مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre
Gen. Org. مؤسسة عامة

Department of Pathology and Laboratory Medicine

Specimen Collection Section

SPECIMEN COLLECTION MANUAL

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PREFACE

The Specimen Collection Manual is provided to ensure correct, error-free and safe blood collection. By understanding and following this manual, you will be adhering to best practices as per King Faisal Specialist Hospital and Research Centre (KFSH&RC) policies and accreditations requirements.

Please share this **MANUAL** with your staff, be informed that the Laboratory Service Guide is available in info gate. The Laboratory Service Guide will provide you all the test's information needed (i.e. test name, test information, TAT, Sample information, rejection criteria, reference ranges, frequency and analytical section in-charge).

For any queries related to specimen collections, you may contact Ms. Asma Alsomali, Supervisor of Specimen Collection Section, Department of Pathology and Laboratory Medicine:

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Best regards,

21 JUN 2021

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SPECIMEN COLLECTION MANUAL			SCP-SC-00
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SPECIMEN COLLECTION IPP

SCP- SC-00	TABLE OF CONTENTS
SCP- SC-01	SPECIMEN COLLECTION - GENERAL POLICY & PROCEDURE
SCP- SC-03	SPECIMEN COLLECTIONS - OUTPATIENT SERVICES
SCP- SC-04	SPECIMEN COLLECTION - INPATIENT SERVICES
SCP- SC-05	COLLECTION OF 24 HOUR AND MIDSTREAM URINE SPECIMEN
SCP- SC-07	PATIENT IDENTIFICATION & SPECIMEN LABELING
SCP- SC-08	ISOLATION COLLECTION TECHNIQUES
SCP- SC-09	UNABLE TO OBTAIN BLOOD SPECIMEN
SCP- SC-10	BLOOD CULTURE COLLECTION PROCEDURE
SCP- SC-11	BLOOD COLLECTIONS FROM IV LINES, FISTULA, & MASTECTOMY
SCP- SC-12	PROTOCOL FOR TRANSPORT & DELIVERY OF SPECIMENS
SCP -SC-13	ORAL GLUCOSE TOLERANCE TEST
SCP- SC-18	COLLECTION OF "GROUP CONFIRM" SPECIMENS
SCP- SC-19	DOMICILIARY VISIT BY A PHLEBOTOMIST
SCP- SC-20	SAFETY PROCEDURE FOR COLLECTION STATIONS
SCP- SC-21	EDUCATION AND TRAINING POLICY
SCP- SC-22	PATIENT REJECTION CRITERIA

TITLE / DESCRIPTION			INDEX NUMBER:
SPECIMEN COLLECTION – GENERAL POLICY			**SCP-SC-01**
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I. PURPOSE

To provide a uniform approach for the collection of blood specimens taking into consideration the safety and comfort of the patient, Phlebotomist and to emphasize the importance of proper blood collection techniques.

II. POLICIES

All specimens will be collected by trained Phlebotomists in a uniform general procedure according to the College of American Pathologist standards to insure the comfort and safety of the patient as well as proper and appropriate specimen collection relative to the requirements of the test/service procedure. The Phlebotomist is the only direct contact that the patient may have with the Laboratory. Thus, the Phlebotomist is the Laboratory's "public relations" representative.

1. The Phlebotomist must first introduce himself/herself to the patient and explain the phlebotomy procedure in a professional manner.
2. The Phlebotomist must positively identify the patient before collecting blood.
3. The Phlebotomist must obtain the blood specimens as skillfully as possible.
4. The Phlebotomist must collect enough blood to perform the desired tests.
5. The Phlebotomist must collect the correct samples for the test(s) requested and as reflected on Integrated Clinical Information System (ICIS) collection label.
6. The Phlebotomist is responsible to collect the blood sample with as little injury and discomfort to the patient and to ensure the patient safety and his/her own safety.
7. The Phlebotomist's behavior must express confidence, cooperation, and an overall professional attitude that enhances laboratory-patient, nursing and medical staff relationships.

III. DEFINITIONS

1. Collection Priorities:

A. STAT (S):

This priority specifies the specimen must be collected immediately. All other work is delayed while STAT specimens are collected. For this reason, the STAT priority should be ordered in critical clinical situations only. The turnaround time estimate for STAT specimens is an hour from time of specimen receipt in the laboratory. The label for STAT collection will be printed by the lab technician if it is ordered to be collected by lab. It will print at the ordering location if it is ordered to be collected by nurse. It is the responsibility of the nurse or physician to page or call the

phlebotomist and inform him/her of the STAT request. STAT orders are inappropriate for outpatient's orders.

B. TIMED (T):

Specifies the specimen must be collected at the SPECIFIC TIME. When ordered, the label for TIMED collection will be printed by the lab if it is ordered to be collected by lab. It will print at the ordering location if it is ordered to be collected by nurse. For the inpatients, it's the responsibility of the nurse or physician to page or call the phlebotomist and inform him/her about the TIMED collection. Timed Specimens are usually ordered in two different ways:

1) A single blood specimen ordered to be collected at specific time e.g. 2hpp Glucose, and drug levels.
2) Multiple blood specimens to be collected at several specific times e.g. Cortisol Profile and Glucose Profile. Check specific test requirement in ICIS. Multiple collection time have to under different accession number

C. ROUTINE (R):

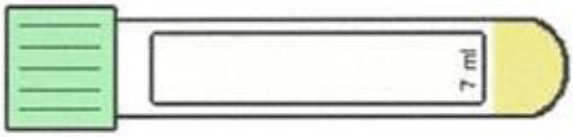
This priority specifies that the specimen is routine and can be collected with the next routine collection round.

2. Evacuated Blood Collection Tubes:

These are evacuated test tubes manufactured with known draw volume/anticoagulant. The Stoppers of these tubes are colored in order to distinguish between them. Listed below are the different tube types and the corresponding anticoagulant.

Red Top	
Additive	Clot activator
Mode of Action	Blood clots, and the serum is separated by centrifugation
Uses	Chemistries, Immunology and Serology
Gold top (SST) (Gel)	

Additive	Clot activator
Mode of Action	Blood clots, and the serum is separated by centrifugation
Uses	Chemistries
Purple Top	
Additive	EDTA
Mode of Action	Forms calcium salts to remove calcium
Uses	Hematology (CBC) and Blood Bank (Crossmatch); invert 8 times to prevent clotting and platelet clumping
Light Blue Top	
Additive	Sodium citrate
Mode of Action	Forms calcium salts to remove calcium
Uses	Coagulation tests (protime and prothrombin time), **full draw** required
Green Top	
Additive	Sodium heparin
Mode of Action	Inactivates thrombin and thromboplastin
Uses	Chromosome analysis, Cellular immunology ,flow cytometry

Dark Blue Top	
Additive	EDTA
Mode of Action	Tube is designed to contain no contaminating metals
Uses	Trace element (zinc, copper, lead, mercury) in toxicology
Light Gray Top	
Additive	Sodium fluoride and potassium oxalate
Mode of Action	Antiglycolytic agent preserves glucose up to 5 days
Uses	Glucoses, requires **full draw** (may cause hemolysis if short draw)
Yellow Top	
Additive	ACD (acid-citrate-dextrose)
Mode of Action	Complement inactivation
Uses	HLA tissue typing, DNA studies
Light Green Top (PST)	
Additive	Plasma Separating Tube (PST) with Lithium heparin
Mode of Action	Anticoagulates with lithium heparin; Plasma is separated with PST gel at the bottom of the tube

Uses	Chemistries
Orange Top tube Rapid serum tube (RST)	
Additive	Thrombin-based clot activator with gel for serum separation
Mode of Action	Blood clots, and the serum is separated by centrifugation
Uses	For stat serum determinations in chemistry. Tube inversions ensure mixing of clot activator with blood. Blood clotting time: 5 minutes

Please note that evacuated blood tubes with lavender, green, blue, or gray tops contain anticoagulants. These types of tubes must be filled at least ¾ or more with blood, or the ratio of anticoagulant to blood will be too high and test results maybe affected. Blue top tubes containing a liquid anticoagulant must be filled to the level determined by the tube vacuum. Allow the blood to fill the tube to its own level, usually approximately 1 cm from tube stopper. If the tube is inadequately filled, the liquid anticoagulant will cause an improper dilution of the blood specimen. The specimen will be rejected.

3. Order of draw:

When multiple evacuated tubes are used, the order of draw is important for obtaining accurate results, as there is a risk contaminating a subsequent tube with the additive from the tube just collected. **Please observe the following order of draw:**

- **A.** Blood culture bottles
- **B.** Citrate (blue top for coagulation study)
- **C.** Red or Gold top tubes(SST) or Orange top (RST) tubes or Light Green top (PST)
- **D.** Heparin (green top tubes)
- **E.** EDTA (Lavender top)
- **F.** Grey (Na F/Na EDTA) tubes
- **G.** Dark Blue top tube (EDTA)
- **H.** Yellow top tube (ACD)

Please note that evacuated tubes and other phlebotomy supplies should not be used beyond their expiry date.

4. **Serum:**
   Blood is collected in a tube without anticoagulant or with clot activator and permitted to Clot, **Serum** is the separated liquid from centrifuged clotted blood.

5. **Plasma:**
   Blood is collected in a tube with anticoagulant, **Plasma** Is the separated liquid from centrifuged un-clotted blood.

6. **Whole blood:**
   Blood is collected in a tube with anticoagulant and analyzed as it is without Centrifugation.

IV. EQUIPMENT

The following are needed for routine venipuncture:

1. **Evacuated Collection Tubes:**
   The tubes are designed to fill with a predetermined volume of blood by vacuum. The rubber stoppers are color coded according to the additive that the tube contains. Various sizes are available. Blood should **NEVER** be poured from one tube to another since the tubes can have different additives or coatings (see illustrations above).

2. **Needles:**
   The gauge number indicates the bore size: the larger the gauge number, the smaller the needle bore. Needles are available for evacuated systems and for use with a syringe, single draw or butterfly system.

3. **Holder/Adapter:**
   Use with the evacuated collection system. Also available as blood transfer devices when using a syringe and a butterfly combination

4. **Tourniquet:**
   Replace frequently or when contaminated.

5. **Alcohol Wipes:**
   70% isopropyl alcohol.

6. **1%Chlorhexidine Gluconate swab sticks:** Used if blood culture is to be drawn.

7. **Gauze sponges:**

For application on the site from which the needle is withdrawn.

8. **Adhesive bandages / tape:**
   Protects the venipuncture site after collection.

9. **Needle disposal unit:**
   Needles should **NEVER** be broken, bent, or recapped. Needles should be placed in a proper disposal unit **IMMEDIATELY** after their use.

10. **Gloves (non latex):**
    Worn to protect the patient and the phlebotomist.

11. **Syringes:**
    May be used in place of the evacuated collection tube for special circumstances.

V. PROCEDURE

1. **Patient Preparation:**

   Some tests require patient preparation before collection. Refer to specific tests requirements and preparation instructions listed in database of collection requirements in ICIS. Tests that require special instructions to patients include:

   A. General tests that require an overnight fast should be scheduled for early a.m. collection, i.e., fasting blood sugar, triglycerides, etc. Patients may drink water if needed. Generally, no medication is possible, nor is smoking allowed.

   B. Tolerance Tests - Patients should be instructed on the nature and duration of the test.
   Such tests include;

   - Oral Glucose Tolerance Test
   - Lactose Tolerance Test
   - D-Xylose Tolerance Test

   C. Tests, on specimens other than blood (urine, stool …etc) that require special techniques for specimen collection, should be fully explained to patient (see special test collection procedure or patient information handout)

2. **Patient preparation factors:**

A. Therapeutic Drug Monitoring: different pharmacologic agents have patterns of administration, body distribution, metabolism, and elimination that affect the drug concentration as measured in the blood. Many drugs will have "peak" and "trough" levels that vary according to dosage levels and intervals. Check for timing instructions for drawing the appropriate samples.

B. Effects of Exercise: Muscular activity has both transient and longer lasting effects. The creatine kinase (CK), aspartate aminotransferase (AST), lactate dehydrogenase (LDH), and platelet count may increase.

C. Stress: May cause transient elevation in white blood cells (WBC's) and elevated adrenal hormone values (cortisol and catecholamines). Anxiety that results in hyperventilation may cause acid-base imbalances, and increased lactate.

D. Diurnal Rhythms: Diurnal rhythms are body fluid and analyte fluctuations during the day. For example, serum cortisol levels are highest in early morning but are decreased in the afternoon. Serum iron levels tend to drop during the day. You must check the timing of these variations for the desired collection point.

E. Posture: Postural changes (supine to sitting etc.) are known to vary lab results of some analytes. Certain larger molecules are not filterable into the tissue; therefore, they are more concentrated in the blood. Enzymes, proteins, lipids, iron, and calcium are significantly increased with changes in position.

F. Other Factors: Age, gender, and pregnancy have an influence on laboratory testing. Normal reference ranges are often noted according to age.

