Date (already on the computer label)

5.3.5 Time of collection

5.4 Blood Collection Requirements:

Blood is collected for testing in two forms:

5.4.1 Without anticoagulant – collected and permitted to clot or separates (Serum)

5.4.2 With anticoagulant – used to prevent clotting or separates (Plasma)

5.4.2.1 Specimens collected with anticoagulant require gentle mixing by inverting the tube 3– 4 times. Do not shake the tube.

5.4.2.1.1 Types of Anticoagulant

5.4.2.1.1.1 sodium citrate

5.4.2.1.1.2 Heparin

5.4.2.1.1.3 EDTA

5.4.2.1.2 Puncture Blood System.

5.4.2.1.2.1 Artery

5.4.2.1.2.2 Vein.

5.5 Method of Blood Collection

5.5.1 Identify the patient per policy and procedure.

5.5.2 Before sample to be extracted, the laboratory technician should ask the patient or relative about history of blood disease as hemophilia or taking any medication decrease the blood viscosity.

5.5.3 Put on non-sterile gloves.

5.5.4 Apply tourniquet.

5.5.5 Select a suitable site for venipuncture. Prepare the site by scrubbing with 70% alcohol (Isopropanol). Dry with sterile gauze.

5.5.6 Cleanly puncture the skin.

5.5.7 Loosen the tourniquet and apply gentle suction.

5.5.8 Release the tourniquet.

5.5.9 Gently invert the tubes 3-4 times to assure mixing if anticoagulant treated tubes were used.

5.5.10 Write patient identification data on all tubes (as mentioned before).

5.5.11 Aftercare:

Apply pressure to the vein-puncture site and elevate the arm until bleeding stops. If bleeding persists, apply a pressure dressing to the site.

Limitations:

5.5.12 Vein-puncture is technically difficult in obese patients, infants, children and patients with collapsed veins, such as those in shock. In such cases a butterfly of a syringe is used for easier extraction. Hemolysis may occur as a result of excessive suction during collection, violent mixing of specimen or vigorous transfer of the specimen from syringe to tube.

5.5.13 Discard used materials in appropriate waste container in trash and needle disposition box. NEVER RECAP THE NEEDLE, dispose it into sharps container.

5.5.14 Put off your gloves and discard them in appropriate trash area.

5.5.15 Wash your hands before leaving the room.

DIAGRAM PROTOCOL FOR BLOOD COLLECTION

Top-colour Tube	Anticoagulant	Uses	Principals
Pink or violet	EDTA (Ethylene-Diamine Tetra Acetic Acid)	CBC, blood group, reticulocyte and Glycated Hb	Chelating of calcium molecules from blood and prevent clotting
Red OR Yellow	NONE	Serology, Hormones and chemistry.	Enhance formation of blood clotting
Blue	Sodium Citrate	Coagulation Test e.g. PT, PTT, D-Dimer	Removing Ca ions from the blood

5.6 Complications and Special Consideration in Blood Collection:

5.6.1 Fainting (Syncope)

Many patients become dizzy and faint at the thought or sight of blood. It is important to be aware of the patient's condition throughout the collection procedure. If a seated patient feels faint, the needled should be removed and the head lowered between the legs and the patients should breathe deeply. If possible, the phlebotomist should ask for help and move the patient to a lying position.

5.6.2 Hematomas

When the area around the puncture site starts to swell, this usually indicates that blood is leaking into the tissues causing a hematoma. This can happen when the needle when has gone completely through the vein, the bevel opening us partially in the veil, or when not enough pressure is applied to the site after puncture. If immediately and pressure applied to the area.

5.6.3 Petechia

These are small red spots appearing on a patient's skin, which indicate that minute amounts of blood have escaped into skin epithelium. This may be a result of coagulation problem, and should caution the phlebotomist that the patient's puncture site may bleed excessively.

5.6.4 Edema

Some patients develop and abnormal accumulation of fluid in the intercellular spaces of the body. The phlebotomist should avoid collecting blood from these sites because veins are difficult to palpate and the specimen may be contaminated with fluid.

5.6.5 Obesity

Obese patients generally have veins that are difficult to visualize and palpate. If the vein is missed, the phlebotomist must be careful not to probe excessively with needle because it causes rupture if RBCs, increased concentration of intracellular contents, and release some tissue clotting factors.

5.6.6 Damage, Scleroses, or Occluded Veins

Veins, which are obstructed or occluded, do not allow blood to flow through. Patients' veins that have been repeatedly punctured often become scarred and

feel very hard when palpated. Blood is not easily collected from these sites; therefore, they should be avoided.

5.6.7 Hemolysis

When RBCs are hemolysed, hemoglobin is released and serum (normally straw colored) becomes tinged with pink or red. If a specimen is glossy hemolysed, the serum appears very dark red. Hemolysis can be caused by improper phlebotomy techniques such as using a needle that is too small, pulling a syringe plunger back too fast, expelling the blood vigorously into a tube, and shaking or mixing tubes vigorously. These problems can easily be prevented by appropriate handling. Hemolysis may also be the result of

Physiologic abnormalities the phlebotomist should make a note on the requisition from when he or she notices that a specimen is hemolysed.

5.6.8 Collapsed Veins

If a syringe plunger is withdrawn too quickly during vein-puncture, it may cause vein to collapse. This is especially true when collecting blood from the smaller vein.

5.6.9 Allergies

Some patients are allergic to iodine or other solution used to disinfect a site. If a patient indicates that he or she is allergic to a solution, all efforts should be made to use an alternative method.

5.6.10 Thrombosis

Thrombi are solid masses derived from blood constituents that reside in the blood vessels. A thrombus may partially or fully occlude a vein (or artery) making vein-puncture more difficult.

