2015 Version

MODULE 7

Specimen Management

SLMTA Trainer's Guide

Overview

MODULE 7. SPECIMEN COLLECTION & PROCESSING

Performance Outcome

With satisfactory participation in the training and successful implementation of laboratory improvement projects, a participant's laboratory should achieve the following outcome:

- Proper specimen collection, labeling, packaging, storage, tracking, and disposal

Checklist Items Supported by this Module

This module supports the requirements for the following items from the SLIPTA Checklist:

1.5, 1.6, 2.1, 2.2, 3.5, 3.6, 3.7, 4.3, 4.5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 9.2, 10.2, 10.2, 10.3, 11.2, 11.3, 11.4, 11.5, 11.6, 12.2, 12.12, 12.16, 12.18, 12.20

Learning Objectives (Management Tasks)

By the end of this module, participants should be able to perform the following management tasks:

1. Determine appropriate tests based on test request and assign test responsibility
2. Review specimen log for completeness
3. Enforce good specimen handling and processing practices
4. Ensure adherence to specimen referral requirements
5. Track specimen referral status and review referral reports to ensure timely return of test results

What's in this Module?

ACTIVITY TITLE	PURPOSE	DURATION
Process Mapping (Part II)	Mapping a process, all the steps from the beginning to the end of an activity, is a tool that allows analysis and optimization of workflow and service delivery. In the beginning of training, participants map the steps in the process of specimen flow through the laboratory. In this module, participants map other elements in the process and create a process table.	35 min
Specimen Collection – Phlebotomy Role-Play	The quality of the specimen obtained in the pre-analytical phase of testing is crucial to the output of accurate and reliable results. A light-hearted phlebotomy role-play reinforces proper phlebotomy techniques and introduces the concepts of competency assessment and customer satisfaction.	30 min

Overview

ACTIVITY TITLE	PURPOSE	DURATION
Specimen Management	The quality of the inputs to the laboratory directly determines the quality of the outputs. Assuring that specimens are acceptable is an important function of laboratory management and is highlighted by this role-play.	30 min
Packaging Specimens for Shipment to Referral Site	Referral testing requires proper packaging and shipping of patient specimens to preserve their integrity and suitability and to protect all persons involved in their transportation. In this activity, participants learn the importance of safe and effective specimen packing and practice appropriately packing samples with available materials of varying levels of sophistication.	1 hour
Tracking Referral Specimens	Referral specimen status is essential for specimen management to ensure the timely return of test results. In this case study, participants learn to use a log to track referral specimens, follow up on an issue, and document the occurrence.	1 hour
	TOTAL ACTIVITY TIME:	**3hrs 35 min**

Overview

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ACTIVITY Specimen Collection: Phlebotomy Role-Play Module 7

PURPOSE:

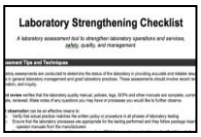
The quality of the specimen obtained in the pre-analytical phase of testing is crucial to the output of accurate and reliable results. A light-hearted phlebotomy role-play reinforces proper phlebotomy techniques and introduces the concepts of competency assessment and customer satisfaction.

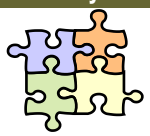
RESOURCES FOR FACILITATOR:

- ❑ PowerPoint slides: 7.7 to 7.9
- ❑ Tool: Phlebotomy Role-play Script
- ❑ Phlebotomy Supplies
- ❑ Flipchart and markers

RESOURCES FOR PARTICIPANT:

- ❑ Job Aid 1: Phlebotomy Checklist (701)
- ❑ Job Aid 2: Phlebotomy Key Competencies (702)
- ❑ Job Aid 3: Phlebotomy Patient Survey (703)

This activity supports the following laboratory management tasks and SLIPTA checklist items	
Management Tasks 	1.4 Assess personnel competency against standards and determine corrective action and training needs 7.3 Enforce good specimen handling and processing practices 9.4 Conduct customer satisfaction survey to identify areas for improvement
Checklist Items 	1.5 Laboratory Policies and Standard Operating Procedures Are policies and/or standard operating procedures (SOPs) for laboratory functions, technical and managerial procedures current, available and approved by authorized personnel? (Personnel Training; Competency Assessment; Pre-examination Processes; Laboratory Safety Manual) 3.5 Personnel Filing System Are records of personnel maintained and do they include the following? 3.6 Laboratory Staff Training Is there a system for training? 3.7 Staff Competency Assessment and Retraining Is there a system for competency assessment? 4.5 Evaluation Tool and Follow up Is there a tool for regularly evaluating client satisfaction, staff suggestions and is the feedback received effectively utilized to improve services? 8.1 Information for patients and users Are guidelines for patient identification, specimen collection (including client safety), labelling, and transport readily available to persons responsible for primary sample collection? 8.2 Does the laboratory adequately collect information needed for examination performance? 9.2 Testing Personnel Are testing personnel identified on the result report or other records (manual or electronic)? 12.2 Are the patient care and testing areas of the laboratory distinctly separate from one another? 12.12 Handling of Sharps Are 'sharps' handled and disposed of properly in 'sharps' containers that are appropriately utilized? 12.16 Personnel Protective Equipment Is personal protective equipment (PPE) easily accessible at the workstation and utilized appropriately and consistently?

This activity is related to the following activities:	
	Module 1: Competency Assessment Module 7: Specimen Management Module 9: Customer Service

ACTIVITY AT-A-GLANCE				
Step		**Time**	**Resources**	**Key Points**
1	Explain why proper specimen collection is important	5 min	Slides 7.7 to 7.8	
2	Present the Role-play	10 min	Slide 7.9 Tool Phlebotomy Supplies Job Aid 1	
3	Debrief the Role-play – Assess Competency	5 min	Flipchart & markers Job Aid 2	
4	Debrief the Role-play – Assess Customer Satisfaction	5 min	Job Aid 3	
5	Conclude the Activity	5 min		
	TOTAL TIME:	**30 min**		

PROCESS

Preparation

- Collect phlebotomy supplies (See Tool: Phlebotomy Role Play Script).
- Facilitators review Tool in preparation for presenting to participants.

Step 1. Explain why proper Specimen Collection is important — 5 min

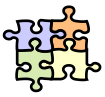
- Project Slide 7.7. Review associated framework task.
- Project Slide 7.8. Reinforce that most errors in the testing process occur in the pre-analytic phase of testing. Stress the importance of proper specimen collection in securing the integrity of the patient sample for testing. Remind participants of the old adage, "Garbage in = Garbage out."

Step 2. Present the Role Play — 10 min

- Project Slide 7.9. Ask participants to evaluate the phlebotomist using Job Aid 1: Phlebotomy Checklist as the role-play unfolds. Inform participants that there will be some mistakes and they should look for them, as they will be asked to enumerate them after the role-play is completed.

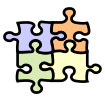
Step 3. Debrief the Role-Play - Assess competency — 5 min

- Ask participants to walk through the checklist and determine what mistakes were made.
- List the mistakes on the flipchart as provided by the participants, in turn, during the discussion. It will undoubtedly be noted that almost none of the items were performed properly.



- Link to *Competency Assessment* Activity. Refer to Job Aid 2: Phlebotomy Key Competencies. This provides a method of evaluating a phlebotomist's competency. The evaluation of personnel performing clinical testing falls to the immediate or site supervisor. Supervisors have a responsibility to assure that personnel are performing at a pre-determined level prior to allowing them to work on patients, test clinical samples, or report & release clinical results.

Step 4. Debrief the Role-Play - Assess Customer Satisfaction — 5 min



- Remind participants that the patient in the role-play would not likely give a very high customer service rating to the laboratorian. Refer participants to the Job Aid 3: Phlebotomy Patient Survey. This tool can serve to monitor customer satisfaction with phlebotomy. Link to *Customer Service* Activity.

Step 5. Conclude the Activity 5 min

- Link to *Competency Assessment* and *Customer Service* activities. In addition to the emphasis on proper collection of samples and pre-analytical error, this activity provides an introduction to the concepts of competency assessment and customer satisfaction.
- Highlight or reiterate the key messages below.
- Make sure participants achieved objectives of the activity.

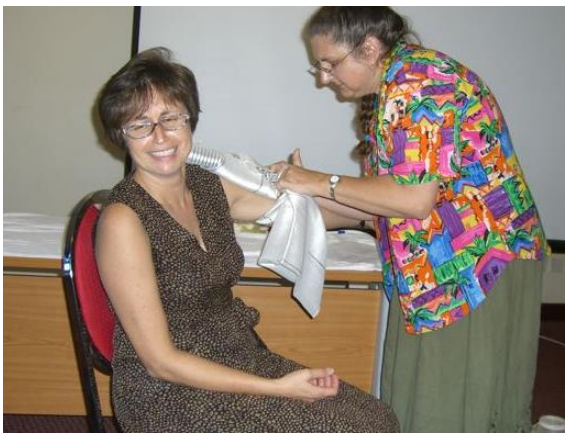
KEY MESSAGES

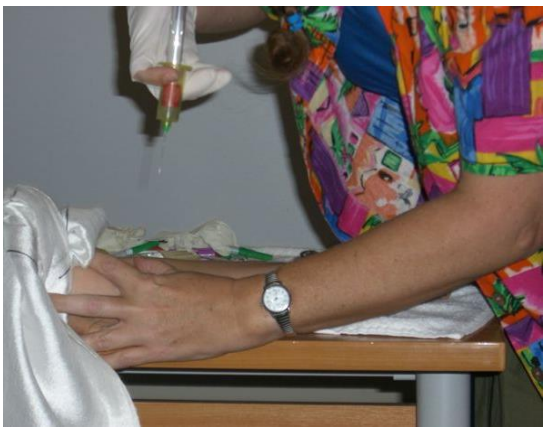
- The integrity of the pre-analytic patient sample is a key determinant in the overall quality of the testing process.
- Laboratory supervisors / managers have a responsibility to ensure the quality of services provided in their laboratory. Competency assessment is an important part of that assurance of quality.
- The sole reason for the existence of the laboratory is to provide quality care for the patient. Patient satisfaction is important to the work of the laboratorian.