3. Blood Collection Tray

The tray must be kept clean and orderly at all times and stocked with sample amounts of supplies, i.e., alcohol swabs, sterile cotton balls or sponges, needles, evacuated tubes, tube holders, lancets, micro collection apparatus, etc. A sharp disposal/detipper unit may also be on the tray.

A. New sterile sealed needle should be used with each Venipuncture.

B. After unsheathing, the needle must not touch anything until it is used in the Venipuncture. If it does, it must be discarded, and a new needle used. Needles are not to be unsheathed until ready for Venipuncture.

C. If a second Venipuncture attempt is required to secure the blood specimen, a second needle must be used with the blood collection apparatus.

D. Alcohol pads are generally used to clean and disinfect the site of puncture. Alcohol pads may not be used in the cases of blood alcohol determinations (use alcohol free disinfectant) or other special procedures.

E. The request form (collection label) must be carefully checked and all information and orders must be clearly understood.

** Refer to collection database (DB) in Cerner Laboratory Computer System (ICIS) and the Laboratory service guide for nature and amounts of specimen to be collected and other collection information. Specific container requirements and special transport instructions are also printed on each LIS specimen collection label. **

4. Approaching the Patient:

A. Approach the patient with a friendly, confident, and professional manner.

B. Identify yourself, tell the patient that you have come to draw blood for some laboratory tests ordered by his or her physician.

C. Try to reassure the patient to minimize apprehension.

D. If the patient is uncooperative, restate your purpose calmly in a professional manner. Never engage in an argument or debate with the patient. If the patient refuses, or is uncooperative, consult with the patient's Nurse.

E. Sometimes, a sign is placed on the patient room door for specific collection instruction. Phlebotomists have to follow these signs instructions carefully or consult with the nurse in charge if in doubt

F. Patient identification (see: SCP-SC-07)

- Verbally ask the patient his/her full name and verify it with the name on the collection label and/or test requisition form.
- Verify name and medical record number on the patient's wristband with those on test requisition or computer labels

All Inpatients and Emergency Room patients are required to wear identification bracelets

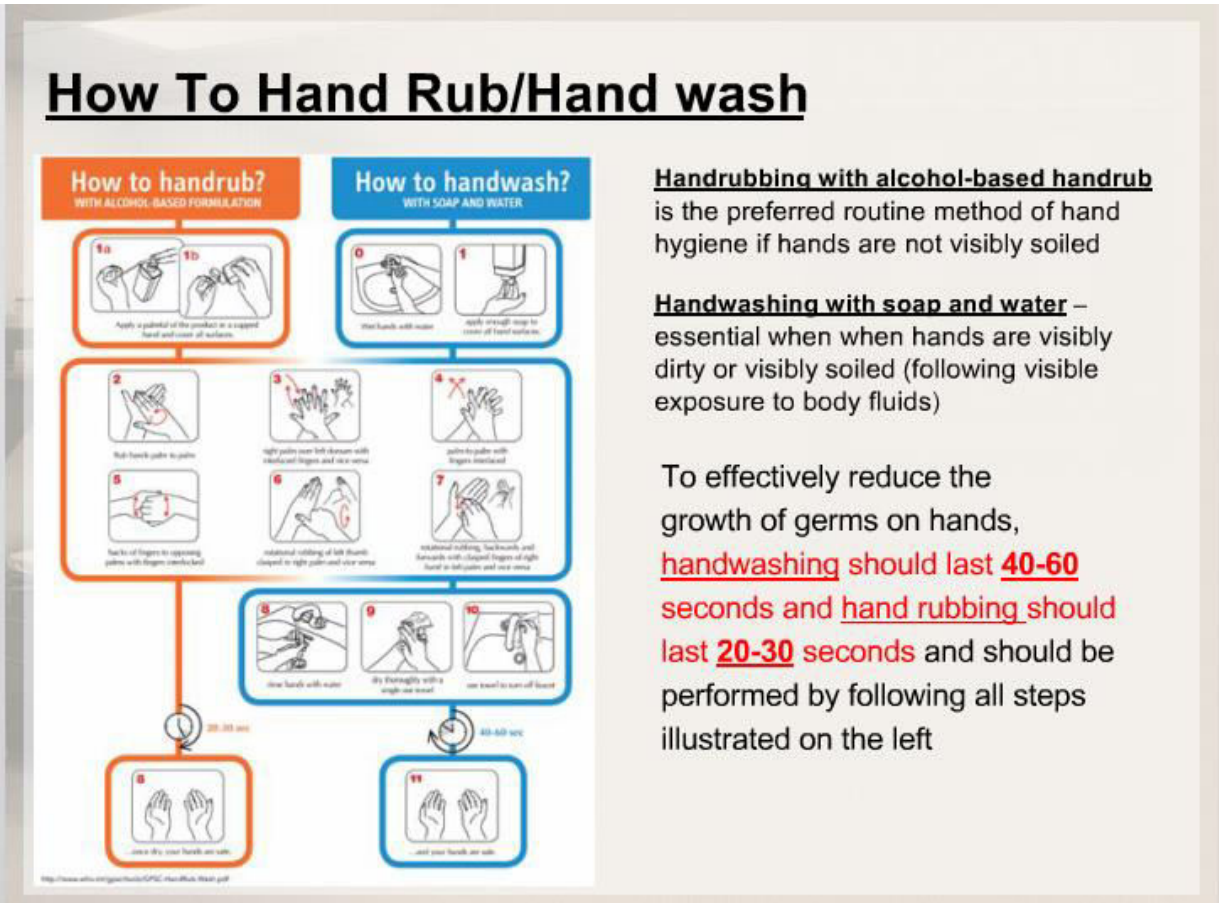
**** Do not proceed with blood collection without wrist band identification ****

Oncology Clinic and Radiation Therapy patients with Blood Bank requisitions must also wear identification bracelets.

G. Verify the patient's condition. Fasting, dietary restrictions, medications, timing, and medical treatment are all of concern and should be noted in the system (ICIS).

The Venipuncture:

PHLEBOTOMISTS MUST WASH HANDS WITH SOAP AND WATER OR PERFORM HAND HYGIENE BEFORE AND AFTER PATIENT CONTACT AND WEAR GLOVES WHEN PERFORMING VENIPUNCTURE. (Only non-latex gloves should be used)



A. Vein Selection

1) Position the patient properly so the vein will be readily accessible and patient and phlebotomist are in a comfortable working position. The patient should be reclining or sitting.

2) Select the proper vein for venipuncture, place tourniquet between the elbow and the shoulder with enough tension to compress the vein but not the artery.

Although the larger and fuller median cubital and cephalic veins of the arm are used most frequently, the basilic vein on the dorsum of the arm or dorsal hand veins are also acceptable for venipuncture. Foot veins are a last resort because of the higher probability of complications.

Certain areas are to be avoided when choosing a site:

1) Extensive scars from burns and surgery - it is difficult to puncture the scar tissue and obtain a specimen.

2) Hematoma - may cause erroneous test results. If another site is not available, collect the specimen distal to the hematoma.

3) A vein which is used repeatedly for venipuncture and injections may be thrombosed. It will feel cord-like and should not be used.

4) Difficult or small veins may be easier to find after massaging the venipuncture site; examine the other arm if necessary.

Palpate the vein to be sure the vein is not thrombosed or that it is not an artery. Release tourniquet after palpating vein.

**** Laboratory phlebotomists are not allowed or trained to perform arterial sticks ****

B. Performing the Venipuncture

1) Position the patient. The patient should sit in a chair, lie down or sit up in bed. Hyperextend the patient's arm.

2) Apply the tourniquet 3-4 inches above the selected puncture site. Do not place too tightly or leave on more than 2 minutes.

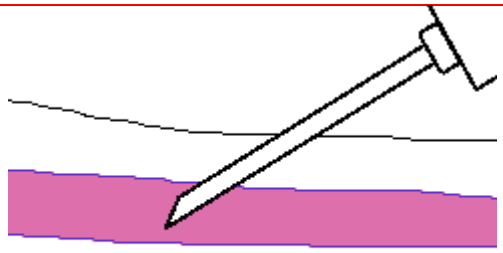
3) The patient should make a fist without pumping the hand.

4) Select the venipuncture site.

5) Prepare the patient's arm using an alcohol prep. Cleanse in a circular fashion, beginning at the site and working outward. Allow to air dry.

6) Grasp the patient's arm firmly using your thumb to draw the skin taut and anchor the vein. The needle should form a 15 to 30-degree angle with the

surface of the arm. Swiftly insert the needle through the skin and into the lumen of the vein. Avoid trauma and excessive probing.



If unsuccessful in the first attempt

- Release the tourniquet and give the patient and yourself a rest.
- Reapply the tourniquet preferably to the other arm and look for another vein and attempt again.

7) When the last tube to be drawn is filling, remove the tourniquet.

8) Remove the needle from the patient's arm using a swift backward motion.

9) **Activate needle safety feature.**

10) Press down on the gauze once the needle is out of the arm, applying adequate pressure to avoid formation of a hematoma.

11) Pressure should be applied over the venipuncture site with a sterile cotton swab. Instruct the patient to keep his arm in extended position and hold pressure over the venipuncture site. If patient unable to do so, the phlebotomist should apply pressure as long as feasible.

12) Inspect the venipuncture wound. If bleeding has stopped, apply bandage. If bleeding still continues, ask unit nurse for help. Do not leave patient until situation is under control

13) Dispose of contaminated materials/supplies in designated containers.

****** NEVER RECAP NEEDLES ******

(If necessary, use one hand scooping technique)

**** Dispose needles, syringes & butterflies into sharps container ****

Always use blood transfer device when transferring blood from a syringe to the tubes

14) Mix and label all appropriate tubes at the patient bedside.

15) Deliver specimens promptly to the laboratory.

16) Take off your gloves and discard them in appropriate trash area.

17) Wash your hands or clean hands with alcohol based rub before leaving the room

C. For Blood Culture Sterile Collection Technique
Refer to SCP-SC-10, Blood Culture Technique.

D. If Unable to Collect Blood Specimen Refer to SCP-SC-09 for detailed procedure

5. Safety and Infection Control:

Because of contacts with sick patients and their specimens, it is important to follow safety and infection control procedures.

A. Protect Yourself

1) Practice universal precautions:

- Wear gloves when handling blood/body fluids.
- Change gloves after each patient or when contaminated.
- Perform hand hygiene frequently.
- Dispose of items in appropriate containers.

2) Dispose of needles immediately upon removal from the patient's vein. Do not bend, break, recap, or reset needles to avoid accidental needle puncture or splashing of contents.

3) Clean up any blood spills with a disinfectant (Steris).

4) If you stick yourself with a contaminated needle:

- Remove your gloves and dispose of them properly.
- Wash the area well with soap under running water.
- Do not apply pressure or squeeze; dry and protect the site with an impermeable dressing.

- Record the patient's name and MRN number.
- Inform the lead tech or supervisor, incident thru Quality Information System (QIS) will be made and you should report to Family medicine clinic (regular hours) or to the EMS (after hours).

B. Protect The Patient

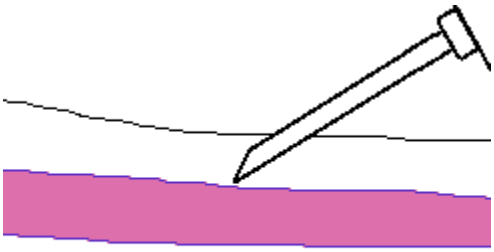
5) Place blood collection equipment away from patients, especially children and psychiatric patients.

6) Practice hygiene for the patient's protection. When wearing gloves, change them between each patient and wash your hands frequently. Always wear a clean lab coat or gown.
7) Always, maintain the patient privacy when collecting blood

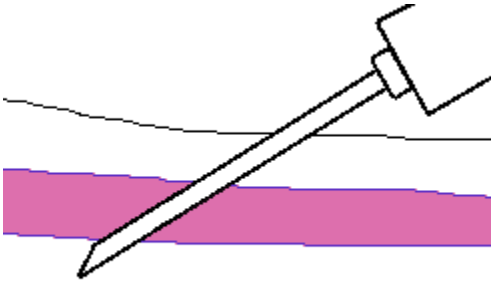
6. Troubleshooting Guidelines:

A. If an Incomplete Collection or No Blood is Obtained

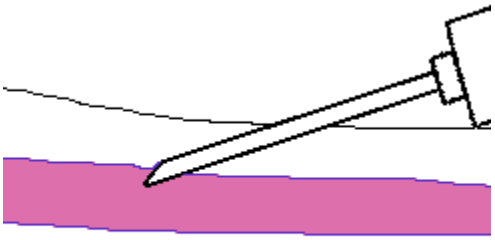
- Change the position of the needle. Move it forward (it may not be in the lumen)



- Move it backward (it may have penetrated too far).



- Adjust the angle (the bevel may be against the vein wall).