5.6.11 Burned or Scarred Areas

Areas that have been burned or scarred should be avoided during phlebotomy. Burned areas are very sensitive and susceptible to infection. Veins under scarred areas are difficult to palpate.

5.6.12 Sample Rejection

The Clinical Laboratory Specimen has a procedure in rejection of samples as follow:

5.6.12.1 Before any specimen is rejected, the phlebotomist or outpatient practice is contacted. Every effort will be made to resolve problems and

testing may proceed if acceptable identifying information or explanations are received. (Attachment No.1)

5.6.12.2 All highly risk samples (CSF) should not reject, the physician should be informed about the problem to correct as unlabeled specimen, correction on the request or specimen is the responsibility of the sending ward and OVR should be written by the laboratory.

5.6.12.3 When a specimen is rejected for any of the reason listed below, a new specimen will be collected by the Clinical Laboratory staff when applicable, noting the time/date of the new collection on the requisition.

5.6.12.4 When the physician or nursing personnel is responsible for the collection (such as body fluid and urine determinations) the patient care unit will be notified by phone, giving the reason for the rejection and a new specimen will be requested. The patient's requisition will also be noted giving the reason for rejection along with the date/time to whom and by whom the notification was made. This requisition will be charted and a new requisition must accompany the new specimen.

5.6.12.5 In the event the physician still requires the procedure to be performed on the unsatisfactory specimen, the unsatisfactory condition of the specimen will be noted on the patient's requisition.

5.7 The following guidelines listed below will assist Laboratory personnel to recognize improper or inadequate specimens that offer the risk of inaccurate results. “Rejection Criteria"

5.7.1 Improperly labeled or unlabeled specimens.

5.7.2 Specimen for which the quantity is not sufficient for processing (QNS)

5.7.3 Leaking specimen or specimen not received in collection container recommended by the department by the appropriate department manual.

5.7.4 Specimen received without orders or requisition.

5.7.5 Specimen received where the specimen and the requisition are incompatible.

5.7.6 Hemolyzed blood specimen depending on the particular analysis ordered.

5.7.7 Specimens not transported/held in the proper state of nature.

5.7.8 Missing name of Physician.

5.7.9 Clotted samples in the tubes which contain anticoagulant.

5.7.10 Inadequately labeled specimens:

5.7.10.1 Unlabeled: any specimen is unlabeled, if the specimen container does not have a label affixed to it with the patient's medical record number, name and order number when applicable. It is not acceptable to label a secondary container holding the specimen.

5.7.10.2 Mislabeled: A specimen is mislabeled if any of its patient's identification information, differs from the patient's identification on the requisition associated with it.

5.7.10.3 Improperly / incompletely labeled: The lack of required information on label will necessitates holding of the specimen until the deficiency is corrected. The laboratory will not correct improperly labeled specimens.

5.7.10.4 Inadequate Requisitions: All information on the hard copy requisitions must be complete. Incomplete requisitions associated with specimens will be held until the deficiency is corrected. Manual requisitions may be returned to ward or clinic for correction.

5.7.11 Unsatisfactory Specimens

A specimen is unsatisfactory if it is collected, handled or transported in a way which compromises test's constituents. Unsatisfactory specimen includes:

5.7.11.1 Wrong tube or container.

5.7.11.2 Improper handling with respect to temperature, timing or storage.

5.7.11.3 Insufficient quantity.

5.7.11.4 Unavailable or inappropriate test.

5.7.12 Leaking specimens

Will be rejected, unless the specimen cannot be replaced (i.e. tissue, body fluids). Specimens with insufficient quantities cannot be processed, and be labeled as (QNS) Quantity Not Sufficient.

5.7.13 Specimen Posing Hazardous Handling Conditions

Any Specimen submitted in a manner which could create a health or safety hazard to laboratory personnel is considered unacceptable. These include leaking specimens, improper, broken or unproved specimen container, or specimen submitted in syringes with needles.

5.7.14 Specimen which cannot be Re-obtained

(CSF, tissue, timed specimen), will be processed under a temporary provision which requires the collector to come to the laboratory and fill out the

appropriate form acknowledging responsibility and verifying the identity of the specimen. This procedure must be completed before the results will be posted.

5.7.15 Rejection of Stat Sample:

The staff nurse or the responsible physician will be called (through the telephone if contact number is printed on the request) to submit another samples, if the previous ones does not meet the acceptance criteria. Routine samples will be rejected through the computer only.

The section technician or supervisor if possible is responsible to inform Physician/Nursing Station/from which the specimen originated.

Determine whether or not the specimen can be tested if the problem can be solved or if recollection must occur.

5.7.15.1 If a compromised specimen is tested, just in case of high risk samples as CSF a comment and probable effect must be noted on. The test reports the following text comments are available. If the probable problem in the specimen will affect the test result, the test should not be done and cancelled in the computer system with writing the cause of rejection.

5.7.15.2 If a new specimen is obtained, this shall be noted on the report. The order from the first specimen should be cancelled.

5.7.16 Occurrence Variance Report (OVR):

Must be initiated. This form is used to document rejection of unlabeled or mislabeled specimens and non-accepted samples see this form for the list of specimens that are included. This form must be used immediately after rejection of the order number on the computer system. At the end of each month the statistical analysis is recommended to detect the source of problems regarding to the department and to the cause of rejection. This follow up procedure will enable the Laboratory Quality Management program to highlight areas within the Medical Complex that are experiencing problems with specimen submission so that education and/or problem solving activities can be initiated.

6. Responsibilities

6.1 Laboratory staff.

7. Reference

7.1 NCCLS. Evaluation guidelines for transportation of specimen

8. Attachments

8.1 None

9. Approved

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