Can they:

- Provide or supervise the provision of safe & effective venipuncture services?
- Guarantee the pre-analytic integrity of the patient sample for testing?
-

☑ ACTIVITY OBJECTIVES MET?





➤➤ Connections and Applications

- **The importance of the pre-analytic quality of the specimen** for overall testing quality cannot be overstressed. Garbage In = Garbage Out!
- **Focus on the needs of the user (patient, clinician, etc.)** is one of the guiding principles of quality assurance. To know what the needs of the users are, one must ask. A patient/client satisfaction survey is one very important tool to assure that the patient's needs are being met.

Tool: Phlebotomy Role-play Script

Setting:
Your lab – Phlebotomy station

Actors:

- One new, unskilled, incompetent laboratorian (Played by the facilitator)
- Patient #1 – Nervous, frightened patient (Played by another facilitator)
- Patient #2 – (Played by another facilitator)

Resources:

Phlebotomy supplies

- Tourniquet
- Vacutainer or other blood collection device & needle
- Blood collection tubes
- Cotton ball, bandage, tape, etc.
- Paper, Labels, marker, etc.
- Trash can, Sharps collection container

Action:

Patient #1 is sitting at phlebotomy station.

The laboratorian enters and makes the following mistakes when collecting the blood (or others ad lib)

1. Goes to patient without the requisition
2. Asks the patient "Are you Mrs. Maureen Motsa?"
3. Tells patient that this is his / her first time to draw blood
4. Applies tourniquet
5. Tells patient to wait while he/she goes to get the supplies (leaves tourniquet on patient)
6. Labels one tube while in lab, but does not label the other tube
7. Then returns to patient and puts equipment on desk
8. Asks the patient what type of specimen he is to have drawn
9. Asks the patient to wait while he/she runs back to get the requisition and checks which tubes he/she needs (Poor patient still has the tourniquet on)
10. Has patient extend arm, but does not have him clench fist
11. Does not clean with alcohol
12. When pretending to change vacutainer tubes, exaggerates wiggling of tubes
13. Keeps tourniquet on the whole time
14. Does not apply any gauze or pressure to arm when withdrawing needle
15. Disposes of sharps in regular trash
16. Allows one blood tube to roll to ground

Patient #1 leaves

Patient #2 walks in to the lab

Action stops

Laboratorian - Pretends that blood draw is over and tells patient #2 that he/she can go

Patient #2 walks out

Laboratorian looks on floor and sees blood tube, picks it up, and muses to self, "This must be from my last patient. What was his/her name?"

The End

Job Aid 1: Phlebotomy Checklist

GOAL: The phlebotomist will be able to perform a complication-free venipuncture obtaining a quality specimen in a manner consistent with good customer service.

SKILLS CHECKLIST:

1. Checks specimen requirements for ordered tests and stocks tray.	Yes No N/A
2. Greets patient, identifies self, and explains procedure. Exhibits good customer service behaviors.	Yes No N/A
3. Identifies patient using two identifiers. Verbally asks patient name. Verifies name and second identifier. Verifies fasting state.	Yes No N/A
4. Assembles and inspects equipment and has proper supplies at hand.	Yes No N/A
5. Reassures patient and places patient in a safe position.	Yes No N/A
6. Properly applies tourniquet for appropriate amount of time.	Yes No N/A
7. Has patient extend arm and clench fist.	Yes No N/A
8. Selects appropriate needle type depending on assessment of vein.	Yes No N/A
9. Demonstrates good judgment in vein selection (measurable center).	Yes No N/A
10. Uses alcohol or other disinfectant to cleanse site; allows site to dry.	Yes No N/A
11. "Fixes" vein and smoothly enters vein with needle at correct angle.	Yes No N/A
12. A. Smoothly depresses vacutainer tube into holder without changing position of needle.	Yes No N/A
13. B. Draws vacutainer tubes in correct order and fills completely.	Yes No N/A
14. C. Demonstrates proper aspiration techniques when using butterfly.	Yes No N/A
15. Demonstrates good judgment and adjusts technique when blood does not flow immediately.	Yes No N/A
16. Removes tourniquet when good blood flow is established.	Yes No N/A
17. Has patient release fist.	Yes No N/A
18. Removes vacutainer tube from needle holder slowly.	Yes No N/A
19. Smoothly withdraws needle and applies pressure with gauze to arm.	Yes No N/A
20. Mixes anticoagulated samples by inversion thoroughly.	Yes No N/A
21. Labels specimens correctly after the draw is complete.	Yes No N/A
22. Checks puncture site to make sure all bleeding has stopped and bandages site.	Yes No N/A
23. Disposes of contaminated materials properly.	Yes No N/A
24. Completes documentation as required.	Yes No N/A

Job Aid 2: Phlebotomy Key Competencies

1. Selects the most appropriate, accessible vein; checks antecubital fossa area first. Evaluates patient's veins and clinical situation to select best venipuncture site. Identifies an appropriate draw site whenever possible; listens to patient's preference on vein selection.
2. Identifies the patient both verbally and by checking the name and medical record number on the armband. Does not draw patients without an armband physically on the patient. Matches label name and MR# to armband. Resolves discrepancies before drawing the patient. Places barcode labels appropriately on all tubes after blood is drawn.
3. Communicates effectively with the patient and other internal and external customers. Displays a caring approach to every patient.
4. Inserts needle bevel up at no more than a 30° angle of insertion. Insert needle no deeper or further than necessary to achieve adequate blood flow.
5. Accurately assesses depth of needle insertion required to perform venipuncture without development of hematoma/bruising.
6. Consistently draws samples without QNS, hemolysis, IV contamination, or clotting.
7. Accurately describes and follows "standard precautions" for all blood collection procedures. Utilizes safety needles and plastic tubes for all draws.
8. Performs a successful venipuncture on 85% of patients at end of six weeks of daily rounds. Improves unable rate to less than 5% in the first year.
9. Takes appropriate corrective action when complications occur (Ex: syncope, hematoma, bleeding)
10. Assures stoppage of bleeding prior to leaving the patient. Applies pressure in cases of excessive bleeding. Does not draw if contraindications exist (edema, mastectomy).
11. Applies tourniquet for no more than two minutes. Removes tourniquet 100% of the time prior to needle removal.
12. Aseptically draws blood culture specimens per standard laboratory protocol with no reported incidents of blood culture contaminants.
13. Consistently signs and dates all Blood Bank specimens. No incidents of failure to sign or date reported by Blood Bank.
14. Follows Phlebotomy, Laboratory, and hospital policies and procedures 100% of the time.
15. Assesses equipment carefully for blood contamination, cleanliness, and safety before using on the patient; never uses contaminated supplies or reuses needles; puts gloves on in front of patient and changes gloves between patients.

The employee listed below has been assessed and is competent in all of the above competency areas.

Employee's Name: _____

Supervisor's Name: _____

Supervisor Signature: _____

Date: _____

Job Aid 3: Phlebotomy Patient Survey

Patient Name: _____ **Site:** _____

Date: _____ **Time:** _____

Phlebotomist: _____

1. Did the phlebotomist identify him or her self?	YES	NO
2. Did the phlebotomist explain the procedure?	YES	NO
3. Did the phlebotomist ask your name and identify you?	YES	NO
4. Was the phlebotomist neat and clean?	YES	NO
5. Did the phlebotomist wear gloves?	YES	NO
6. Did the phlebotomist open a new needle package?	YES	NO
7. Did the phlebotomist have the necessary equipment?	YES	NO
8. Was the phlebotomist skilled at drawing your blood?	YES	NO
9. Did you feel any discomfort during the blood draw?	YES	NO
10. Would you like this phlebotomist to draw you again?	YES	NO

Any comments to help us improve?

ACTIVITY Specimen Management Module 7

PURPOSE:

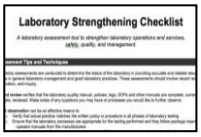
The quality of the inputs to the laboratory directly determines the quality of the outputs. Assuring that specimens are acceptable is an important function of laboratory management and is highlighted by this role-play.

RESOURCES FOR FACILITATOR:

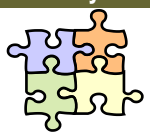
- ❑ PowerPoint slides: 7.10 to 7.12
- ❑ Tool: Specimen Rejection Role-play Script
- ❑ Role-play supplies (See Tool)
- ❑ Flipchart and markers

RESOURCES FOR PARTICIPANT:

- ❑ Job Aid 1: Criteria for Specimen Acceptability (704)
- ❑ Job Aid 2: Specimen Rejection Documents (705)
- ❑ Job Aid 3: Quality Improvement Project Plan (706)

This activity supports the following laboratory management tasks and SLIPTA checklist items	
Management Tasks 	7.3 Enforce good specimen handling and processing practices 9.4 Conduct customer satisfaction survey to identify areas for improvement
Checklist Items 	1.5 Laboratory Policies and Standard Operating Procedures Are policies and/or standard operating procedures (SOPs) for laboratory functions, technical and managerial procedures current, available and approved by authorized personnel? (Advisory Services; Identification and Control of Nonconformities) 1.6 Policy and SOPs Accessibility Are policies and SOPs easily accessible/ available to all staff and written in a language commonly understood by respective staff? 2.1 Routine Review of Quality and Technical Records Does the laboratory routinely perform a documented review of all quality and technical records? 2.2 Management Review Does the laboratory management perform a review of the quality system at a management review meeting at least annually? 3.6 Laboratory Staff Training Is there a system for training? 4.3 Laboratory Handbook for Clients – information to users Is there a laboratory handbook for laboratory users that includes information on location of the lab, services offered, laboratory operating times, instructions on completion of request forms, instruction for preparation of the patient; sample collection including patient collected samples, transport, agreed turnaround times, acceptance and rejection criteria, availability of advice on examination and interpretation of results; lab policy on protection of personal information, laboratory complaints procedure? 8.1 Information for patients and users Are guidelines for patient identification, specimen collection (including client safety), labelling, and transport readily available to persons responsible for primary sample collection? 8.2 Does the laboratory adequately collect information needed for examination performance? 8.3 Are adequate sample receiving procedures in place? 8.7 Documentation of Examination Procedures Are examination procedures documented in a language commonly understood by all staff and available in

	appropriate locations? 11.2 Quality Management System Improvement Measures Does the laboratory identify and undertake continual quality improvement projects? 11.4 Are quality indicators (TAT, rejected specimens, stock-outs, etc.) selected and tracked? 11.5 Is the outcome of the review of quality indicators used to improve lab performance? 11.6 Are the actions taken checked and monitored to determine the effectiveness of improved quality of lab performance?