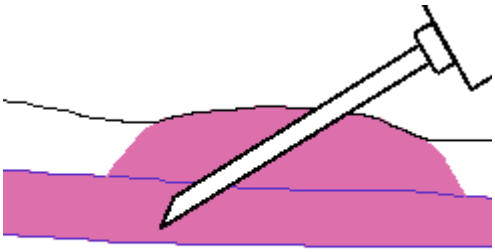
- Loosen the tourniquet. It may be obstructing blood flow.
- Try another tube. There may be no vacuum in the one being used.
- Re-anchor the vein. Veins sometimes roll away from the point of the needle and puncture site.

B. If Blood Stops Flowing Into The Tube

- The vein may have collapsed; re-secure the tourniquet to increase venous filling.
- If this is not successful, remove the needle, take care of the puncture site, and redraw.

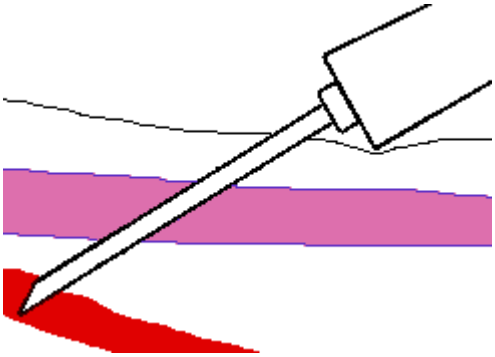
- The needle may have pulled out of the vein when switching tubes. Hold equipment firmly and place fingers against patient's arm, using the flange for leverage when withdrawing and inserting tubes.

C. Problems Other than an Incomplete Collection



- A hematoma forms under the skin adjacent to the puncture site - release the tourniquet immediately and withdraw the needle. Apply firm pressure.

Hematoma formation is a problem in older patients.



- The blood is bright red (arterial) rather than venous. Apply firm pressure for more than 5 minutes.

7. Obtaining Heelstick Specimens:

A. It is sometimes necessary to use the heel stick technique to obtain blood from babies and some pediatric patients.

B. Grasp the leg with the foot dorsiflexed in such a way that the thumb and fingers surround the heel, which protrudes through the circle made by them. When the heel is held in this way the pulp stands out and looks engorged with blood. Clean the heel with isopropyl alcohol, swabbing in a circular motion radiating in increasing circles out from the proposed point of puncture, and allow to dry. Then stab the heel with the lancet.

C. Pediatric lancets should be used. This should be done quickly and firmly 2 mm in depth on the side of the heel, never the bottom. The lancet should never be twisted or a cross -cut made. This is too damaging to tissue and will cause increased scar formation. These techniques increase swelling at the stab sites, thus making the next specimen twice as difficult to obtain and less accurate due to the increased interstitial fluid (see diagram attached).

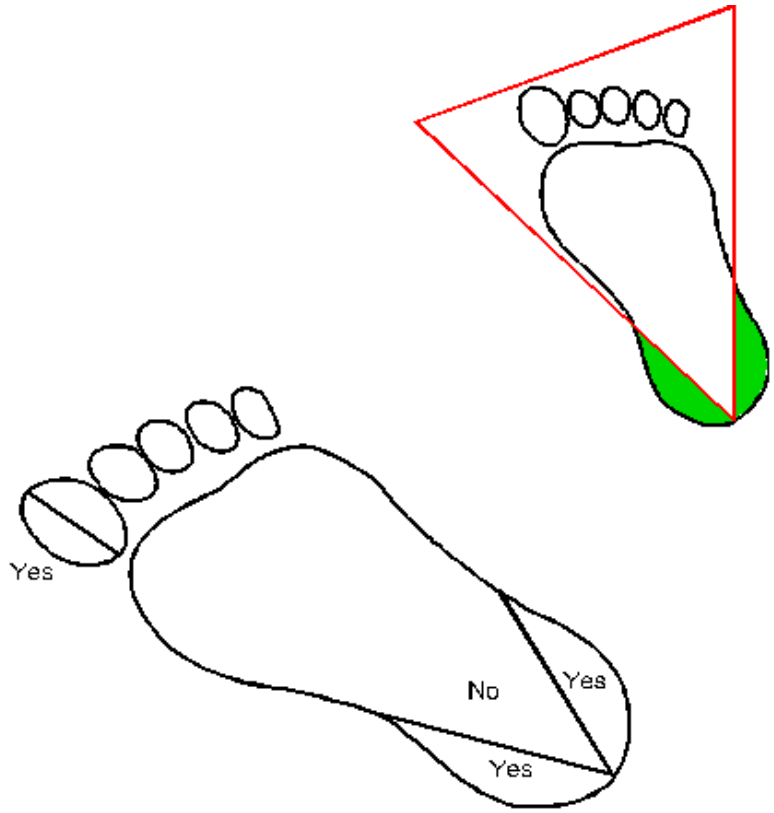
D. When the stab has been made, wipe away the first drop of blood as alcohol causes hemolysis. A small amount of Vaseline applied to the heel helps the blood to “bead” and it is easier to collect.

E. Gently milk the blood out of the heel by alternately squeezing and releasing with the four fingers around the calf. If the calf is not released, little blood will return to the heel.

F. It is to be assumed that all newborns laboratory tests are done on micro specimens. A list of amounts needed is available in the Laboratory Service Guide. (Also see attachment A of this IPP).

G. Band-Aids should not be used on neonates as they pull off skin when removed. Instead, fold a 2x2 lengthwise and wrap it around the foot. Secure with a small piece of surgical tape on the 2x2. Alternatively, a cotton ball may be used.

SKIN PUNCTURE



Recommendations for heel skin punctures in newborns

1. Perform punctures on the **most medial** or **most lateral** portion of the planter surface (outside of the lines on the diagram).
2. Puncture not deeper than **2.4 mm**.
3. **Do not** perform punctures on the posterior curvature of the heel.
4. **Do not** puncture through previous sites, which may be infected.

8. Identification of the Blood Specimen (See – SCP-SC-07) :

The blood specimen tube must be labeled with the patient's;

- Name

- Identification (Medical Records) number
- Date and time of collection and badge number of the phlebotomist/collector.
- Patient's location
- Specimen number (if applicable)
- Blood tubes should never be labeled until the venipuncture is complete.
- All tubes must be labeled at the time of collection and before leaving the patient.
- Deliver/dispatch specimen to the laboratory as required.

9. Collecting specimens that require special handling:

A. When collecting specimen that requires to be kept cold (on ice), the ice should be prepared in advance before collecting the specimen. The specimen must be placed on the ice immediately after collection and labeling. The specimen should immediately be sent to the lab for processing and analysis.

B. Some specimen needs to be kept warm (37°C i.e. Cryoglobin). These specimens should be placed in a dry bath maintained at 37°C soon after they are collected. They should also be transported on warm water until delivery to the analytical section.

C. Some specimen needs to be protected from light. These specimens should be covered with aluminum foil immediately after collection. The specimen tube should be labeled according to Specimen Labeling policy. In addition, small barcode label should be placed on the aluminum foil to ease handling.

10. Complications and Special Consideration in blood Collection:

Adverse reactions from blood collection can occur and personnel collection blood specimens must know what can occur and how best to manage the reactions. Here are some adverse reactions and what should be done to address these reactions.

A. Fainting (Syncope)

Many patients may experience seizure or 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 needle should be removed and the head lowered between the legs and the patient should breathe deeply. Phlebotomist should ask for help and move the patient to a lying position. Inpatient

nursing support can be called from the bedside buzzer unit. Outpatient collections areas can call for EMS support by dialing: Ext.: 7777.

B. 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 has gone completely through the vein, the bevel opening is partially in the vein, or when not enough pressure is applied to the site after puncture. If a hematoma begins to form, the tourniquet and needle should be removed immediately and pressure applied to the area.

C. Petechiae

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.

D. 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 or stick and the specimen may be contaminated with fluid.

E. 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 the needle because it causes rupture of RBCs, increased concentration of intracellular contents, and release some tissue clotting factors.

F. Damage, Sclerosed, 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.

G. Hemolysis

When RBCs are lysed, hemoglobin is released and serum (normally straw colored) becomes tinged with pink or red. If a specimen is grossly hemolyzed, 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 form when he or she notices that a specimen is hemolyzed.

H. Collapsed Veins

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

I. Allergies

Some patients are allergic to iodine or other solutions 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.

J. 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 venipuncture more difficult.

K. 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. (Reference: Phlebotomy Handbook, 2nd Ed., Garza Diana 1989 Appleton & Lange.

L. Pain

Since nerves are very close to veins and arteries, there is some risk a nerve maybe pierced by a needle during blood collection. The patient will complain

that he/she feels an electric shock going up his/her arm. Immediately remove the needle from the patient's arm and put pressure on the site. Ask the patient if the sensation has stopped. If so, try to redraw at another site if the patient is willing. Explain to the patient that a nerve was touched by the needle and that was what he/she felt. Ask them to let us know if they have any more numbness, weakness, or shocking sensations at the first site.

TITLE / DESCRIPTION			INDEX NUMBER:
SPECIMEN COLLECTION – OUTPATIENT SERVICE			**SCP-SC-03**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To provide a timely, efficient and reliable specimen collection system for the various Outpatient Clinics & Services.

II. POLICIES:

- Outpatient Specimen Collection Service is established to procure laboratory specimens in consideration of patient clinical requirements, location and appropriate time of collection.
- Outpatients must present an Integrated Clinical Information System (ICIS) reminder sheet or proper hospital identification card / badge in order to have encounters created or blood work(s) done. Otherwise, they will be referred back to their clinics.
- Patients with no orders in ICIS or cancelled orders will be referred back to the Clinic for new order if required.
- Future orders will be collected +/- 7 days from date they were ordered to be collected. Patients presenting outside this time-frame will be referred back to the Clinic for new orders if required.
- Patients presenting with an ICIS order slip for "Today/Now" on the wrong day will be referred to the Clinic for follow-up for new orders as these orders are cancelled by system if not collected on the day they are ordered.
- During ICIS downtime, follow ICIS downtime procedure, MCO-MD-DPL-01-002.
- If any delay is expected in serving the patients, this should immediately be communicated to the patients. (MCO-MC-ADM-01-029)

III. REFERENCES:

MCO-MD-DPL-01-013 MCO-MD-DPL-01-002

IV. SCOPE OF SERVICE:

Location	Type of Specimens Collected	Time/Day
Polyclinic	blood, urine,	0700H – 1630H Sunday to Wednesday
	stool, microbiology	0700H – 1530H Thursday
	specimens, etc.	
Outpatient	blood, urine, stool	0700H – 1700H Sunday to Wednesday
	other microbiology	0700H – 1600H Thursday
	specimens, etc.	

VIP Clinic	Same	0730H – 1700H Sunday to Wednesday
		0730H – 1600H Thursday
North Tower 3rd Floor	Same	0700H – 1700H Sunday to Wednesday
		0700H – 1600H Thursday
North Tower 4th & 5th Floor	Same	0700H – 1200H Sunday to Thursday
North Tower 6th Floor	Same	0700H – 1700H Sunday to Wednesday
		0700H – 1600H Thursday
KACO&LD L1	Same	0700H – 1700H Sunday to Wednesday
		0700H – 1600H Thursday
KACO&LD L7 & 8	Same	0700H – 1500H Sunday to Wednesday
		0700H – 1400H Thursday
Heart Centre	Same	0700H – 16:30H Sunday to Wednesday
		0700H – 1530H Thursday
Emergency	Blood	24-hour service

V. PROCEDURE:

Printing collection labels:

1. **Orders For Future Visit "NO":**

Labels are printed at the time of the patient visit:

- Check that the Collection Date on the ICIS if the order is today. If not for today, send the patient back to the clinic.
- If for today, click on the Collection Inquiry Icon in ICIS 
- Make sure the Template is Laboratory Collections.
- Click on the Patient tab
- Enter the MRN # of the patient and press Enter.
- Check the Patient information (Full Name/MRN # /Age/Gender) is correct. Click OK.
- Highlight the required orders.
- Make sure the printer name is correct and click on Labels and then on Print

2. **Order For Future Visit "YES":**

Create Lab Encounter:

- Make sure that the Collection Date on the ICIS is +/- 7 days. If outside +/- 7 days, send the patient back to the clinic.

- If within the time frame, click on the Conversation Launcher Icon to create an encounter.

- Lab Outpatient Visit Icon is highlighted. Press OK. 
- Enter the MRN # of the patient and press Enter.
- Check the Patient information (Full Name/MRN # /Age/Gender) is correct.
- Press the "Add Encounter" button.
- Select the Building, as appropriate (Outpatient, VIP, Family Medicine, KACO&LD, Heart Centre, North Tower, Emergency) from the drop down List
- Select the appropriate printer from the drop down list. Press OK.

3. Activate the laboratory orders:

Login to Power Chart. 