This activity is related to the following activities:	
	Cross-Cutting: Managing Performance – The Balanced Scorecard Module 9: Customer Service, Meet the Clinician

ACTIVITY AT-A-GLANCE				
Step		**Time**	**Resources**	**Key Points**
1	Explain why obtaining appropriate specimens is important	5 min	Slides 7.10 to 7.11 Job Aid 1 Job Aid 2 Flipchart & markers	
2	Present Role-play	10 min	Slide 7.12 Tool	
3	Debrief the Role-play	10 min		
4	Conclude the Activity	5 min	Job Aid 2 Job Aid 3	
	TOTAL TIME:	**30 min**		

PROCESS

Preparation

- Collect role-play supplies (See Tool: Specimen Rejection Role-play Script)
- Make two copies of the Tool for the volunteer participant actors.

Step 1. Explain why obtaining appropriate specimens is important 5 min

- Project Slide 7.10. Discuss the importance of maintaining the integrity and quality of specimens. Ask participants if it is important to reject unacceptable specimens. If that is so, then why is it important?
- Reiterate that most errors in the laboratory testing process occur in the Pre-Analytic phase. Thus the quality of our inputs determines the quality of the laboratory outputs. Garbage In = Garbage Out!
- Project Slide 7.11. Refer to the Job Aid 1: Criteria for Specimen Acceptability. Remind participants that there are four main categories of criteria for specimen rejection. Ask participants to enumerate particular requirements in each category. Record on the flip chart.
  - Satisfactory specimen quality – What constitutes criteria for acceptable specimen quality?
  - Properly labeled specimens – Which information, if required, on the labels?
  - Specimens without Hazardous Handling conditions – What qualifies as hazardous handling conditions?
  - Completed Laboratory Requisition - Name at least 7 pieces of information that are required on the requisition.
- It is also important to know why specimens are rejected. Understanding the reasons for an occurrence can lead to correction of the underlying problem. Refer to Job Aid 2: Specimen Rejection Documents as an example of the type of specimen rejection data that needs to be collected.
- In addition, meeting customer service expectations and improving communication are also key factors in providing quality service in the laboratory. Therefore, rejecting unacceptable specimens must be carried out in a courteous and respectful manner.

Step 2. Present Role-play 10 min

- Project Slide 7.12. Ask participants to observe two possible ways that this unacceptable specimen could be handled.

Step 3. Debrief the Role-play 5 min

- Ask participants to contrast the mood and the demeanor of the parties in the two scenarios. Continue by asking which scenario will yield the best long-term results. Cross-reference the *Customer Service* Activity. Reiterate the importance of providing calm, customer-friendly responses.
- Remind participants that specimen rejection is one of the quality indicators introduced in *Managing Performance - The Balanced Scorecard* activity.

Discuss the reasons why specimen rejection is a quality indicator that reflects the laboratory's performance. Ask who is responsible for determining and assuring the acceptability of all specimens. The answer is the laboratorian.

- Explore ways in which specimen rejection can be preempted or prevented. Possible responses include:
  - Educate clinicians regarding the importance of specimen quality.
  - Provide written guidelines for appropriate specimen collection and handling. Cross Reference *Meet the Clinician* Activity regarding contents of a Clinician Handbook.
  - Ensure that these specimen management guidelines are widely distributed to all clients and are available at all points where specimens are collected.
  - Provide written guidelines for specimen rejection, i.e. Job Aid 1: Criteria for Specimen Acceptability.
  - Provide in-service education for nursing staff
  - Engage support of hospital administration
  - Find a laboratory champion among the clinicians and let him/her promote proper specimen handling to other clinicians
  - Collect data, assess the data, make a plan, and engage in an improvement project, making sure to follow-up.

Step 4. Conclude the Activity — 5 min

- Link to activities - *Customer Service*, *Meet the Clinician* and *Managing Performance – the Balanced Scorecard*. As specimen rejection is a quality indicator, this activity could be the springboard for a quality improvement project. Refer to Job Aid 2: Specimen Rejection Documents and Job Aid 3: Quality Improvement Project Plan. Consider having participants monitor and improve underlying causes for high specimen rejection rates and as an improvement project.
- Highlight or reiterate the key messages below.
- Make sure participants achieved objectives of the activity.

KEY MESSAGES

- To preserve the quality of laboratory inputs, one must not accept specimens that are of poor quality, dangerous, improperly labeled, or not accompanied by a complete requisition.
- Courteous, respectful, helpful communication is required in all customer service interactions and communications.
- Specimen rejection is an opportunity for education. Combining verbal and written communication regarding specimen acceptability is important for education of providers. The ultimate goal is to preempt and prevent specimen rejection.

Can they:

- Determine specimen acceptability?
- Communicate specimen acceptability policies clearly to laboratory users?
- Plan & implement an improvement project with the goal of preempting and preventing specimen rejection?

☑ ACTIVITY OBJECTIVES MET?

Connections and Applications

- **Focus on the needs of the user** – Provide courteous and respectful customer service.
- **Improve communication** – There are many and various forms of communication. Ultimately, the message regarding specimen acceptability needs to be communicated to the users of the laboratory. Finding the most effective method of sharing this information is a challenge. Encourage participants to take the time to explore several routes of communication with users.

Tool: Specimen Rejection Role-play Script

Setting/Background:

The laboratorian is receiving samples from a clinician at the laboratory reception desk. Clinician brings an unacceptable specimen to the laboratory. The laboratorian quickly observes that the specimen in unacceptable. This scenario is played twice. The difference is in the way that the laboratorian decides to communicate to and interact with the clinician.

Actors:

- 1 Laboratorian
- 1 Clinician

Resources:

- Clinician Handbook or Specimen Acceptability Criteria – Simulated with any paperwork labeled as such
- Lab coat for the Laboratorian (optional)
- One clearly unacceptable specimen – simulated using a plastic bag with a uncapped blood collection tube and water colored with red food coloring

Action:

Scenario #1 – Negative Scene

Clinician approaches laboratory "desk" with unacceptable specimen and reports, "I have a sample here from Mrs. Motsa"

Laboratorian rejects the sample with a rude response, belittling the clinician, alleging continuous problems, ad lib.

Clinician responds in like fashion alleging that the laboratory does not want to help the patients, that the sample was very difficult to obtain, and belittling the laboratory (ad lib)

Clinician ultimately departs and both parties are angry, defensive, and negative, (ad lib)

Scenario #2 – Positive Scene

Clinician approaches laboratory "desk" with unacceptable specimen and reports, "I have a sample here from Mrs. Motsa"

But this time the entire interaction takes on a calm and controlled atmosphere.

Laboratorian rejects the sample in a calm, matter-of-fact fashion, using the Handbook or Acceptability Criteria to educate the clinician. The entire tone of the interaction is cooperative and concerned.

Clinician responds in kind, appreciative of the additional explanation, and vowing to improve sample collection

Job Aid 1: Criteria for Specimen Acceptability

Statement of Policy

Proper specimen procurement and handling are an essential part of obtaining accurate, timely pathology and laboratory results. All specimens delivered to the laboratory must meet defined acceptance criteria for identification/labeling, collection, volume, preservation, and container type in order to be processed. If any criteria are not met, the attending physician, phlebotomy staff, or nursing unit personnel will be notified immediately so that corrective action can be taken.

Scope

Specimen acceptability requirements apply to all specimens submitted to the laboratory.

Procedures

To be acceptable, specimens must meet the following four (4) general criteria:

1) Satisfactory Specimen Quality

If a specimen is collected, handled, or transported in such a way as to alter the substances or constituents to be analyzed, then the specimen will be deemed unsatisfactory.

Criteria for Specimen rejection include:

a) Specimen collected in the wrong tube, container, preservative, or media.

b) Specimen inappropriately handled with respect to temperature, timing, or storage requirements.

c) Quantity not sufficient – QNS.

d) Lipemic or grossly hemolyzed specimens may be rejected depending on test requested.

e) Specimens with IV fluid or other peripheral line contamination.

f) Specimen collection device past expiry dates.

2) Properly Labeled Specimen

If any specimen is unlabeled, mislabeled, or improperly or incompletely labeled, it may be rejected.

Corrective Action for Labeling Errors:

If a specimen is determined to be unacceptable, the nursing unit, phlebotomist, or physician will be contacted and informed of the reasons for the unacceptable specimen and that a new specimen must be submitted. The reason for the rejection must be documented on the laboratory report or other log. If the specimen is irreplaceable such as CSF, certain Microbiology, and tissue specimens, the physician or other approved personnel must come to the laboratory to positively identify the specimen, affix the proper label, and complete an unlabeled / mislabeled specimen documentation form.

Job Aid 1: Criteria for Specimen Acceptability

3) Specimens should be submitted without hazardous handling conditions

Any specimen submitted in a manner which could create a health or safety hazard to laboratory personnel is considered unacceptable. The following situations are grounds for specimen rejection:

a) Specimens submitted in syringes with needles are considered unacceptable.

b) Specimens submitted in cracked or leaking containers with external contamination of blood/body fluids.

Note: Specimens that cannot be re-obtained (CSF, fluid aspirates, surgical tissue) will have acceptability assessed and the ordering location notified to come to the laboratory and transfer the specimen to an acceptable leak proof container.

4) Laboratory Requisition must accompany specimen

All laboratory specimens must be accompanied by an adequate requisition/order slip for the test. Paper or electronic requisitions must include the following: 1) adequate patient identification information, 2) patient sex, 3) date of birth or age, 4) name of physician or legally authorized person ordering the test, 5) tests requested, 6) time and date of specimen collection when appropriate, 7) initials of person collecting the specimen if applicable, 8) source of specimen when appropriate, and 9) clinical information when appropriate.

Responsibilities

Laboratory staff will determine the acceptability of all specimens for testing and will follow this procedure for rejection of specimens and notification of persons obtaining specimens. Laboratory supervisors will assure that all laboratory staff are educated on the policy and are in compliance with the policy.

Job Aid 2: Specimen Rejection Documents

Document of Laboratory Specimen Rejection due to Compromised Sample Integrity & Communication of Problems with Sample Integrity with Non-laboratory Personnel. **Reported to: (non lab)**		**Time, Date of Communication Signature of lab personnel**
	Not met special requirements before specimen collection, e.g. fasting	
	Incorrect patient identification	
	Incorrect tube or container or not mixed well	
	Inadequate volume	
	Specimen with haemolysis	
	Specimen compromised with IV fluid	
	Collected at improper time	
	Incorrect temperature when received	
	Not protected from light, as needed	
	Received past recommended time; not separated prior to transport after prolonged storage	
	Uncovered; exposed to air	

Reasons for Sample Recollection due to Specimen Problems Arising During Venipuncture

1. Improper identification of patient.
2. Failure to check patient adherence to dietary restriction.
3. Use of improper equipment or tubes.
4. Prolonged tourniquet application.
5. Failure to allow site to dry after cleansing.
6. Inserting needle bevel down.
7. Wrong insertion depth of needle.
8. Venipuncture above an intravenous line.
9. Venipuncture in an unacceptable area.
10.Wrong order of tube draw.
11.Incomplete tube fill.
12. Vigorous shaking.
13. Neglecting to release tourniquet before needle withdrawn.
14. Mislabelling of tubes.
15. Failure to put initials, date, and time on requisition.
16. Neglecting to chill specimens requiring refrigeration.
17. Slow transport of specimens to laboratory.

Job Aid 3: Quality Improvement Project Plan

Quality Improvement Project Plan

PLAN

Use all the resources available to you to try and understand the problem, propose solutions and develop an action plan.

SECTION A- Identifying the problem

I. State the apparent problem:

_____

_____

II. Collect Baseline Data:

What data will be collected? _____

Method - How will the data be collected? _____

Who is responsible for collecting data? _____

What are the tools/forms/checklists to be used? _____

Over what period of time will the data be collected? _____

When will the data be reviewed? _____

III. Analyze the baseline data:

What is wrong? _____

Where is it happening? _____

When is it happening? _____

Who is involved? _____

IV. Identify possible causes:

_____

_____

_____

V. Propose possible solutions:

_____

_____

Job Aid 3: Quality Improvement Project Plan

SECTION B: Action Plan

I. Identified problem: _____

II. AIM Statement (overall goal of this project) _____

_____

III. Actions to be implemented (following brainstorming of possible solutions).

Action item	Responsible Person	Timeline	Signature

IV. Select and Define ELEMENT TO BE MEASURED (to monitor effectiveness of implemented actions) _____

V. Results of element measured at baseline _____

VI. Acceptable results (target for this measure) _____

VII. Data Collection

How will the data be collected? _____

Who is responsible for collecting data? _____

What are the tools/forms/checklists to be used? _____

How often will the data be collected? _____

How often will the data be reviewed? _____

How often will the data be analyzed to monitor effectiveness of implemented actions?

_____

Job Aid 3: Quality Improvement Project Plan

DO

IMPLEMENT Action Plan

Collect data on element to be measured (to be done throughout the implementation period; document problems and unexpected observations)

Summary of data collected on element to be measured									
Date of Review									
Results									

Depending on the element measured, results may be presented in a different format than table above e.g. before and after pictures.

Monitor how the plan is being executed.

Action item	Responsible Person	Timeline	Signature	Action Plan review		
				R 1	R 2	R 3

CHECK

Was change effective? _____

If **yes**, how easy or difficult was it to achieve results? _____

_____

_____

Unexpected Observations:

_____

_____

ACT

If successful develop and implement plans to standardize the process, communicate changes and train as necessary.

If unsuccessful, use information collected during DO and CHECK for problem analysis (Repeat PDCA)

PLAN-DO-CHECK-ACT (Next Cycle)

Plan & Implement Cycle II of Improvement Project:

Proposed date to begin Cycle II of improvement project _____

Signature of Reviewer _____ Date _____

Laboratory Director _____ Date _____

ACTIVITY Packaging Specimens for Shipment to Referral Sites Module 7

PURPOSE:

Referral testing requires proper packaging and shipping of patient specimens to preserve their integrity and suitability and to protect all persons involved in their transportation. In this activity, participants learn the importance of safe and effective specimen packing and practice appropriately packing samples with available materials of varying levels of sophistication.

RESOURCES FOR FACILITATOR:

- ❑ PowerPoint slides: 7.14 to 7.20
- ❑ Sets of *Specimen Packaging Materials* for each group. (See the table below for additional items.)
- ❑ Applicable National Guidelines or SOPs (where available)
- ❑ Small table
- ❑ Specimen Packaging Workstation (See the table below for additional items)
- ❑ Tool 1: Send-out Workstation Duties
- ❑ Tool 2: Referral Records
- ❑ Tape, flipchart, and markers

RESOURCES FOR PARTICIPANT:

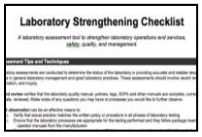
- ❑ Job Aid 1: Triple Packaging System (707)
- ❑ Job Aid 2: Specimen Packaging and Shipping (708)

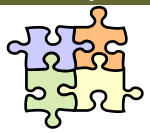
Specimen Packaging Material Packets

Utilize both sophisticated and rudimentary sample packaging materials. Use of national standard materials is encouraged wherever available

Set 1 (NHLS Standard)	**Set 2** (Rudimentary Packaging)
Test requisition forms	Test requisition forms
6 Specimens • 3 blood specimens • 1 sputum specimen • 1 Pus swab specimen • 1 cytology specimen	6 Specimens • 3 blood specimens • 1 sputum specimen • 1 Pus swab specimen • 1 cytology specimen
Specimen tracking form(s)	Specimen tracking form(s)
Absorbent sheaths and/or sheeting	Several paper towels
Clear plastic bags	Secondary container(s)
Pathoshield Carton	1 slide box w/slide
1 slide box	1 tea box
Cello tape / Shipping Tape	1 sheet bubble wrap
Scissors	Several sheets of newspaper
Biohazard shield emblems	Rubber bands
Cooler box w/ ice packs	Cello tape
	Scissors
	Cooler box w/ ice packs

Suggested List for Specimen Packaging Workstation		
Gloves Lab coats N95 masks Disinfectant Bottle containing disinfectant Cotton wool/paper towels Biohazard tape	Urgent label Spill kit Binder or folder labeled "Referral Specimens" that contains a "Specimen Referral Log" sheet Referral site contact Information Referral site laboratory handbook Driver/courier schedule	List of workstation duties Waterproof Marker Pen Biohazard Receptacle Test tube rack Gauze Specimen Packaging Material

This activity supports the following laboratory management tasks and SLIPTA checklist items	
Management Tasks 	7.3 Enforce good specimen handling and processing practices 7.4 Ensure adherence to specimen referral requirements
Checklist Items 	1.5 Laboratory Policies and Standard Operating Procedures Are policies and/or standard operating procedures (SOPs) for laboratory functions, technical and managerial procedures current, available and approved by authorized personnel? (Examination by Referral Laboratories and Consultants; Pre-examination Processes) 8.4 Pre-examination Handling, Preparation and Storage Where testing does not occur immediately upon arrival in the laboratory, are specimens stored appropriately prior to testing? 8.5 Sample Transportation Are specimens either received or referred packaged appropriately according to local and or international regulations and transported within acceptable timeframes and temperature intervals? 12.16 Personnel Protective Equipment Is personal protective equipment (PPE) easily accessible at the workstation and utilized appropriately and consistently? 12.18 Post Exposure Prophylaxis Are post-exposure prophylaxis policies and procedures posted and implemented after possible and known exposures? 12.20 Biosafety Training Are drivers/couriers and cleaners working with the laboratory trained in Biosafety practices relevant to their job tasks?

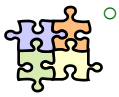
This activity is related to the following activities:	
	Cross-cutting: Workstation Set-Up Module 7: Tracking Referral Specimens

ACTIVITY AT-A-GLANCE				
Step		**Time**	**Resources**	**Key Points**
1	Explain what specimen packaging and shipping entails and why it is important	5 min	Slide 7.14	
2	Review the Right Packaging (Triple Packaging System)	10 min	Slide 7.15 Job Aid 1	
3	Introduce the activity	5 min	Slides 7.16 to 7.20 Specimen Packaging Material Packets Job Aid 2	
4	Monitor the activity	15 min	Specimen Packaging Material Packets Job Aid 2	
5	Discuss the Activity	10 min		
6	Discuss "What If" Scenarios	5 min		
7	Discuss specimen tracking and the send-out workstation	5 min	Specimen Packaging Workstation Tool 1	
8	Conclude the Activity	5 min		
	TOTAL TIME:	**60 min**		

PROCESS

Preparation

- List on a flipchart three factors necessary for specimen packaging and shipping:
  - The right packaging
  - The right temperature
  - The right timeframe
- Procure a small table to create a send-out workstation area.