- Click on the patient search Icon
- Enter the MRN # of the patient and press Enter.
- Check the Patient information (Full Name/MRN # /Age/Gender) is correct.
- Click on the Active Lab Encounter and press OK.
- Click on Laboratory Staff and press OK.
- View the future orders to decide which orders you will activate: **Routine order**: +/- 7 days from displayed Collection date
- Highlight the required orders, Right click on the orders and select activate.
- Change the date if necessary. Click on the Orders to Sign Icon
- Click on Sign to sign orders. Orders status will change to ordered. Labels will auto print

OR

- Go to Pathnet and click on Collection Inquiry Icon. 
- Make sure the Template is Laboratory Collections.
- Click on the Patient tab, enter the MRN # of the patient and press enter.
- Check the Patient information (Full Name/MRN #/Age/Gender) is correct. Click OK.

- Highlight the orders to be printed.
- Make sure the printer name is correct, click on Labels and then on Print.

4. After the labels are printed:
proceed with the specimen collection following standard laboratory policies and procedures.
(SCP-SC-01).
For urine, stool and sputum, label the specimen container and give to the patient.

5. Microbiology specimens

Microbiology specimens (urine, stool, sputum, etc.) and clinical Biochemistry urines accession numbers are good for 6 days from the day orders are activated. These specimens should be delivered during that time frame or they will be cancelled.

TITLE / DESCRIPTION			INDEX NUMBER:
SPECIMEN COLLECTION – INPATIENT SERVICE			**SCP-SC-04**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To provide a timely, efficient and reliable system for collecting blood specimens for KFSH&RC inpatient services.

II. POLICIES

- Specimen Collection Service is established to procure laboratory specimens in consideration of patient clinical need, location and appropriate time of collection.
- Phlebotomist will collect all STAT / TIMED and routine inpatient orders entered to be collected by Lab in a timely manner.
- Phlebotomist will only collect orders for the same collection date accession numbers. Exception is (+/- 30min of midnight). Wrong date orders will be returned to the unit for re-entry under new number.
- Phlebotomist will not accept pre/post drug level orders under one accession number. Labels will be returned to unit for correction prior to draw.
- During ICIS downtime, follow ICIS downtime IPP # MCO-MD-DPL-01-001

III. REFERENCE

MCO-MD-DPL-01-012 MCO-MD-DPL-01-001

IV. SCOPE OF SERVICE:

Location	Type of specimens Collected	Time / Day
All Inpatients Wards	blood	**Routine rounds** 0500H-2400H, 7 days/week at 0500H, 0900H, 1100H, 1300H, 1500H, 1700H, 1900H, 2100H and 2300H
All East Wing wards	blood	0500H-2400H, 7 days/week at 0500H, 0900H, 1100H 1300H, 1500H, 1700H 1900H, 2100H and 2300H

KACO&LD	blood	0500H-2400H, 7 days/week at 0500H, 0900H, 1100H 1300H, 1500H, 1700H 1900H, 2100H and 2300H

V. PROCEDURE

1. Collection Rounds:

Inpatients wards are divided into 4 routes for routine collection rounds:

Route 1: A1, CCU, A2, A3, A4, DMU, DSU, CSICU, CHU and CVSD

Route 2: B1, B2, B3, D3-1, D3-2, PICU and RR

Route 3: C1, C2, C3, D2, D4, CVT and MSICU

Route 4: E1, E2, E3, F1, F2 and F3

The early morning collection round begins at 0500H. Routine rounds then occur every 2 hours beginning at 0900H until 2300H. STAT and TIMED blood collection should be called to the inpatient dispatcher on extension **38291** or **MCD 46102 for main hospital** and **MCD 11082 for KACO&LD**. STAT requests should be made only in life threatening situations. Phlebotomist will collect all STAT/TIMED requests entered as lab collect in a timely manner as required. The unit nurse or doctor should page the phlebotomist for all STAT & TIMED collections. Phlebotomist should be notified at least 15 minutes before the actual collection time of TIMED specimens.

After been collected, routine and timed specimens will be sent thru the pneumatic tube system or hand delivered to the laboratory by the Phlebotomist.
STAT specimens will be sent to the lab thru the pneumatic tube system. If the pneumatic tube system is not operational or if the specimen to be transported is on ice or warm water, specimen should be delivered to the patient`s nurse where they can utilize the unit PCA or stat messenger.

2. Inpatient label printing (All orders)

Labels are printed **within 5 minutes** before every routine blood collection rounds.

a. To print inpatient collection lists:

- Click on the Collection List Icon in the Pathnet in Integrated Clinical Information System (ICIS)
- Select the Collection Route
- Make sure the highlighted Collection time is correct Make sure the Collection Date is correct Make sure the Default Printer is correct.
- Click on Print to print the labels.

b. To reprint Collection Lists:

- Click on the Label Reprint Icon in the Pathnet
- Click on the List Tab
- Check that Collection List is selected
- Enter the Date
- From the List Number drop down list, select the correct collection list
- Service Resource is ALL
- Enter the correct printer
- Click on Print

c. To reprint single labels:

- Click on the Label Reprint Icon
- Click on the Accession Tab

- In the Starting Accession Box, enter the Accession number
- Service Resource is ALL
- Enter the correct printer
- Press the Print button

3. After the labels are printed, proceed with the specimen collection following standard laboratory policies and procedures (SCP-SC-01).

4. Inpatient Lead tech should make sure that staff has verified the reception of their collected specimens thru batch verification

D2 Specimens:

a. Specimen collected from D2 should be collected and transported using a chain of custody form to ensure proper handling and timely analysis of the specimen.
b. A VIP sticker should attach to all specimens collected from D2.
c. After collection, lab tech should hand deliver specimens to specimen processing tech. using a form containing the patient name, MRN #, date and time of collection and the ID # of the tech who collected the specimen. The form should also include the number of tube collected.

TITLE / DESCRIPTION			INDEX NUMBER:
SPECIMEN COLLECTION OF 24 HOUR URINE AND MID-STREAM URINE SAMPLE			**SCP-SC-05**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To establish a uniform procedure for collection of 24 hours and midstream urine samples

II. POLICY

The 24-hour urine and mid-stream urine shall be collected as outlined to ensure the integrity of the specimen.

III. REFERENCES

MCO-MD-DPL-01-013

IV. PROCEDURE

1. **Depending on the test (s) requested, the patient is provided with:**

   A 24-hour urine collection container or sterile screw cap container for urine collection labeled with all patient information and test requested.

   If 24-hour urine collection is requested, the patient should be provided with instruction sheet (Arabic and English) outlining the 24-hour collection procedure form 702-61, (SCPSC- 05 attachment A).

2. **Laboratory staff**

   a. Write the time of collection and badge number of the person labeling the specimen on the collection label and stick it on the specimen container (Also see SCP-02-07).
   b. Instruct the patient to deliver specimen immediately after collection within 6 days from the day label was printed. The system will automatically cancel orders more than 6 days old.
   c. When delivered, dispatch specimen to Laboratory section as soon as possible. If more than one 24-hour container received for the same collection, make sure that containers are clearly identified i.e. (1 of 2, 2 of 2, etc.)

3. **24-hour urine Collection procedures:**

   a. Upon awakening in the morning, the patient should urinate and empty his/her bladder completely in the toilet and the time should be recorded.

b. All urine passed following this time should be collected in the provided container. Nothing should be discarded even small drops.
c. The next morning and exactly at the recorded time, patient should urinate and empty his/her bladder in the 24-hour container.
d. The container should be kept in a cold place (refrigerator or ice bath) during the collection period.

e. The container should be delivered to the laboratory as soon as possible after collection is completed.
f. Some tests require the collection to be made in a container containing chemical preservative which may be harmful if it contacts the skin. Container should be labeled clearly with preservative name and patients should be instructed accordingly.
g. This collection procedure should be followed strictly to ensure reliable results for the test requested.
h. If collection more than one container, the container should be numbered 1/2 and 2/2. The two containers should be delivered together at the same time.
i. If a patient has two collections, one with preservative and one without preservative, the patient should deliver the first collection to the lab when the collection is completed and immediately start the collection of the second one.

4. Midstream urine collection procedure:

1. Pass urine into toilet so that it does not touch the skin, and then insert the plastic cup into stream.

2. Finish passing urine.

3. Fill the container to about half-full.

4. Screw on sterile container cap very tightly.

5. Give container with urine specimen and request form to laboratory personnel

TITLE / DESCRIPTION			INDEX NUMBER:
PATIENT IDENTIFICATION AND SPECIMEN LABELLING PROCEDURE			**SCP-SC-07**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To provide a uniform and consistent patient identification and laboratory specimen labeling system.

II. POLICY

All patients must be properly identified before specimen collection and all laboratory specimens must be correctly labeled to insure the specimen is identified during all phases of its movement from Specimen Collection, through receipt, processing, analysis, and storage in the laboratory.

III. PROCEDURE

1. Patient identification:

All patients must be positively identified before collecting specimen as follow:

a. For outpatients, verbally ask the patient his/her full name (first, middle and last names) and verify it with the name on the collection label and/or order sheet form. (Refer MCO-MC-ADM-07-33).

b. For inpatients and in addition to the above, verify name and medical record number on the patient's wristband with those on test requisition or computer labels

All Inpatients and Emergency Room patients are required to wear identification bracelets. Oncology Clinic and Radiation Therapy patients with Blood Bank order sheet must also wear identification bracelets.

2. Specimen Labeling:

a. Blood Specimens:

i. All blood specimens are to be collected in the appropriate evacuated tube container (Refer to SCP-SC-01).

ii. After collection, the blood specimen tubes must be labeled by the person who collected them at the time of collection before leaving the patient (see the attached sheets on the proper tube labeling).

Computer generated labels contain;

- Patients' first, middle and last names
- Medical record number
- Accession number

- Location
- Date and time of collection
- Any special collection instruction as appropriate

In addition, the phlebotomist must legibly write his badge number, actual collection date, and collection time on the label. Label should then be stucked on the tube.

See the attached sheets (SCP-SC-07) ATTACHMENT A- for more clarification.

****** All information must be legible.***

Non-Computer Generated Labels Must Contain:

- Patient's name (first, middle and last names)
- Patient medical record number Date and time of collection Badge number of the collector.
- Small addressograph labels may be used provided the date and time of collection and the collectors ID number are written on the label. Printed stick-on labels must be properly positioned on the tube.
- All information must be legible.

b. <u>All other specimens:</u>

i. Generally, specimen containers for urine, stools and other microbiology specimens are labeled in the same way blood specimens are labeled.

ii. Date and time of collection should be so noted on the specimen container, as well as the badge number of the person giving the specimen container.

iii. Labeling of outpatient specimen containers:

a. The patient will bring a computer generated order sheet to the laboratory to get the proper specimen collection container for urine, stool, etc.

b. The phlebotomist will activate orders, generate computer labels and prepare appropriate container for the test requested according to the test requirements.

c. The phlebotomist will affix the barcode label (signed with phlebotomist ID#, date and time of collection) on the container before the specimen collection.

d. The properly labeled specimen containers are then given to the patient with instructions to return the specimen within 6 days of issue. Otherwise they will be cancelled

e. Extra specimen containers may be given to a patient if he/she loses the first containers. The specimen containers are again properly labeled before being given to the patient.

iv. When delivered, the specimen is dispatched to the laboratory as soon as possible.

TITLE / DESCRIPTION			INDEX NUMBER:
LABORATORY STAFF POLICY AND PROCEDURES IN ISOLATION AREAS			**SCP-SC-08**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To provide Specimen Collection staff with a managed plan of interaction with patients whose illness may jeopardize the health and safety of other patients or Hospital Staff

II. POLICY

Specimen Collection Staff will follow **Standard Precautions** in their interactions with all patients. Additional precautions will be initiated for patients known or suspected to be infected with pathogens that are transmitted by contact (direct or indirect), air, droplet, or common vehicle routes.

III. SUPPLIES

1. Gloves – non latex, Disposable, single use gloves (either sterile or non-sterile) will be worn. Used gloves will be discarded into an appropriate waste container.

2. Gowns - Disposable barrier protective gowns will be worn. Gowns will be used only once and then discarded into an appropriate waste container.

3. Masks - Disposable, single use masks will be worn once and discarded into an appropriate waste container. Masks should always cover the nose and mouth and should not be lowered around the neck and re-used.

4. Disposables - (alcohol wipes, gauze, tourniquet, lancets, etc.). Blood drawing trays should not be brought into the room. Only the necessary equipment should be carried into the room. Used disposables should be discarded into an appropriate container that remains in the patient room.

5. Sharps - (needles, lancets, needle holders, etc.). Only the necessary equipment should be carried into the room. Used sharps should be discarded into an appropriate container labeled **"SHARPS"** that remain in the patient room.

6. Laboratory Specimens - Care should be taken to avoid contaminating the outside of the container. Specimens should be placed in **"BIOHAZARD"** labeled impervious bags before being removed from the patient's room.

IV. PROCEDURE

A. STANDARD PRECAUTIONS

Apply blood and body fluid precautions universally to all patients regardless of their presumed infection status.

1. Gloves are to be worn for touching blood and body fluids; for touching mucous membranes and non-intact skin of **ALL** patients; for handling items or surfaces soiled with blood or other body fluids; and for performing vascular access or invasive procedures.

2. Gloves are changed after contact with each patient. Wash hands or use Alcohol based hand rub after gloves are removed.

3. Hands and other skin surfaces are to be washed immediately and thoroughly if contaminated with blood or other body fluids.

4. Special care is to be taken to prevent injuries caused by needles, scalpels and other sharp instruments or devices during procedures and during handling or disposal after procedures. Needles are not to be re-capped (If required, one hand scooping recapping could be used), purposely bent or broken by hand. After they are used, disposable needles and syringes are to be placed in puncture resistant containers for disposal. The puncture resistant containers will be located as close as possible to the area of use.

5. Masks and protective eyewear or face shields will be worn to prevent exposure of mucous membranes of the mouth, nose, and eyes during procedures that are likely to generate splashes, aerosols or droplets of blood or other body fluids.

6. Gowns or aprons will be worn during procedures that are likely to generate splashes or sprays of blood or other body fluids.

7. Healthcare workers who have exudative lesions or weeping dermatitis must refrain from all direct patient contact and from handling patient care equipment until the condition is resolved.

8. Category specific precautions will be used as necessary if infection other than blood - borne infection is diagnosed or suspected.

B. **ISOLATION PRECAUTIONS**

This approach recognizes that the spread of infection within a hospital requires three elements: a source of infecting micro-organisms, a susceptible host, and a means of transmission for the microorganism. Source and host considerations vary greatly from patient to patient. Isolation precautions concentrate on interrupting the spread of infection by transmission route.

When a patient is in isolation a color coded card is placed on the door. This card describes the type of isolation and also lists the precautions to be taken by those entering the room.

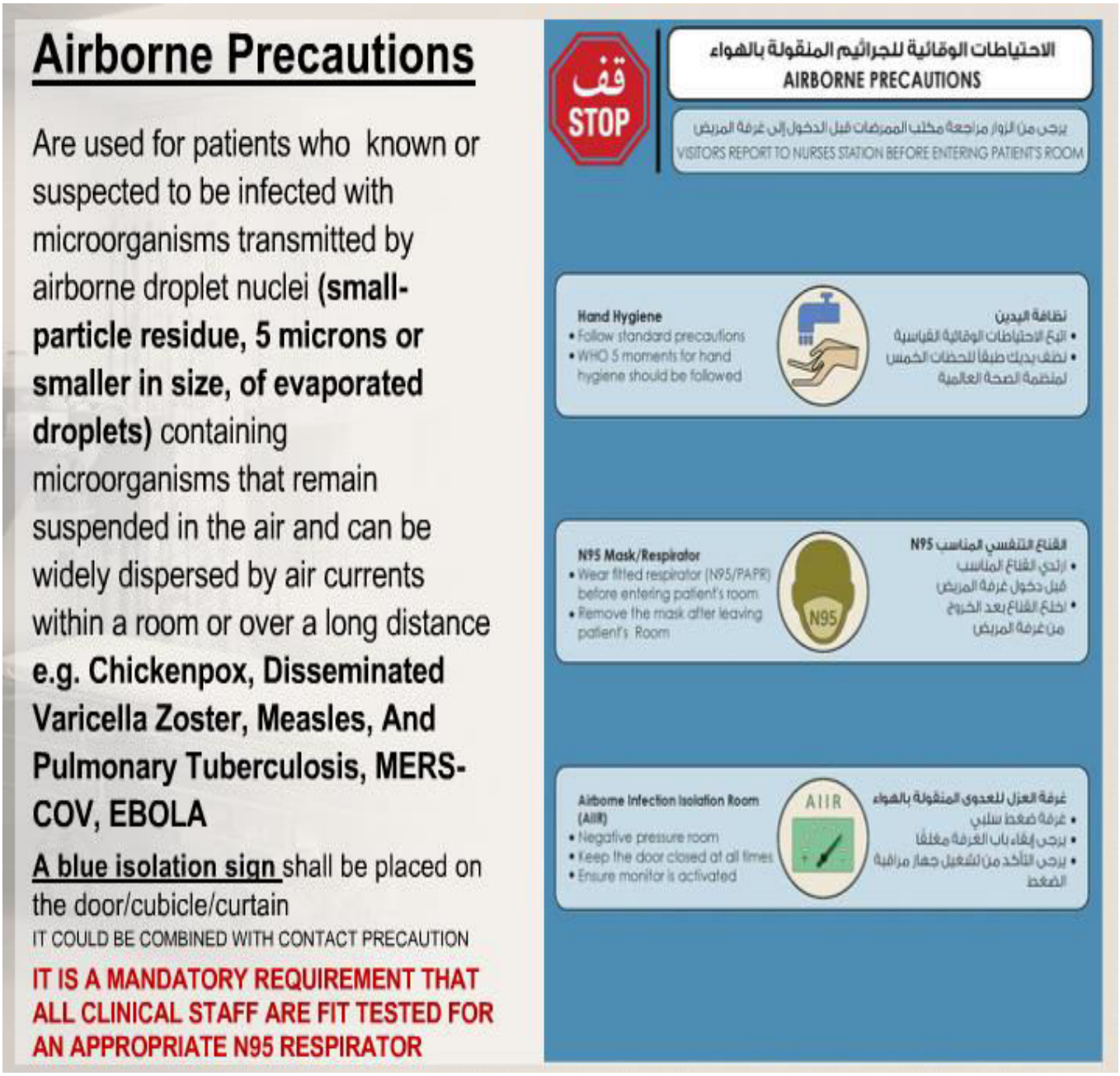
These precautions must be observed.

C. ISOLATION CATEGORIES

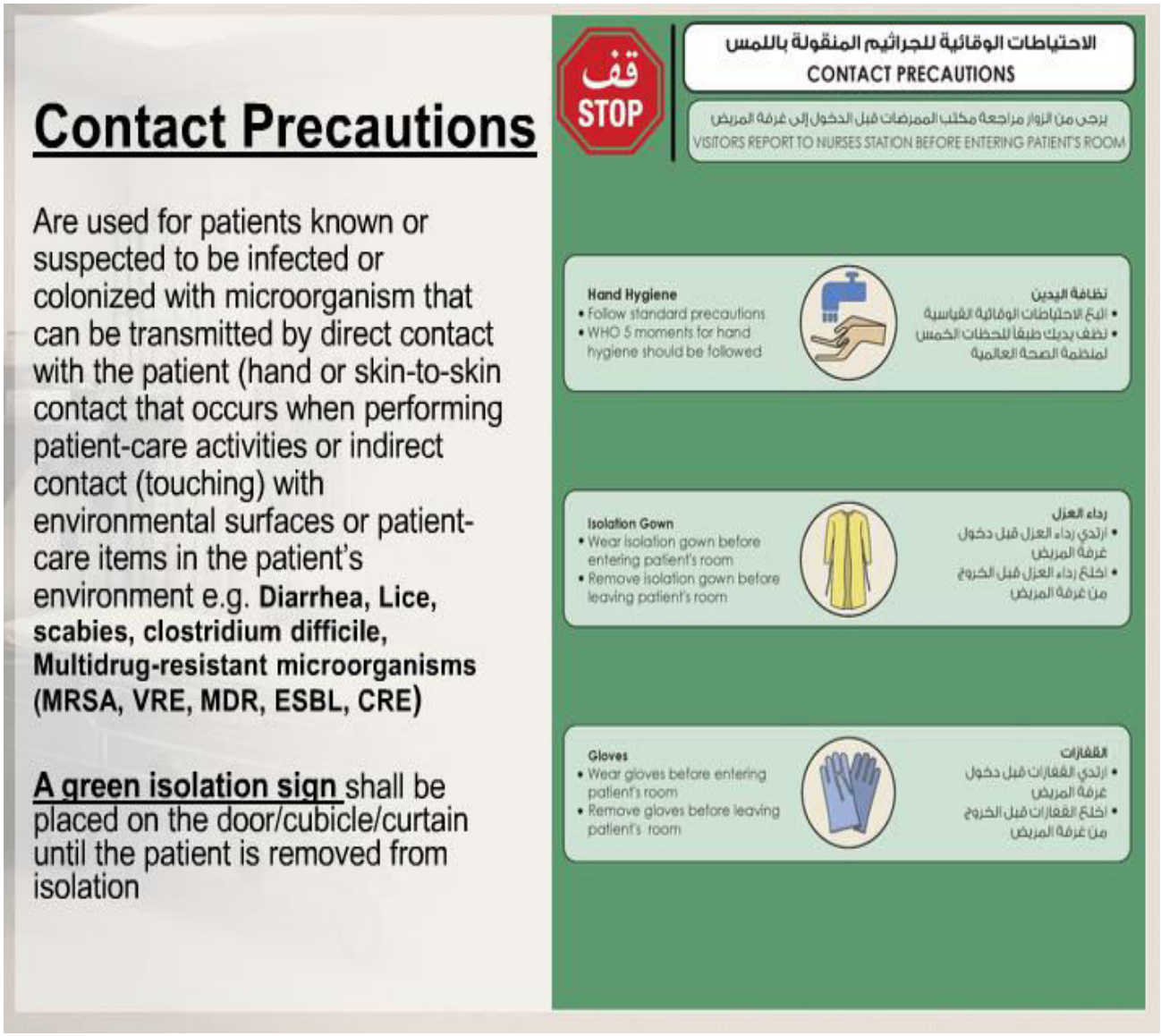
There are four categories of Isolation (see MCO Infection Control IPP MCO-MC-INF-04-011)

TITLE / DESCRIPTION			INDEX NUMBER:
LABORATORY STAFF POLICY AND PROCEDURES IN ISOLATION AREAS			**SCP-SC-08**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

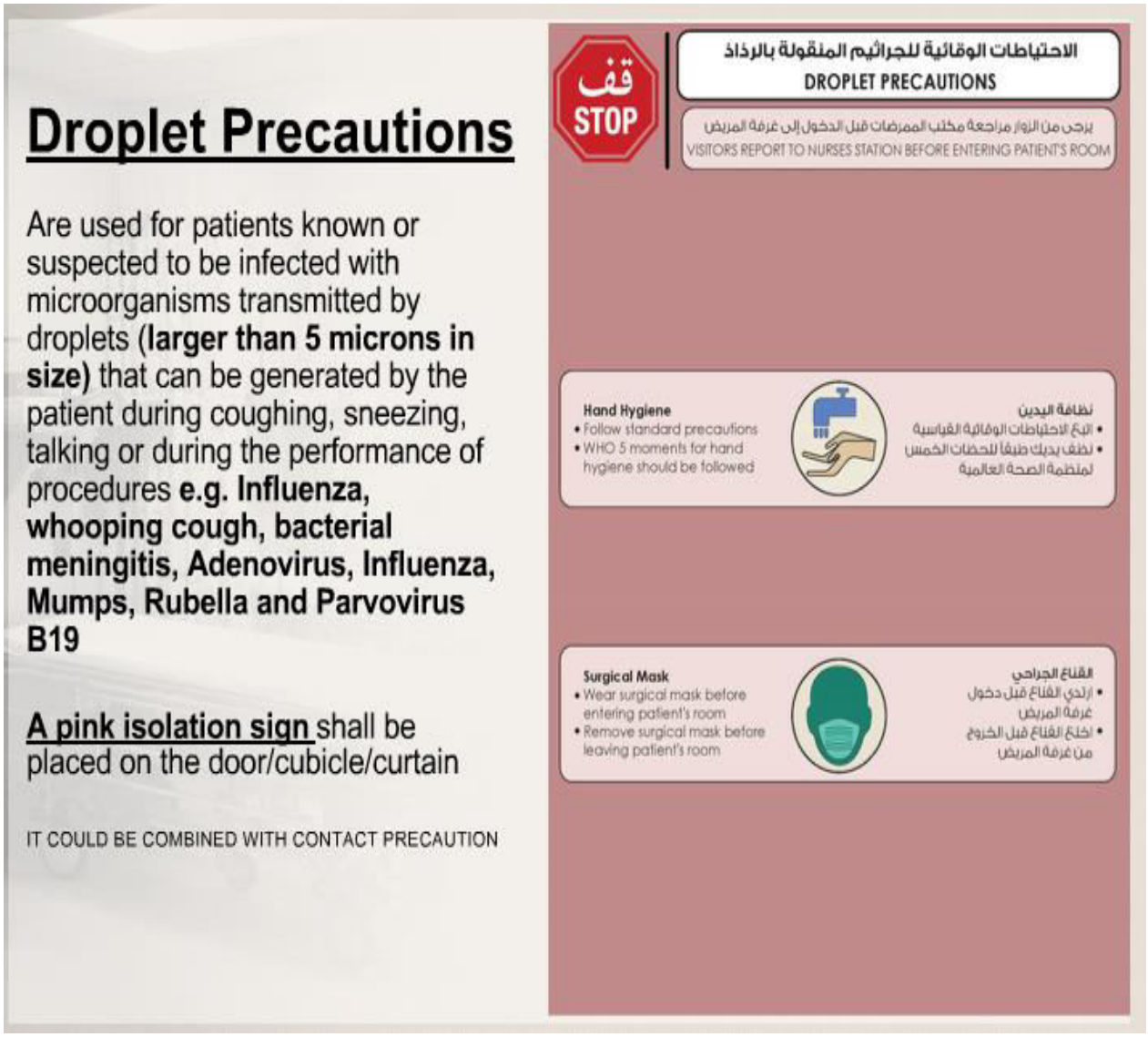
1. **AIRBORNE PRECAUTION** – **BLUE SIGN ON THE DOOR**