  - Obtain as many items from the Specimen Packaging table as possible to complete the workstation. Refer to the activity, *Workstation Set-Up* for additional ideas or suggestions.
  - Post Tool 1: Send-out Workstation Duties on a wall in the workstation area.
  - Post an example of an in-country courier schedule on the wall. If one is not available, then label a blank sheet of paper "Courier Schedule" and note 1 or 2 pick-up times under the heading.
  - Obtain a referral laboratory handbook. If an in-country referral laboratory handbook is not available, then any small book or folded piece of paper labeled "Laboratory Handbook" can substitute.
- Prepare sufficient packets of specimen packaging materials for each group so that participants can work together in groups of 4-5 persons.
  - Use the two materials lists (Set 1 and Set 2) to gather sets of specimen packaging materials. While these materials may not always be available, every effort should be made to utilize both sophisticated sample packaging available to you alongside rudimentary materials in this activity. In some settings, a nearby private laboratory may be the best resource to obtain the most sophisticated packaging materials available.
  - Verify that all materials for each group are sufficient to pack the various specimens.
  - Obtain in-country requisitions, transfer logs and tracking forms. If transfer logs and tracking forms do not exist or are not available, then refer to Tools 2: Referral Records as an alternative.
  - Do not use actual specimens, but obtain the specimen collection containers or materials (i.e., glass slide) to simulate the specimens to be packaged.
  - Label all specimens and their accompanying test requisitions with patient ID information, date/time of collection, collector's initials, and ID number. To simplify the patient name selection you may use "Patient A, Patient B, etc."

Step 1. Explain specimen packaging / shipping and its importance 5 min

- Project Slide 7.14 to introduce the activity.
- State that some specimens may require transportation to a referral testing site to ensure that patients receive optimal treatment.
- Explain that referral of patient specimens is a laboratory task that requires proper packaging and shipping to preserve the integrity and suitability of the specimens and to protect all persons involved in their transportation.
- State that blood and body fluids are considered biohazardous material and, when shipped, are commonly referred to as dangerous goods. Note that

compliance with safety rules will:

- Reduce the likelihood that packages will be damaged and leak, and thereby
- Reduce exposures resulting in possible infections
- Improve the efficiency of package delivery

- Explore with participants the three factors (packaging, temperature, and timeframe) that affect specimen packaging and shipment and the common challenges they face with regard to these areas.
- Note to participants that packaging, temperature, and timeframe will vary by specimen and test requested. Point out a few examples.
  - Emphasize the importance of utilizing the correct transport media for specimens.
  - Stress the importance of the interval between specimen collection and processing, and testing for accurate testing.

Step 2. Review the Right Packaging (Triple Packaging System) 10 min

- State that specimen packaging involves three layers often known as a "triple packaging system". Display Slide 7.15 to provide a description of the packaging system for those participants who may not be familiar with the concept.
- Divide participants into groups of 4-5. Give each group a sheet of flipchart paper and a marker.
- Ask each group to draw and label an example of a triple packaging system on their sheet of flipchart paper. Indicate they have 5 minutes.
- Move around the room to monitor this activity.
  - Labels should include: Primary receptacle, Secondary packaging, and Outer packaging
  - Select from the group work a good example drawing to review with the class the purpose and general requirements of each element in the triple packaging system.
  - Tape the chosen drawing in a prominent position to facilitate a class discussion.
- Distribute Job Aid 1:Triple Packaging System and review the purpose and requirements for the three components of the packaging system while referring to the selected drawing.

Step 3. Introduce the activity 5 min

- Project Slide 7.16 to provide an overview of the activity.
- Divide the class into groups of 4-5 persons.
- Explain that each group will be given several specimens and packaging materials and should work together to appropriately package the specimens for shipping.
- Distribute *Specimen Packaging Materials* packets to each group. Give out at least two different types of packaging materials, giving some groups sophisticated packaging materials and other groups more rudimentary supplies.
- Distribute to each participant Job Aid 2: Specimen Packaging and Shipping.

You may decide to project Slides 7.17 to 7.20 using an overhead projector to provide a narrated overview of the job aid if participants require more instruction and guidance.

- Indicate the participants have 15 minutes to complete their packaging.

Step 4. Monitor the activity — 15 min

- Walk around to provide coaching and assistance to the groups.

Step 5. Discuss the Activity — 10 min

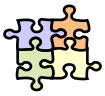
- Review with the full class each of the packages produced in the group session. If it is a large group, consider reviewing only one of each type of materials (one sophisticated example and one rudimentary example).
- Begin unpacking the samples to confirm with the participants whether the samples shipped were sent appropriately. Where packaging errors are evident, ask other groups to identify the problem and provide suggestions for improvement or alternatives.
- Stress that, regardless of the sophistication of the packaging materials, it should still be possible to properly package and ship specimens for referral. Fancy materials are not necessary.

Step 6. Discuss "What If" Scenarios — 5 min

- Ask participants for responses to:
  - What if you have to ship samples internationally for testing?
  - What if you are shipping samples for EQA?
  - What should be done if specimens leak/break in transit?
  - What if the packaging did not adequately contain a biohazardous leak and the driver's vehicle becomes contaminated?

Step 7. Discuss specimen tracking and the send-out workstation — 5 min

- Review the items placed in the specimen packaging table area.
- Discuss the importance of specimen tracking and the necessary documents and records required to track each specimen. Connect this to the activity, *Tracking Referral Specimens*.



Step 8. Conclude the Activity — 5 min

- Emphasize that some specimens are of critical importance to patient health and the late arrival of specimens at the testing site- and failure to package and ship them intact or at the appropriate temperature- may result in the need for another specimen to be drawn and an unnecessary (and perhaps costly) delay in the patient's treatment.
- Highlight or reiterate the key messages below.
- Make certain participants achieved the objectives of this activity.

KEY MESSAGES

- Proper specimen packaging and shipping is important to ensure quality results and the safety of laboratory and courier personnel.
- The three factors necessary for specimen packaging and shipping are:
  - The right packaging
  - The right temperature
  - The right timeframe
- Regardless of the sophistication of the packaging materials, it is possible to properly package and ship specimens for referral testing.

Can they:

- Identify the components of the triple packaging system and their purpose?
- Package specimens appropriately with the provided packaging materials?

ACTIVITY OBJECTIVES MET?

Connections and Applications

- A well-collected, properly labeled, and properly stored specimen, with a matching test requisition form, must be forwarded to a referral testing site in a timely manner to ensure the viability of specimens for testing.
- Some specimens are of critical importance to patient health and the late arrival of specimens at the testing site, and failure to package and ship them intact or at the appropriate temperature may result in the need for another specimen to be drawn and an unnecessary (and perhaps costly) delay in the patient's treatment.
- Drivers and couriers must be trained in the biosafety practices relevant to their job. The training should be documented and included in the personnel file.
- Laboratory specimens must be tracked. The sending site should retain a copy of the requisition. The specimen referral log should be kept current and reviewed weekly to follow-up on any outstanding results. Link this to the activity, *Tracking a Referral Specimen*.
- A communicative process between the sending and referral laboratory should be established. Areas that should be addressed are critical result notification, specimen rejection notification, specimen receipt verification, adding additional test confirmation, and result report transmission.
- The referral testing laboratory should provide a laboratory handbook as part of its customer service for the sending laboratory. The handbook should include instructions and guidelines that address such areas as: specimen collection and processing by test, available testing menu, expected turn-around-times, and required specimen identification and test information.

Tool 1: Send-out Workstation Duties

Specimen Processing for Referral Testing	
Daily Tasks	**Weekly, Monthly, or As-Needed Tasks**
▪ Inspect work area ▪ Adhere to safety practices; ensure all needed safety equipment is available ▪ Organize work area for the day's workload ▪ Ensure DBS are dried properly and prepared for shipment ▪ Ensure all specimens meet the referral test requirements ▪ Prepare a specimen transfer form for each requested test ▪ Aliquot specimens properly as needed ▪ Package specimens for shipment to referral site ▪ Record specimens on the transfer list ▪ Ensure specimen shipment is ready for pick-up at the designated courier times ▪ Ensure proper storage and retention conditions are met for those specimens submitted after the last courier pick-up time ▪ Ensure all retained specimens from the previous shift/day are packaged for shipment ▪ Document and record QA indicators and occurrences ▪ Ensure proper disposal of waste ▪ Clean and disinfect work area ▪ Restock work area with all needed supplies for the next day	▪ Review referral log; follow-up on any outstanding reports ▪ Tally workload for all stations ▪ Perform weekly and as-needed centrifuge maintenance on all centrifuges ▪ Issue repair orders and monitor until service is completed ▪ Review supplies and reagents needed at the workstation; update stockroom as needed ▪ Ensure sufficient workstation logs are available for the next month; provide blank logs at the end of month ▪ Observe other members and provide feedback and cross-train as needed ▪ Review and sign-off on all SOPs for the workstation and overall laboratory policies

Tool 2: Referral Records

Specimen Transfer / Referral Log

Specimen #	Patient Name	Specimen Type	Referred to	Transported by	Date Transported	Date Returned	Results	Notes
32	Jones, Eileen	AFB – sputum C&S	NHLS	A.H.	3/1/20XX			
87	McCarthy, Tom	AFB-– sputum C&S	NHLS	L.H..	4/1/20XX			
95	Joline, Angel	DBS	NHLS	L.H..	4/1/20XX			
25	Pacheco, Miguel	CSF C&S	NHLS	A.H	5/1/20XX			

Tool 2: Referral Records

SPECIMEN TRANSFER FORM

Patient Information

Patient Name: _____ Gender: ☐ Male ☐ Female Age: _____

Address: _____ DOB: _____

Referral Site Information

Sending Laboratory Name: _____ Client Code Number: _____

Specimen Information

Specimen ID Number: _____ Source/Site: _____

Collection Date: _____ Collection Time: _____ am / pm Transport Date: _____

Test(s) Requested _____

Additional Information: _____

Receiving Laboratory Verification

Receipt Date: _____ Receipt Time: _____ am / pm

Specimen ☐ Accepted ☐ Rejected Reason for Rejection: _____

Receiving Officer: _____

Signature: _____

Job Aid 1: Triple Packaging System

Primary Receptacles

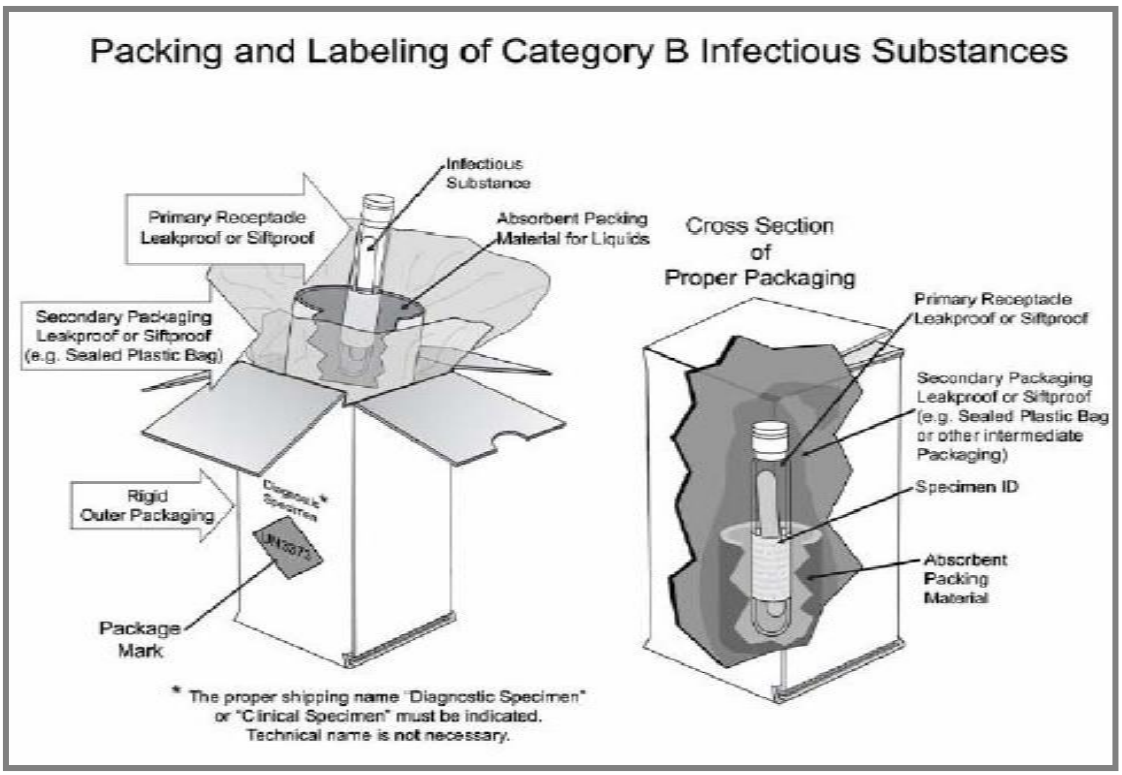
- ❑ Contains the specimen
- ❑ Must be watertight and leak proof
- ❑ Must be appropriately labeled as to content.
- ❑ Wrapped in enough absorbent material to absorb all fluid in case of breakage or leakage.

Secondary Packaging

- ❑ Encloses and protects the primary receptacle
- ❑ Must be watertight and leak proof
- ❑ Several wrapped primary receptacles may be placed in a single secondary packaging.

Outer Packaging

- ❑ Protects secondary packaging from physical damage while in transit
- ❑ Contains specimen data forms, letters, and other types of information that identify or describe the specimen and identify the shipper and receiver, and any other documentation required.
- ❑ Must be a sturdy container with a latch or able to be taped shut



Job Aid 2: Specimen Packaging and Shipping

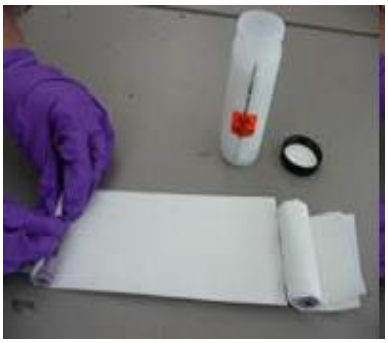
- Utilize PPE when packaging specimens.
- Ensure specimens are in the appropriate transport media (primary containers) for the specimen collected and the test requested (primary containers). Ensure that primary containers will not leak
- Determine the requirements temperature (ambient temperature vs refrigerated) and the referral timeframe (i.e., 6 hours) for the specimen collect and the test requested.
- Consult the driver/courier schedule to ensure that the sample will reach the referral center within the necessary referral timeframe.
- Place cool packs on the bottom of a secure leak-proof secondary container to properly preserve the specimens during shipping (specimens shipped at ambient temperature may not require cool packs, although it is often still advisable in warm climates.)
- Place the primary container(s) in the secondary container with sufficient absorbent material—paper towels, cotton balls, commercial products—to absorb the entire contents of the primary containers.
  - *Ambient temperature specimens can be transported in the same secondary packaging as refrigerated specimens, but should be packed as far away from the cool pack as possible and be insulated by at least one layer of absorbent material.*
- Ensure secondary container(s) is labeled properly with a biohazard sticker or stamp.
- Place secondary container(s) in an outer shipping container that can be secured with a screwtop, latch mechanism or sealed with tape.
- Place test requisition forms in a plastic sheath (if possible) inside the outer shipping container with specimen tracking form.
- Confirm that the contact information for the laboratory is clearly marked on the outer shipping packaging and/or in paperwork inside the outer packaging
- Note the date and time of pick-up on the specimen tracking form and/or the driver/courier logbook.
- Ensure that the drivers/couriers have received basic safety training in the transportation of specimens.
- Disinfect the bench where the specimens were packaged.

Job Aid 2: Specimen Packaging and Shipping

Step-by-Step Specimen Packaging Example

1. Collect specimens in primary containers and packaging materials

2. Place absorbent into bottom of secondary container.



3. Wrap each tube in paper towel.

4. Place tubes and biohazard marker in secondary container

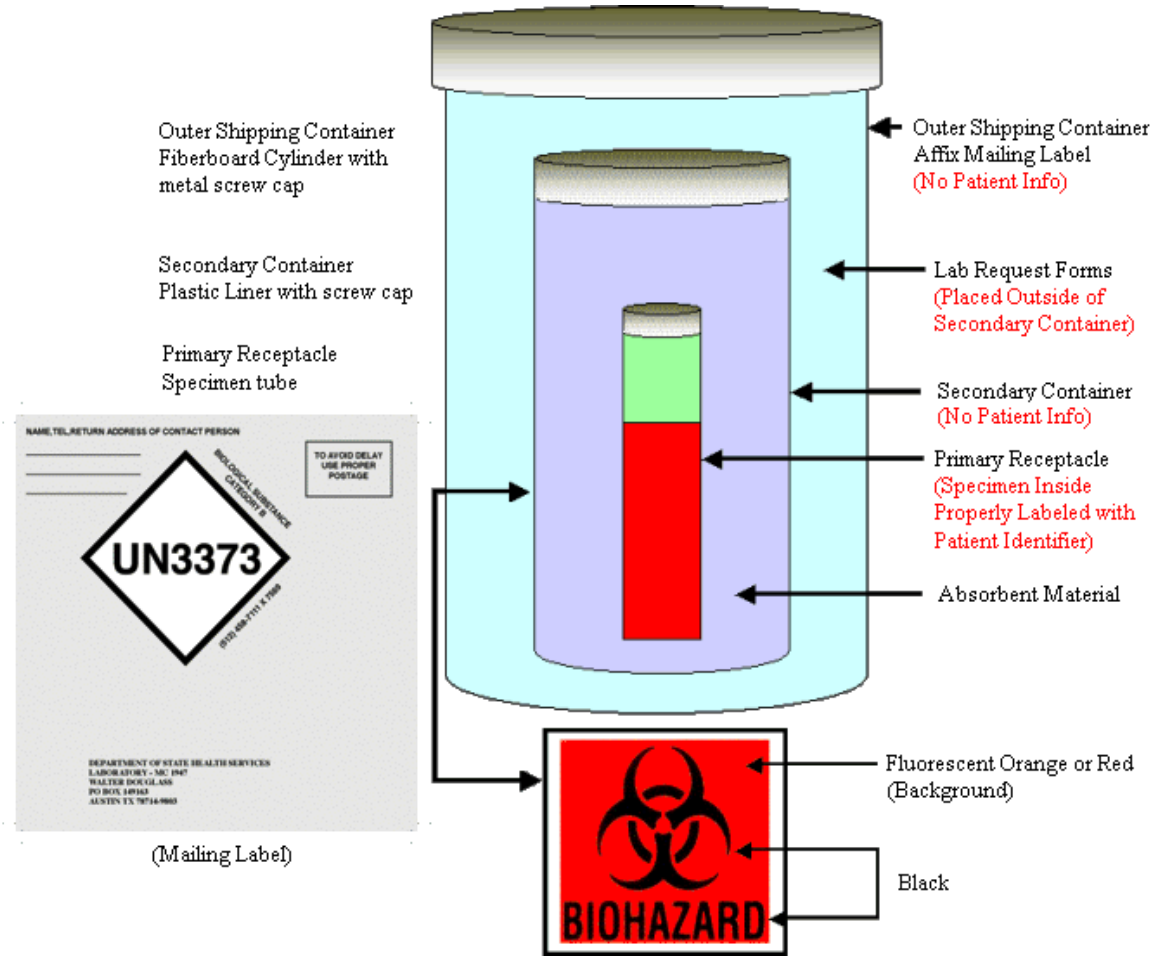
5. Put absorbent on top of tubes and screw on cap.