2. **CONTACT PRECAUTIONS- GREEN SIGN ON THE DOOR**



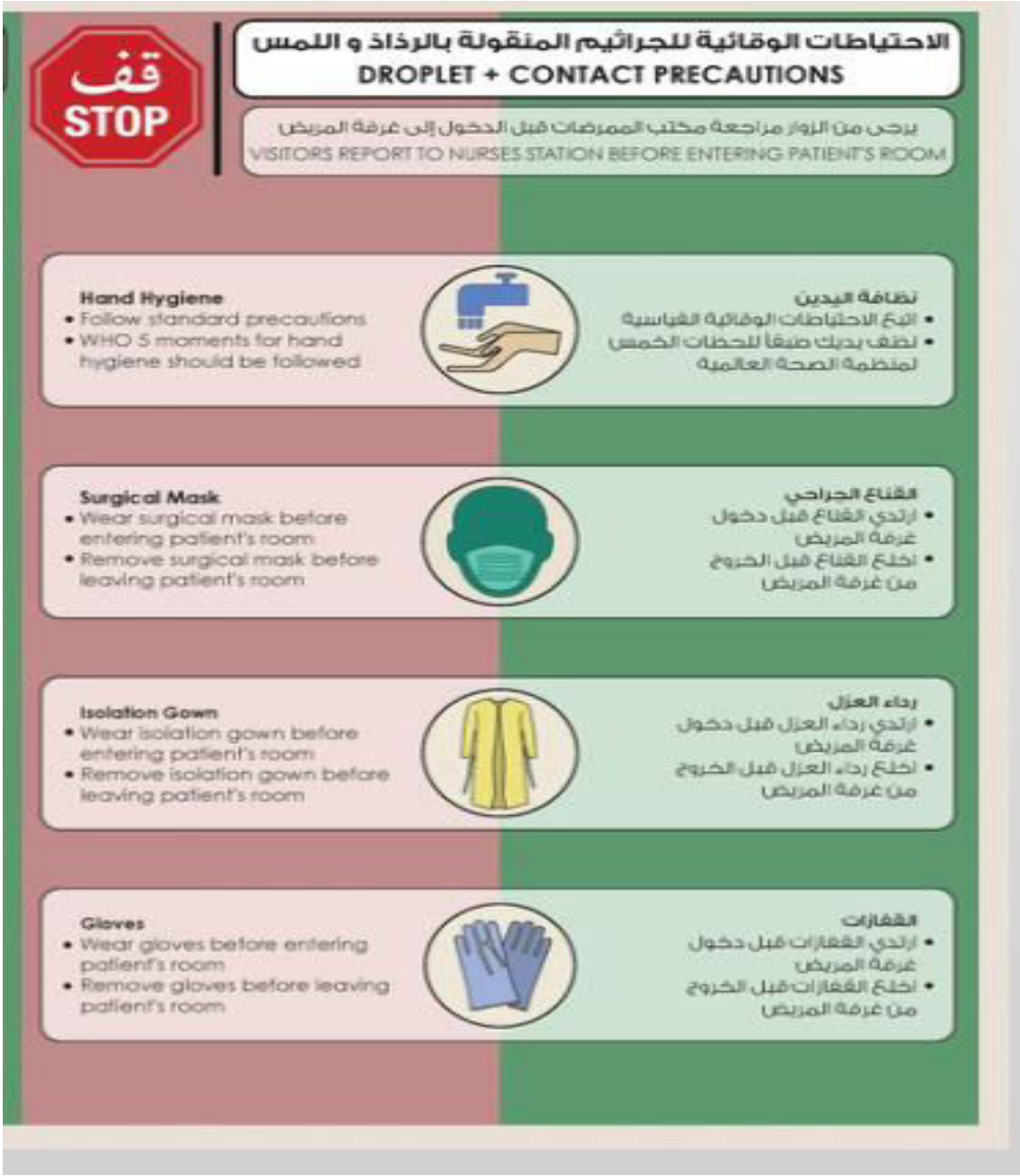
3. **DROPLET PRECAUTIONS** – **PINK SIGN ON THE DOOR**



4. **COMBINED PRECAUTIONS**

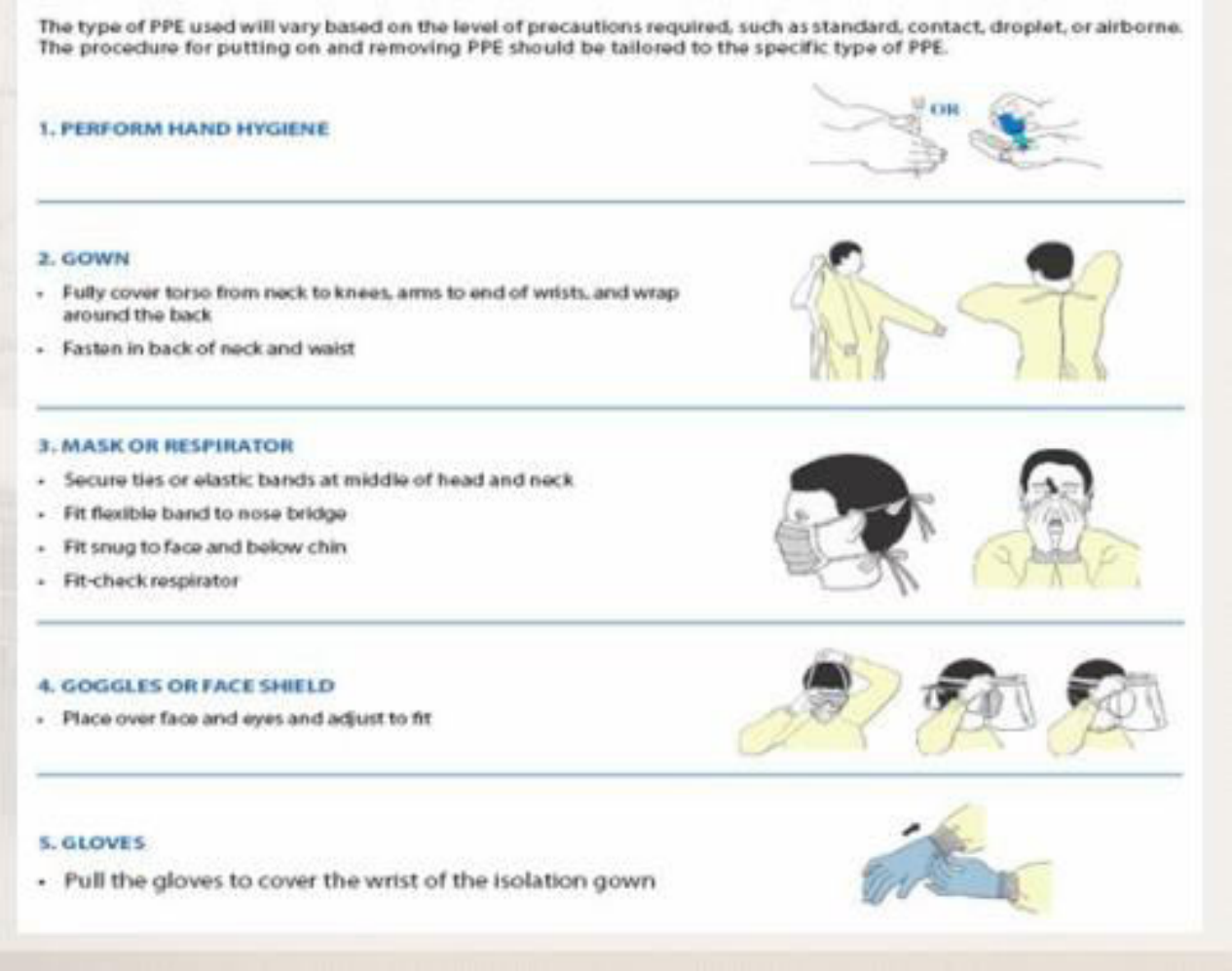
a) Airborne with Contact Precautions – Blue with Green sign on the door

b) Droplet with Contact Precautions –Pink with Green sign on the door



5. **SPECIAL ORGANISM PRECAUTIONS – WHITE WITH RED STOP SIGN ON DOOR**
   (attachment4)
   a. Wear gloves and gowns when entering the room
   b. Remove gloves and wash with antiseptic soap and water
   c. Remove gown and place in isolation waste bin
   d. Wash hands with antiseptic soap and water
   e. Wash hands or use alcohol based hand rub after leaving the room

D. **SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)**



E. SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE)

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials.

Note:
- Remove all PPE before exiting the patient room except a respirator, if worn.
- Remove the respirator after leaving the patient room and closing the door.
- If hands become visibly contaminated during PPE removal, wash hands before continuing to remove the remaining PPE

REMOVE PPE IN THE FOLLOWING SEQUENCE:

1. GLOVES
- Grasp outside edge near wrist
- Peel away from hand, turning glove inside-out
- Hold in opposite gloved hand
- Slide ungloved finger under the wrist of the remaining glove
- Peel off from inside, creating a bag for both gloves
- Discard into waste container

2. PERFORM HAND HYGIENE

3. REMOVE GOGGLES OR FACE SHIELD
- Grasp ear or head pieces with ungloved hands
- Lift away from face
- Place in designated receptacle for reprocessing or disposal
- Discard into waste container

4. REMOVING ISOLATION GOWN
- Unfasten ties
- Peel gown away from neck and shoulders
- Turn contaminated outside toward the inside
- Fold or roll into a bundle
- Discard into waste container

5. REMOVING MASK OR RESPIRATOR
- Front of the mask/respirator is contaminated — DO NOT TOUCH!
- Grasp bottom, than top ties or elastics and remove
- Discard in a waste container

6. IMMEDIATELY AFTER REMOVING ALL PPE WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER

V. References

Infection Control IPP MCO-MC-INF-04-011

TITLE / DESCRIPTION			INDEX NUMBER:
UNABLE TO COLLECT BLOOD SPECIMEN PROCEDURE			**SCP-SC-09**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To establish a uniform approach to blood collection insuring the safety and minimizing discomfort for difficult-to-collect patients.

II. POLICY

In attempting to obtain a patient's blood specimen, Phlebotomist is allowed only two venipuncture attempts. If unsuccessful in both attempts, then a second phlebotomist will try to obtain the blood samples in the same manner. If the second phlebotomist is unsuccessful, the test requests are returned back to the Nursing unit to notify the physician.

III. PROCEDURE

1. Phlebotomist will perform no more than two venipunctures in attempting to obtain blood specimens from a patient.

2. If unsuccessful in two venipuncture attempts, the attending nurse will be informed by the phlebotomist that a second phlebotomist will be assigned to attempt the draw. The second phlebotomist is also allowed two venipunctures to obtain the blood specimen.

3. If both phlebotomists unsuccessful:

    a. The attending nurse will be informed of the problem.
    b. The computer labels or manual (hard copy) requisition will be handed to the patient's nurse to notify the ordering physician.
    c. Upon returning to the laboratory, the phlebotomist will record the patient ID number, date, time and note "unable to obtain" in the specimen log book kept in the Inpatient Reception area

TITLE / DESCRIPTION			INDEX NUMBER:
BLOOD CULTURE COLLECTION TECHNIQUE			**SCP-SC-10**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE:

To define a standard technique for collecting Blood Culture sample

II. POLICY

Blood culture is the most important and technically difficult technique that phlebotomists are expected to perform. It is essential to perform the procedure correctly.

III. EQUIPMENT

1. Alcohol swab sticks X 3
2. Persist Plus
   - 2% Chlorhexidine Gluconate with 70 % Ethanol
3. BacT/Alert FA Plus Blood Culture Bottles (2 per set)
   Adult:
   a. Aerobic: Bact/Alert aerobic bottle (green cap)
   b. Anaerobic: Bact/Alert anaerobic bottles (Orange cap)
   Pediatric:
   Bact/Alert PF Plus pediatric bottle (yellow top)
4. Needle or butterfly
5. Disposable non-sterile gloves
6. Tourniquet
7. Syringe (10 – 20 ml)
8. Gauze
9. Bandages
10. Bio Hazard Bag

IV. COMMENTS

1. Blood cultures should be drawn from peripheral veins only

DO NOT DRAW BLOOD FROM AN EXISTING IV LINE

2. Recommended volumes

   a. Adults: OPTIMUM 10-20ml per bottle. The aerobic bottle should be inoculated first as there is about 0.5 cc of air in the line of the collection set
   b. Infants and children: 1-3ml into SINGLE pediatric plus bottle (yellow-cap bottle)

   Special tube holder may be used for blood culture collection. However, it should be noted that maximum of 20 ml should be collected in each bottle. More blood volume may result in false positive results.