6. Roll lab form around the outside of the secondary container. Place in outer container. Screw on cap.

Job Aid 2: Specimen Packaging and Shipping

Specimen Packaging Diagram

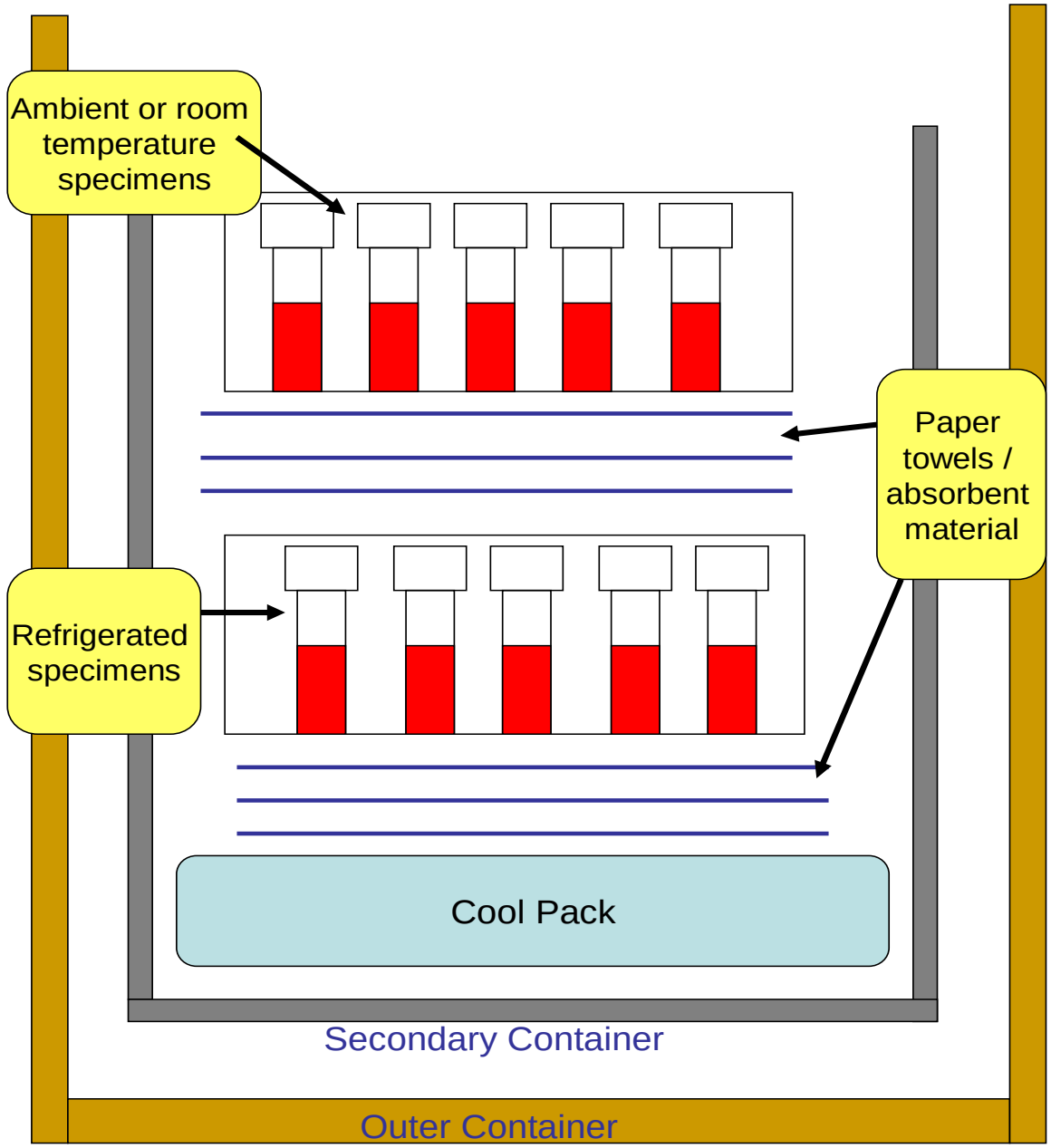
DO NOT put any patient information on outer container or secondary containers or lids.



Biohazard Label should be on Secondary Container.
DO NOT put Biohazard Label on Outer Container.

Job Aid 2: Specimen Packaging and Shipping

Cross Section of Refrigerated Specimen Packaging



ACTIVITY Tracking Referral Specimens Module 7

PURPOSE:

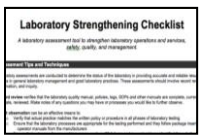
Referral specimen status is essential for specimen management to ensure the timely return of test results. In this case study, participants learn to use a log to track referral specimens, follow up on an issue, and document the occurrence.

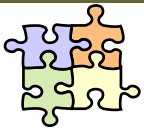
RESOURCES FOR FACILITATOR:

- ❑ PowerPoint slides: 7.21 to 7.22
- ❑ Tool: Referral Log Answers

RESOURCES FOR PARTICIPANT:

- ❑ Handout 1: Specimen Referral Log (709)
- ❑ Handout 2: Occurrence Report Example (710)
- ❑ Worksheet 1: Referral Log Questions (711)
- ❑ Worksheet 2: Occurrence Report Form (712)

This activity supports the following laboratory management tasks and SLIPTA checklist items	
Management Tasks 	6.8 Review occurrence log for patterns/trends and take corrective action 7.5 Track specimen referral status and review referral reports to ensure timely return of test results 9.2 Ensure test results reach referral sites or test requestors
Checklist Items 	1.5 Laboratory Policies and Standard Operating Procedures Are policies and/or standard operating procedures (SOPs) for laboratory functions, technical and managerial procedures current, available and approved by authorized personnel? (Examination by Referral Laboratories and Consultants; Identification and Control of Nonconformities; Corrective Action) 2.1 Routine Review of Quality and Technical Records Does the laboratory routinely perform a documented review of all quality and technical records? 2.2 Management Review Does the laboratory management perform a review of the quality system at a management review meeting at least annually? 8.6 Does the laboratory select and evaluate referral Labs and Consultants? 10.1 Are all identified nonconforming activities/ work identified and documented adequately? 10.2 Root Cause Analysis Is documented root cause analysis performed for non-conforming work before corrective actions are implemented? 10.3 Is corrective action performed and documented for non-conforming work? 11.2 Quality Management System Improvement Measures Does the laboratory identify and undertake continual quality improvement projects? 11.3 Communication System on Laboratory Operations Does the laboratory communicate with upper management regularly regarding needs for continual improvement?

This activity is related to the following activities:	
	Module 1: Creating a Management Calendar Module 1: How Do You Assign Personnel to Tasks? Module 7: Packaging Specimens for Shipment to Referral Sites Module 1: Planning and Conducting a Staff Meeting Module 9: Meet the Clinician

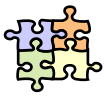
ACTIVITY AT-A-GLANCE				
Step		**Time**	**Resources**	**Key Points**
1	Explain why referral tracking is important	2 min		
2	Introduce the activity	3 min	Slide 7.21 Worksheet 1 Handout 1	
3	Monitor the activity	15 min		
4	Review the questions and introduce the occurrence	10 min	Slide 7.22 Worksheet 1 Handout 1	
5	Facilitate the occurrence form reporting	15 min	Worksheet 2	
6	Discuss the occurrence reports	10 min	Worksheet 2 Handout 2	
7	Conclude the Activity	5 min		
	TOTAL TIME:	**1 hour**		

PROCESS

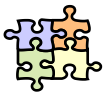
Preparation

- Consider modifying the 'Referred To' column on Handout 1: Specimen Referral Log to make it more relevant for the participants. Remember to update Slides 7.22 to reflect the modified information.

Step 1. Explain why referral tracking is important — 2 min



- Explain to participants what referral tracking is and why it is essential for specimen management. Discuss the various documents and records needed to track the specimen referral status. Link this to the activity, *Packaging Specimens for Shipment to Referral Site*.



- Indicate that a review of the referral log should be performed on a weekly basis. Any outstanding test result should be investigated and documented. Link this concept to *Creating a Management Calendar* activity.

Step 2. Introduce the activity — 3 min

- Project Slide 7.21 to provide an overview of the activity.
- Distribute or refer participants to Worksheet 1: Referral Log Questions and Handout 1: Specimen Referral Log. Indicate that the weekly review of the referral log was performed on the 12th. Instruct participants to answer the questions based upon this review date.
- Instruct participants to work in pairs (groups of 2). Indicate they have 7 minutes to review the log and answer the questions.

Step 3. Monitor the activity — 15 min

- Provide assistance and coaching as needed.

Step 4. Review the questions and introduce the occurrence — 10 min

- Project Slide 7.22. Ask participants for responses to Worksheet 1: Referral Log Questions.
- Ask the participants to list the immediate follow-through steps that should be performed to investigate Steve Clinton's outstanding test report. As responses are given, direct the investigation so that the following scenario emerges:
  - When the receiving laboratory was contacted, no record of receipt for this referred specimen was documented.
  - After the incident was discussed with the duty driver, the specimens were located under the seat of the driver's car.
  - The newly discovered specimens are no longer acceptable for testing.

Step 5. Facilitate the occurrence form reporting — 15 min

- Distribute or refer participants to Worksheet 2: Occurrence Report Form.
- Explain the purpose of an occurrence form and how it is used to investigate,

document, and improve the laboratory process. Review the form with the class.

- Explain that the investigation must look further into the outstanding test report issue to determine if it is a single occurrence or indicates a larger, more systematic problem.
- Divide the class down the middle into halves. In each half, create groups of 3-5 participants. Indicate to the first half that this occurrence is an isolated (single) incidence and their occurrence report should reflect this. Indicate to the second half that this has been a chronic issue and is expected to reoccur unless further measures are taken.
- Inform the groups to select a spokesperson to present their report to the class. Inform the groups that they have 10 minutes to complete Worksheet 2.

Step 6. Discuss the occurrence reports — 10 min

- Select a group's spokesperson for each scenario (single incidence and chronic issue) to present the occurrence report to the class.
- Invite the class to comment.
- Distribute or refer participants to Handout 2: Occurrence Report Example and discuss the report with the class.
- Ask participants how a laboratory manager can determine if this is a single or chronic issue. Discuss ways to create and organize an occurrence report log.

Step 7. Conclude the Activity — 5 min

- Highlight or reiterate the key messages below.
- Make certain participants achieved objectives of this activity.

KEY MESSAGES

- Weekly review of the specimen referral log ensures referred specimens are properly tracked.
- It is the laboratory's responsibility to ensure test reports for specimens referred to another laboratory are returned in a timely manner to the provider.
- Occurrence reports assist the laboratory to identify and to address problems that affect laboratory operations.

Can they:

- Review a specimen referral log and track a specimen's referral status?
- Follow-up on referral reports that are outstanding and document the investigation?

ACTIVITY OBJECTIVES MET?