TITLE / DESCRIPTION			INDEX NUMBER:
BLOOD CULTURE COLLECTION TECHNIQUE			**SCP-SC-10**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

V. PROCEDURE

1. Gather equipment
2. Wash hands and wear gloves
3. Apply tourniquet
4. Identify the vein
5. Release tourniquet
6. Wash the patient with soap & water if the chosen area appears "dirty"
7. a-Clean the site vigorously with alcohol swab sticks, starting at the center and in concentric fashion make a circle approximately 6 inches in diameter (Adjust for pediatric patients).
   b-Repeat as above using two more alcohol swab sticks
8. Clean the site vigorously (for 30 seconds) using persist plus, starting at the center and in concentric fashion make a circle approximately 6 inches in diameter (Adjust for pediatric patients)
9. Allow to air dry **DO NOT TOUCH, FAN OR DRY AREA WITH A GAUZE**
10. Inspect the blood culture bottles. Do not use the bottle if it is cracked or expired.
11. Remove flip-off caps from blood culture bottles and clean each with 2% chlorhexidine in 70 % isopropyl alcohol swab. Allow to dry for 30 seconds before inoculation of blood.
12. Apply the tourniquet
13. Without touching the venipuncture site, insert the butterfly needle with appropriate vacuum holder.
14. Inoculate the aerobic bottle first and then anaerobic bottle.
15. Remove the needle
16. Apply sterile gauze dressing or band aid over the venipuncture site
17. If you are using syringe and needle transfer the blood to the blood culture bottles immediately. Inoculate the anaerobic bottle first and aerobic bottle.
18. Invert bottles several times to ensure adequate anticoagulation.
19. Discard syringe and needles into the sharp container.
20. Label bottles with, time collected, ID #, of collector. Make sure not to cover the barcode label of the bottles.
21. Place in zip lock plastic bag and transfer to the laboratory.
22. Remove gloves and wash hands.

VI. REFERENCES

1. Bloodstream infections ASCP PRESS. Chicago, Illinois. C.L. STRAND, J.A. SHULMAN;1992.
2. Use and abuse of blood cultures. P.G. Gross,C.V. ANTWERPEN;1988,vol.16 number 3, pp.114:117.
3. Blood culture – A key investigation for diagnosis of blood stream infection – Biomerieux booklet

TITLE / DESCRIPTION			INDEX NUMBER:
BLOOD SPECIMEN COLLECTION FROM PATIENTS WITH IV LINES, RENAL FISTULA AND MASTECTOMY			**SCP-SC-11**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To provide a uniform protocol for collection of blood specimens from patients with I.V. lines, Renal Fistula and Mastectomy.

II. POLICY

Blood specimen will be collected from patients with I.V. lines, Renal Fistula and Mastectomy patients to insure safety and comfort of patient as well as the integrity of the blood specimen.

III. PROCEDURE

A. Normally, blood must be drawn from the arm opposite to the one with an I.V line, Renal Fistula and the Surgery side of the Breast Carcinoma patients

Alternatively, where possible, blood can be drawn from a site below an I.V line, e.g. if there is an I.V line at the elbow, blood can be drawn from the wrist vein. For mastectomy patients we are not allowed to collect blood from the surgery side. The risk is that the body's ability to fight an infection in the affected limb is compromised because of lymph node removal during mastectomy.

B. Sometimes, both of these procedures are not possible because:

1. A patient may have an I.V line on both sides.
2. There may be no suitable vein in the free arm.

When phlebotomist faces such a problem, he/she should inform the nurse in charge that the specimen cannot be collected. The nurse can stop the IV or the blood collection could be rescheduled.

C. Usually, a sign is placed on the patient room door to inform Phlebotomist if the patient not to be drawn from specific site. Phlebotomists have to follow the sign instruction carefully or consult with the nurse in charge if in doubt

TITLE / DESCRIPTION			INDEX NUMBER:
PROTOCOL – FOR TRANSPORT AND DELIVERY OF SPECIMENS – FROM INPATIENT AND OUTPATIENT STATIONS			**SCP-SC-12**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To provide a safe and consistent method of transportation for diagnostic medical laboratory specimens.

II. POLICY

Specimen Collection staff will apply established specimen transportation protocol, which provide a practical and orderly system for maintaining the integrity and confidentiality of diagnostic medical laboratory specimens and related materials. The analytical integrity and confidentiality of these materials is assured through the proper handling, packaging, transportation and timely receipt of these specimens. Furthermore, the protection and safety of the persons who handle these specimens must be ensured.

III. PROCEDURE

- Samples are routinely collected in the Outpatient, Polyclinic, Family Medicine, VIP, KACO&LD and EMS specimen collection areas and all Inpatient wards.
- Blood should be collected into sealed evacuated blood collection tubes.
- Random Urines and sputum should be collected into screw cap urine containers.
- 24-hour urine should be submitted in screw cap 24-hour urine containers
- Stools should be collected in stool containers.
- Ensure that all containers are properly labeled and tightly closed before sending them to specimen processing or analytical sections.

A. Messenger Transport:

MAIN HOSPITAL:

Routine specimens collected during routine rounds will be delivered to Specimen Processing thru the pneumatic tube system by phlebotomist. **STAT specimens will be sent thru the tube system by phlebotomist.**
When the tube system is not operational or when specimens require transportation on ice or warm water, such specimens will be delivered to the lab by the unit messengers.

EAST WING:

The mechanism for delivery of specimens collected by the phlebotomist assigned to the East Wing is the same as that of the Main hospital. **STAT specimens will be sent thru the tube system. If** the tube system is down or specimen require to be transported on ice or warm water, specimens will be left in the units for delivery by East Wing PCA.

Specimens should be placed in sealed biohazard bags for transport. The biohazard bags containing the specimens should then be carried in a secondary container with handles (KFSH bag, Stock item #610004) for transport to laboratory. 24-hour urines should be transported on a cart if there are many to be transported accompanying paperwork should be placed in the outer, un-sealed envelope of the biohazard bag.

OUTPATIENT LABORATORIES:

Blood specimens from outpatient, KACO&LD, protocol clinic laboratories and family medicine laboratories are sent to the lab thru the tube system. Urines and other microbiology specimens are transported by the laboratory messengers. Urine and microbiology specimens collected in the protocol clinic laboratory will be delivered to the lab by the protocol clinic PCA.

EMERGENCY ROOM:

Specimens collected in the emergency room will be sent to the laboratory by phlebotomist thru tube system or by the EMS messenger.

B. Pneumatic Tube Transport:

The pneumatic tube system will be used for sending blood specimens and documents. **No irreplaceable specimens**, for example CSF or other Body fluids, or Microbiology specimens should be sent through the tube system.
Specimens sent through the pneumatic tube system must be individually wrapped in either a sealed biohazard bag or a sealed zip-lock bag and then placed in a foam carrier insert. The foam carrier insert containing the bagged specimen is then inserted into a red carrier and the specimen sent through the pneumatic tube system. Red carriers should only be used for sending blood specimen and are programmed to go only to specimen processing. Auto unload carrier AUC strictly for laboratory use only. Black carrier should be used if documents are to be sent. No body fluids, tissue specimens or Microbiology/Virology specimens of any type should be sent through the pneumatic tube system. It is important to call the relevant section to confirm arrival of the specimen at the desired destination.

If the specimen does not arrive at the desired location after a suitable period of time, the pneumatic tube system technician should be paged immediately at pager # 9235. It is possible that if there is a “JAM”, the specimen can be retrieved and analyzed. If the specimen has been misdirected, a computer printout can be obtained and the final location of the specimen determined therefore enabling it to be returned and forwarded to the proper destination.

TITLE / DESCRIPTION			INDEX NUMBER:
ORAL GLUCOSE TOLERANCE TEST			**SCP-SC-13**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To establish a uniform and simplified Oral Glucose Tolerance Test specimen collection procedure.

II. POLICY

The Oral Glucose Tolerance (used for the diagnosis of diabetes mellitus) Test shall be performed with uniform protocol including patient preparation and specimen collection to ensure the comfort and safety of the patient as well as the integrity of specimens.

III. PROCEDURE

A. Glycolysis:

It is important to avoid glycolysis and falsely low glucose values, either by ensuring prompt analysis of specimen or using Potassium oxalate/Sodium fluoride as anticoagulant.

B. Patient Preparation:

Fast the patient overnight for a minimum of 10 hours, maximum 16 hours. Water is permitted, nil else. Smoking is not allowed.

C. Test Procedure:

1. The test should be carried out in the morning to avoid confusing circadian rhythms of hormone secretion.

2. The patient should be at rest for at least 30 minutes preceding the test, and remain at rest until the end of the procedure. Smoking is not allowed.

3. Blood is taken for fasting glucose (o minutes).

4. Give orally 75 g of a glucose solution (trutol) or equivalent starch hydrolysate preparation in approximately 300 mL of water.

   a. In children, the dose is 45 g/m² body surface area, or 1.75 g/kg body weight, up to 74 g. This should be ingested within a 5-minute period.

   b. Note the time when ingestion is finished.

5. Take a further sample for glucose at 2 hours after glucose ingestion. Label the tube with the appropriate time.

6. Submit specimens to the laboratory.

TITLE / DESCRIPTION			INDEX NUMBER:
COLLECTION OF GROUP CONFIRM SPECIMEN			**SCP-SC-18**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To ensure that there are no errors in (collection of blood specimens) which may lead to a patient receiving incompatible blood or blood products.

II. POLICY

All patients for transfusion must have two different blood specimens collected and tested for ABO/RH prior to the issue of any blood products. If there is no record of a previous blood group, a second specimen must be ordered to confirm the ABO/Rh by Blood Bank Staff.

III. PROCEDURE

Every patient will have two ABO/Rh groupings performed and recorded on two different samples drawn by different phlebotomists (or nurses) prior to the issue of blood or blood components.

A. When ordered , specimen for type and screen (ABO/RH) will be collected as usual by either nursing or phlebotomy .

B. Upon entry of results by Blood Bank staff, a “group confirmed” will be ordered if necessary, as per above.

1. **Inpatients**
   a second sample will be collected by a nurse or Phlebotomist different from the one who collected the original specimen. In the East Wing, the second specimen may have to be collected by nursing staff or physician, as the same Phlebotomist is assigned to that area for the entire shift. It is possible that it can be collected by lab if it is held until the next shift reports for duty.

2. **Outpatients**
   In most cases, outpatients will be unavailable for second phlebotomy and the group will be confirmed on their next clinic visit.

3. **EMS Patients**
   Blood Bank will call EMS to determine if the patient is still there, has been discharged or has been admitted. If the patient is still in EMS, a “group confirmed” will be ordered by Blood Bank. EMS Phlebotomist or the nurse of the patient will collect the second specimen according to the above stated policy.

IV. PROCEDURAL NOTE

Under no circumstances should two specimens be collected by the same person, with one held for relabeling later.

TITLE / DESCRIPTION			INDEX NUMBER:
DOMICILIARY VISIT BY A PHLEBOTOMIST			**SCP-SC-19**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To establish a uniform protocol for providing house visits by laboratory phlebotomist to collect blood specimen from VIP patients when requested by protocol services.

II. POLICY

Upon the request of the protocol department, the laboratory will dispatch a laboratory phlebotomist to a VIP house to collect blood specimen following established blood collection protocol.

III. PROCRDURE

1. Specimen collection section shall arrange the domiciliary visit of a phlebotomist to a VIP patient when so directed by the protocol services through a request letter signed by the Manager, Protocol Services and addressed to the Supervisor, Specimen collection and processing.

2. The request letter shall include the patient medical record number and the proposed time of the visit.

3. Upon receiving the request, specimen collection supervisor will assign a phlebotomist and provide the phlebotomist with patient information.

4. Phlebotomist will check orders in Integrated Clinical Information System (ICIS) and print collection labels.

5. At the specified time, the phlebotomist will proceed to the protocol clinic where he/she will accompany the palace/house representative.

6. Phlebotomist will collect the specimen according to specimen collection standard protocol.

7. After returning back, phlebotomist will deliver specimens to specimen processing.

TITLE / DESCRIPTION			INDEX NUMBER:
SAFETY PROCEDURE FOR COLLECTION STATIONS			**SCP-SC-20**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To establish guidelines to ensure a safe working environment.

II. POLICY

A. **STANDARD** Precautions are applied throughout the laboratory as per the Laboratory Safety Manual policies and procedures. In consideration of the fact that all specimens should be considered bio-hazardous, the following safety precautions must be enforced at all times. Staff not in compliance with safe practice procedures will receive disciplinary action according to DPLM policies (refer MCO-CS-LAD-03-004):

- **First offense** – verbal warning.
- **2nd & 3rd offense** – Variance report signed by employee
- **Repeat non-compliance:** Formal counseling & a warning lettering.
- **Further repeats**: Leading to formal counseling & final warning.