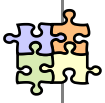
➤➤ Connections and Applications

- Specimen management requires that for every test requested a corresponding result must be provided. When test samples are sent to another laboratory to perform the test, the site where the orders originated still has the responsibility to track and provide the result to the provider.
- Key points to emphasize for Handout 1: Specimen Referral Log include the following:
  - The test's approximate turn-around time (TAT) can be used to determine if a test is outstanding and requires further investigation. The receiving laboratory should be able to provide the TAT or they should be listed in their clinician handbook. Refer to the Job Aid: Creating a Clinician Handbook located in the *Meet the Clinician* activity.
  - Weekly review of the referral log can be accomplished quickly by simply glancing at the "Date Returned" and "Results" columns to look for any blank areas. This task can be assigned as a workstation's weekly duty. Link this concept to the activity, *How Do You Assign Personnel to Tasks?*
  - Documentation should always include date and time, who was notified, and the initials of the staff member who did the review.
  - Documentation of critical results should be indicated on the requisition and the logbook.
  - Every test request must have a corresponding result. "Test not performed' (TNP) is also a result. However, descriptive results (such as TNP) are not complete until there is follow-through documentation noted on the requisition and in the appropriate result log book. Use and documentation of descriptive results should be part of the Rejected Specimen SOP.
  - For the referral log to assist with tracking the specimen referral status, it must be kept current. Remember to update the log when a result report is returned to the laboratory.
- Key points to emphasize for Worksheet 2: Occurrence Report Form include the following:
  - An occurrence is detected (a test result is not returned).
  - The occurrence is investigated and immediate action is taken by the staff member.
  - An occurrence report is initiated as soon as possible and given to supervisor. Any relevant documentation is attached with the report.
  - The supervisor investigates the occurrence further to determine the cause.
  - The supervisor plans corrective action to be taken to remove or reduce the reoccurrence of the problem.
  - Corrective Action is performed.
  - Follow up to determine the effectiveness of the corrective action is reviewed as part of the quality improvement process.
- Key points to emphasize for Handout 2: Occurrence Report Example include the following:
  - Date, time and contact information were recorded for each step.
  - The provider and patient were notified. Any test result delays or laboratory accidents should be communicated to the provider.
  - The laboratory's procedure for handling unsatisfactory specimens was followed.
- Internal audits are performed to identify current problems in work operations

Connections and Applications

and the resolution of these problems, which helps improve laboratory quality and patient care.

- Individual events are investigated and documented on an occurrence report. However, these reports should be organized to reveal trends or patterns in order to determine whether systemic problems are responsible for errors and/or incidents. A laboratory should consider the use of an occurrence report log to manage incidents. This log classifies the report by patient location, laboratory location, test phase, or error type.
- Occurrence information should be reported to upper management on a monthly basis with the use of graphs that illustrate visually the problems and their management.
- Staff meetings provide a wonderful opportunity to discuss problems and communicate changes with staff members. Staff members need to understand that the purpose of occurrence reports is to improve the laboratory quality, and ultimately improve patient care and safety. The report's purpose is not to blame or find fault, but to uncover the root cause and address the problem. Link this concept to the *Planning and Conducting a Staff Meeting* activity.
- Test reports for referred specimens should be archived in a similar manner as in-house test reports for easy access and availability.



Tool: Referral Log Answers

Answers to Referral Log Questions

1. What is the approximate turn-around time for the following tests:

   - AFB sputum (2 days)
   - Malaria smears (1 day)
   - CD4 (1 day)

2. Provide 2 reasons why Dr. Smith was notified under the "Notes" column.

   - Notification of a critical result (positive AFB)
   - Inform/Update Dr Smith regarding a laboratory accident

3. Why is this documentation important?

   Documentation provides proof that the required actions were taken.

4. List the patients with outstanding tests that require followed-up by your laboratory?

   Steve Clinton's AFB smears
   Miguel Pacheco's CD4 count

   Note: based upon the date of review, Tom Jones and Carol Rite's results are still pending but are not outstanding.

Worksheet 1: Referral Log Questions

Review Handout 1: Specimen Referral Log and answer the following questions.

1. What is the approximate turn-around time for the following tests:
   - AFB sputum _____
   - Malaria smears _____
   - CD4 _____

2. Provide 2 reasons why Dr. Smith was notified under the "Notes" column.

   _____

   _____

   _____

   _____

3. Why is this documentation important?

   _____

   _____

   _____

   _____

4. List the patients with outstanding tests that require followed-up by your laboratory?

   _____

   _____

   _____

   _____

Handout 1: Specimen Referral Log

Date of Review: 12/1/2008

Specimen #	Patient Name	Specimen Type	Referred to	Transported by	Date Transported	Date Returned	Results	Notes
32	Jones, Eileen	AFB -sputum	Mbabane	A.H.	3/1/2008	5/1/2008	negative	#A
32						5/1/2008	negative	#B
18	Smith, David	Malaria- 2 smears	Manzini	A.H.	3/1/2008	8/1/2008	lab accident-recollect	8/1/08 at 1445 called Manzini spoke with Laura, slides broke in lab, need to recollect. Dr Smith updated & patient notified at 1500 LJB *(initials of staff member)*
87	McCarthy, Tom	AFB-sputum	Mbabane	A.H.	4/1/2008	6/1/2008	negative	#A
87						6/1/2008	negative	#B
93	Roam, Shawn	CD4 - EDTA WB tube	Mbabane	L.S.	4/1/2008	5/1/2008	233 cells/mm3	
19	Clinton, Steve	AFB-sputum	Mbabane	L.S.	4/1/2008			#A
19								#B
25	Jones, Ann	CD4 - EDTA WB tube	Mbabane	A.H.	5/1/2008	6/1/2008	483 cells/mm3	
33	McCain, Elaine	Malaria- 2 smears	Manzini	L.S.	6/1/2008	7/1/2008	negative	
46	McCaine, Elaine	AFB-sputum	Mbabane	A.H.	6/1/2008	8/1/2008	3+	#A report called to Dr Smith 8/1/08 1452 LJB *(initials of staff member)*
46						8/1/2008	1+	#B
57	Pacheco, Miguel	AFB-sputum	Mbabane	A.H.	7/1/2008	9/1/2008	negative	#A
57						9/1/2008	negative	#B
6	Pacheco, Miguel	CD4 - EDTA WB tube	Mbabane	A.H.	7/1/2008			
15	Smith, David	AFB-sputum	Mbabane	A.H.	8/1/2008	10/1/2008	negative	#A
15							negative	#B
28	Pacheco, Miguel	Malaria- 2 smears	Manzini	C.C.	9/1/2008	10/1/2008	negative	
31	Smith, Susan	AFB-sputum	Mbabane	A.H.	10/1/2008	12/1/2008	8 AFB/field	#A report called to Dr Smith 12/1/08 1500 LJB *(initials of staff member)*
31							negative	#B
47	Jones, Tom	AFB-sputum	Mbabane	A.H.	10/1/2008			#A
47								#B
59	Rite, Carol	Malaria- 2 smears	Manzini	A.H.	11/1/2008			

Worksheet 2: Occurrence Report Form

DATE OF OCCURRENCE _____DATE OF REPORT_____

TIME OF OCCURRENCE _____ Requires immediate attention by manager __ Yes __No

PERSONNEL REPORTING OCCURRENCE _____

PATIENT'S NAME_____ PATIENT ID_____
(IF APPLICABLE) (IF APPLICABLE)P

PATIENT'S CLINICIAN _____

LOCATION OF OCCURRENCE _____

BRIEF DESCRIPTION OF OCCURRENCE _____

_____

_____

_____

_____

IMMEDIATE ACTION TAKEN (If any) _____

_____

CORRECTIVE ACTION PLAN _____

_____

_____

_____

FOLLOW-UP ACTION _____

_____

_____

_____

SIGNATURE OF REVIEWER _____ DATE _____

CLINIC DIRECTOR _____ DATE _____

Handout 2: Occurrence Report Example

DATE OF OCCURRENCE 4/1/08 **DATE OF REPORT** 12/1/08

TIME OF OCCURRENCE 1500 **Requires immediate attention by manager** __ **Yes** _X_**No**

PERSONNEL REPORTING OCCURRENCE Anna Murphy

PATIENT'S NAME Clinton, Steve (IF APPLICABLE) **PATIENT ID** 19 (IF APPLICABLE)P

PATIENT'S CLINICIAN Dr Angelina Smith

LOCATION OF OCCURRENCE in car as specimen was being transported to Mbabane Laboratory

BRIEF DESCRIPTION OF OCCURRENCE Upon reviewing the Specimen Referral Log, the patient's AFB result was overdue (normal TAT – 2 days). The Mbabane Laboratory was contacted (12/1 at 1125- Sue Haverly) inquiring about the test result availability. Sue explained that there is no record of her laboratory receiving this specimen. I spoke with Lisa Sims ,the day driver, at 1155. Lisa looked in the transport car and found the specimen under the driver's seat. The specimen is no longer acceptable for testing

IMMEDIATE ACTION TAKEN (If any) I contacted Steve Clinton on 12/1/08 at 1300 to explain that the specimens must be recollected due to a laboratory accident. Dr Smith, the ordering provider, was contacted at 1330 to update him regarding the test request and that the patient is planning to arrive tomorrow to obtain the specimen cups required for recollection. I completed the test report for the specimen indicating, "No result available due to a laboratory accident. Please accept our apology" and included the documentation regarding patient /doctor notification. I created a new requisition and gave it to the phlebotomy area to complete when Mr. Clinton returns with his specimens. All laboratory logs have been updated with "no result available" and the supporting documentation.

CORRECTIVE ACTION PLAN The specimen, when given to the driver, was not placed in a secure location allowing the specimen to fall off the seat. The laboratory will begin transporting all specimens in a transfer box. It is recommended that the cooler boxes received from previous hematology control shipments be used since they are the appropriate size and will better preserve all specimens during transport. Each driver will receive a transport box. The Specimen Referral SOP will be updated to reflect this change.

FOLLOW-UP ACTION Since this is a unique occurrence, no further changes will be implemented at this time. If this problem continues, then a transmittal slip will be created that must be signed by the receiving laboratory and returned by the driver on the same day.

SIGNATURE OF REVIEWER H. Hines **DATE** 13/1/08
CLINIC DIRECTOR _____ **DATE** _____