B. Broken glassware must not be used in the laboratory.
C. Eating, drinking, or smoking is not allowed in the laboratory.
D. Work areas and exit paths must be kept clean and free of clutter at all times.
E. Any spillage must be immediately cleaned with disinfectant solution.
F. All work counters must be cleaned daily with a disinfectant solution or spray.
G. Specimen racks should be chemically disinfected or autoclaved once per month.
H. Closed toed shoes must be worn in the workplace at all times

III. EQUIPMENT/REAGENTS

1. **STERIS**: Ready to use. Order number 1624-77.
   This is a one step disinfectant, Bactericidal, Fungicidal, and Virucidal.

2. **Sweep Broom and Dustpan.**

3. **Chemical Spill kit.**

4. **Eye Wash Bottle**

5. **Personal Protective Equipment (PPE)**
   KFSH(Blue/white) lab coats as per established dress code of the department.
   Wear Latex free gloves when collecting blood or handling other specimens.
   Isolation PPE for isolated patients (refer to SCP-SC-08)
   Safety goggles when pouring chemicals

TITLE / DESCRIPTION			INDEX NUMBER:
SAFETY PROCEDURE FOR COLLECTION STATIONS			**SCP-SC-20**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

Barrier Protection Worksheet

Task Or Activity	Personnel Involved	Mask/Face Shield	Hood	Gown	Latex Free Gloves
Specimens Collection	Phlebotomist			**Isolation Pt.**	**X**

IV. REFERENCES

DPLM lab safety manual, DPLM Exposure plan, SCP-SC-08

V. PROCEDURE

A. IN CASE OF FIRE:

1. In case of fire or smoke do the following: RACE

   - **R**escue persons in immediate danger.
   - **A**ctivate the alarm, and Call extension **2222** give the location and your identification number to the person on the phone.
   - **C**ontain the fire by closing doors.
   - **E**xtinguish if SAFE and POSSIBLE to do so.

2. In the case of an electrical fire, use CO2 or Tri-Dry (ABC) extinguisher after turning off and unplugging the instrument. Use a fire blanket to smoother flames if necessary. Alert your co-workers and evacuate the area.

B. IN CASE OF MEDICAL EMERGENCY:

1. Dial 7777 (outside the main hospital building).

2. Medical Emergency (inside the main hospital building).

   - Code Blue (pediatric under the age of 14): Dial 2222.
   - Code Green (Adults, more than 14 years' age): Dial 2222.

3. Report any injuries or needle stick sustained in the Laboratory to the supervisor immediately. Report to EMS or FHC for follow-up after filing an incident report. Incident report should be filed electronically through the online Safety Reporting System (SRS)

4. If specimen tubes broken or spilled in working lab area:
   Discard in a biohazard sharps container. Sweep up debris carefully with dustpan and broom. Decontaminate the area with STERIS disinfectant or 10% fresh Bleach.

5. Specimen tubes spilled or broken outside the working lab area (hospital corridors):

   a. Wear gloves.
   b. Ask a colleague to page lab personnel for spill kit, broom and dustpan to clean up site.
   c. Ensure someone stays in the spill area to isolate the spill site.
   d. Mark the contaminated floor area. (Sign or verbal notice to individuals in the area)
   e. Sweep up debris carefully with dust pan and broom
   f. Pour STERIS disinfectant or 10% fresh bleach over the spill area.
   g. Drop gauze over the decontaminated area to absorb fluids.
   h. Absorb the fluid with absorbent disposable cloth or absorbent pad from spill kit.
   i. Page Housekeeping Staff for further support and decontamination of the area.

6. Phlebotomy Stations and Trays:

   a. Wear latex free gloves when performing Phlebotomy procedures and when handling body fluids and any other patient specimens.
   b. Wash immediately with disinfectant solution and rinse profusely any blood spills if contaminated hands or any part of the body. If eyes got contaminated with any splashes, rinse immediately with eye wash.
   c. Dispose of all biohazard waste materials in designated red plastic bag lined containers marked biohazard.
   d. Clean the work counters daily with Steris disinfectant or 10% fresh bleach.
   e. Dispose of all sharps (glass, needles...etc.) in designated puncture resistant sharp containers. Seal the container tightly when it is filled and before disposal.
   f. Ensure that any open cuts or broken skin on your body are cleaned with isopropyl alcohol and covered with a band aid.
   g. Clean weekly or when contaminated all phlebotomy trays with disinfectant or 10% bleach.
   h. Store phlebotomy trays in the designated area.

KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTRE

Training verification procedure list for SPECIMEN COLLECTION SECTION

NAME: _____ ID #_____

		Procedure	Reading	Tech/trainee	SUPVSR	DATE
A	**Interactive Skills with patient:**					
	1	Introduces themselves to patients & explains procedure.	**SCP-SC-01**			
	2	Verifies identification of patient by the following:				
		a. Verbal patient identification				
		b. Wrist Band identification (When Applicable)				
		c. Written lab request identification (Where applicable)				
	3	Thanks patient when finished				
	4	Leaves area courteously (when applicable)				
	5	Maintains patient confidentiality				
	6	Does not divulge nature of test(s) to patient				
		(in a courteous manner).				
	7	Refers technical questions by patient to the				
		nursing or medical staff.				
	8	Maintains tidy appearance				
B	**Phlebotomy Adverse Reaction.**					
	1	Knows the procedure to follow in cases a patient experience				
		a. hematoma , nausea , fainting				
		b. Vomiting , seizures and injuries				
	2	Knowledge of the medical emergency procedures				
C.	**INTERACTIVE SKILLS, HOSPITAL STAFF**					
	1	Introduces themselves to hospital staff(where applicable)				
	2	Checks at Nursing Station for order changes before				
		beginning rounds.				
	3	Notifies Nurse/Ward Clerk if unable to obtain specimen.	SCP-SC-01			
	4	Assists Nursing staff, Ward Clerks and/or medical staff				
		in resolving test requisition problems				
	5	Answers telephone promptly and courteously,				
D.	**TECHNICAL SKILLS, BLOOD COLLECTION (ADULTS)**					
	1	Demonstrates knowledge of different tube types	SCP-SC-01			
		and specimen requirements				
	2	Demonstrates knowledge of proper sequences in				
		which to draw vacutainer tubes				
	3	Demonstrates proper venipuncture site disinfection				
	4	Demonstrates expertise in obtaining venous blood				
		specimens by vacutainer				
	5	Demonstrates expertise in obtaining venous blood				
		specimens by syringe				
	6	Demonstrates proper entry into and exit from vein				
	7	Demonstrates proper post-venipuncture site management				
	8	Labels all specimens with proper information/				
		identification at beside				
	9	Discards sharps and all other used supplies properly				
		as per established policy and leaves area clean				
	10	Demonstrates ability to obtain venous blood				
		sample from various sites:				
		a. Ante-Cubital Fossa				
		b. Hand				
		c. Ankle				
		d. Wrist				
	11	Demonstrates proficiency in fingerstick blood collection				
	12	Demonstrates knowledge of proper site of collection for				
		patients with I.V. or central lines				

KING FAISAL SPECIALIST HOSPITAL AND RESEARCH CENTRE

Training verification procedure list for SPECIMEN COLLECTION SECTION

NAME: _____ ID #_____

		Procedure	Reading	Tech/trainee	SUPVSR	DATE
E.	**TECHNICAL SKILLS, BLOOD COLLECTION (PEDIATRICS& NEONATES)**					
	1	Demonstrates knowledge of pediatric and	SC-SC-01			
		neo-natal specimen requirements				
	2	Demonstrates ability to obtain venous blood				
		sample from various sites:				
		a. Ante-Cubital Fossa				
		b. Hand				
		c. Ankle				
		d. Wrist				
	3	Demonstrates proficiency in obtaining venous				
		blood sample using scalp vein needle set (Butterfly)				
	4	Demonstrates proficiency in performing fingerstick & heelstick blood collection				
	5	Adheres to policy and procedure as outlined(SCP-SC-01)				
F.	**TECHNICAL SKILLS, SPECIAL TESTS**					
	1	Demonstrates proficiency in collecting blood cultures				
	2	Proper venipuncture site disinfection				
	3	Proper specimen inoculation into culture bottles				
	4	Knowledge of specimen collection from patient with IV	SC-SC-11			
	5	Knowledge of specimen volume requirements				
	6	Knowledge of blood culture bottlse priorities				
	7	Knowledge of procedure of collectin and transport of				
		specimens collected on(ice,warm water and quantiferon)				
G	**URINE AND STOOL SPECIMEN COLLECTION**					
	1	Knowledge of proper urine ,stool and sputum containers	SCP-SC-05			
	2	Knowledge of proper random urine collection procedure				
	3	Knowledge on proper 24 hours urine collection procedure	SCP-SC-05			
	4	Knowledge on proper stool specimen collection procedure				
	5	Proper patient instruction of the collection of urine & stool				
H	**SPECIMEN PACkAGING AND TRANSPORT**					
	1	Knowledge of proper specimen packaging procedure	SCP-SC-12			
	2	Knowledge of pneumaticc tube system operation				
I	**ORGANIZATIONAL AND OPERATIONAL SKILLS**					
		COMPUTER OPERATIONS/DATA ENTRY				
	1	Generate collection list				
	2	Reprint collection list				
	3	Verify collection batches				
	4	Creates encounter , activates orders and print coll. Labels				
	5	View order history and current specimen status				
	6	View lab test				
J		**ADHERENCE TO LAB SAFETY IPP**				
	1	Always employs Universal Precautions	SCP-SC-20			
	2	Follows outlined procedures in isolation areas				
	3	Disposes of sharps, used disposables and				
		contaminated items in a manner consistent				
		with laboratory policy (see LAB Safety Manual				
	4	Transports, stores and/or maintains biohazardous				
		materials in a manner consistent with lab policy				
	5	Maintains and supplies assigned collection tray				
	6	Keeps work area clean and tidy				

Department of Pathology and Laboratory Medicine
SPECIMEN COLLECTION SECTION
Training Checklist Procedure for

MEDICAL LABORATORY TECHNOLOGISTS - INTERN

Employee Name _____ **I.D.#** _____

COLLECTIONS	Employee	Date	Trainer
In Patients Laboratory:			
Printing and verification of blood collection lists			
Phlebotomy rounds and routes			
Inpatient adult specimen collection observation			
Inpatient pediatric specimen collection observation			
Inpatient ICU specimen collection observation			
Tube system procedure			
Inpatient specimen transportation			
Hard to stick patient procedure			
Outpatients Laboratory:			
Patient Reception and introduction procedure			
Q-matic and patient queuing			
Lab. encounter creation			
Order activation and collection labels printing from ICIS			
Phlebotomy Procedure			
Outpatient blood collection observation			
Blood and other specimen labeling procedure			
Specimen routing and transport (internal & RC centre)			
Location of outpatient Collection Labs. (Onc, VIP,etc)			

Reviewed by Supervisor _____ Date_____

TITLE / DESCRIPTION			INDEX NUMBER:
PATIENT REJECTION CRITERIA			**SCP-SC-22**
EFFECTIVE DATE:	REVISION NUMBER :	APPLIES TO: **DPLM- SPECIMEN COLLECTION SECTION & KACO&LD**	APPROVED BY:

I. PURPOSE

To provide a uniform approach for the collection of blood specimens taking into consideration the safety and comfort of the patient, and to emphasize the importance of proper blood collection techniques and to have an excellent tests result.

II. POLICIES

All the patients who want to perform the lab test must hold their ID card, follow all the instructions according to the Laboratory general procedures, to ensure the comfort and safety of the patients as well as proper and appropriate specimen collection related to the requirements of the test/service procedure.

The following are the criteria for rejection of patient:

a) Wrong patient requisition.
b) No order or orders are being cancelled in the ICIS system by the physician or nurse, etc.
c) Wrong dates (± 7 days) in the requisition form.
d) Wrong order (CSF / Body fluid instead of blood) in the requisition form.
e) Cortisol AM: Patient came to the Lab after 10:00am
f) Cortisol PM: Patient came to the Lab after 07:00pm
g) Order is Lipid and FBS (if the patient is not fasting and has an appointment on the same day)
h) Order 2° PPBS and patient did not follow the instructions.
i) Difficult stick (2 phlebotomists' X 2 times)
j) Patient doesn't have appointment with the Lab for special test (i.e. Blast genesis, Platelet aggregation, etc.)
k) Patient who did not follow the instructions on the request form (i.e. don't take vitamin supplement).
l) If the patient taken medication (i.e. FK/Sirolimus, etc.)
m) If the patient doesn't have the request forms (i.e. MDL, SDL, Send out etc.)
n) The patient with Blood Bank order, without wearing identification bracelet.