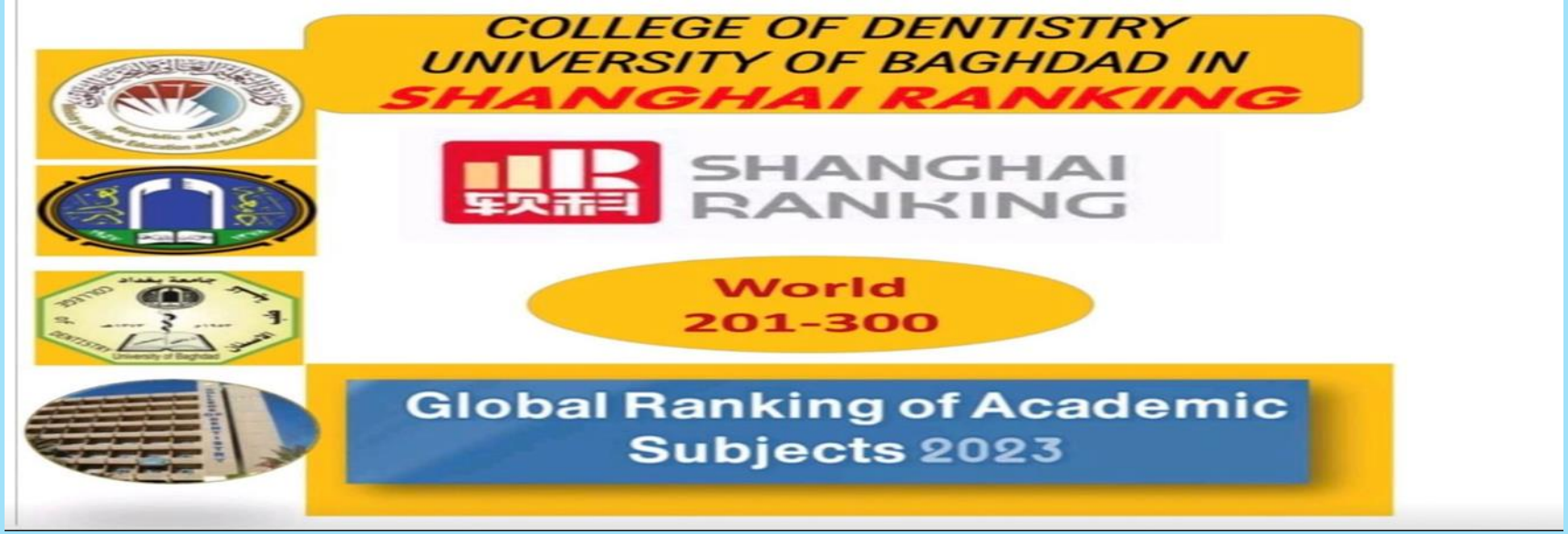

Sample collection for microbiological investigation

Workshop

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LIQUID BASED MICROBIOLOGY
Simplify Sample Collection · Reduce Costs · Improve Patient Care
COPAN

Demonstration of pathogenic organisms in the patient specimen is the most definitive test in microbiology. However, failure to demonstrate pathogens in a single specimen is NOT definitive and may only indicate that:

The pathogen was absent or scant in that particular specimen;

The sample was taken at a stage of the disease when the pathogen was rare;

Viability was lost between the times of collection and arrival in the laboratory;

The pathogen cannot be detected by this method of testing.

Specimens for culture MUST be collected properly prior to the initiation of antibiotic therapy to insure optimal conditions for the recovery of pathogens.

The laboratory will identify isolates and perform antibiotic susceptibility testing where appropriate.

Anaerobic and blood cultures are not available through the Public Health Lab.

TESTS OFFERED

* Group A beta strep screening
* Urine Culture & Sensitivity
* Respiratory Culture & Sensitivity
  - _Nasopharyngeal
  - _ Sputum
* Stool Culture
* Genital Culture
  - _ Cervical
  - _ Urethral
* Wound & Miscellaneous Culture & Sensitivity
  - _Wounds
* Ear
* Eye
* Nose
* Tissue

SAMPLE COLLECTION, HANDLING AND TRANSPORT

Collection kits are available for routine cultures upon request. Each kit contains a transport system composed of a sterile swab and transport medium.

Herpes/Viral/Flu/Pertussis Collection Kit

Bacterial Stool/Urine Collection Kit

RESPIRATORY TRACT SPECIMENS:

Group A Beta Strep Screen or Complete Throat Culture

Collect specimen under good lighting. Depress the tongue with a tongue blade and pass the swab firmly over the back of the patient's throat, tonsils or tonsillar fossae and any area of inflammation and or exudation.

Return the swab to the transport tube and break the media ampule at the base of the tube to moisten the swab.

Label the swab transport tube with patient name.

Complete the requisition form or order test directly in LIMS.

Place specimen and requisition in pouch for pickup by lab courier or arrange to have specimen taken to a courier pickup site. Contact the laboratory for a list of pickup sites.

DO NOT mail specimen.

Nasopharyngeal Culture:

For nasopharyngeal cultures, a special culturette containing a small tipped swab on a flexible wire is required and may be obtained by contacting the laboratory.

1.Collect specimen under good lighting. Bend the wire of the nasopharyngeal swab into a semi circle and pass through the nostril to the pharynx, scrub back and forth gently 2 3 times and remove.

2.Return the swab to the transport tube and break the media ampule at the base of the tube to moisten the swab. Please follow the manufacturer's directions.

3.Label the swab transport tube with a unique patient identifier.

4.Complete the requisition form or order test directly in LIMS.

5.Place specimen and requisition in pouch for pickup by lab courier or arrange to have specimen taken to a courier pickup site. Contact the laboratory for a list of pickup sites.

DO NOT mail specimen.

Sputum Culture:

An early morning specimen is recommended. A volume of 5 to 10 ml is adequate and there is no advantage in collecting a larger volume. The sample should contain recently discharged material from the bronchial tree with minimal saliva content.

1.Upon rising in the morning, rinse mouth well with water (not mouthwash).

2.Inhale as deeply as possible. Expectorate into sputum collection container, available from the Laboratory, while coughing as deeply and vigorously as possible.

3.Tightly cap container so no spillage occurs.

4.Wash and dry outside of container and label the SPECIMEN CONTAINER with name and date and time of collection.

5.Complete the requisition form or order test directly in LIMS.

6.Place form and specimen container in pouch for pickup by lab courier or arrange to have specimen taken to a courier pickup site. Refrigerate specimen while waiting for pickup. Do not mail specimen. Specimens must be processed by the laboratory within 24 hours.

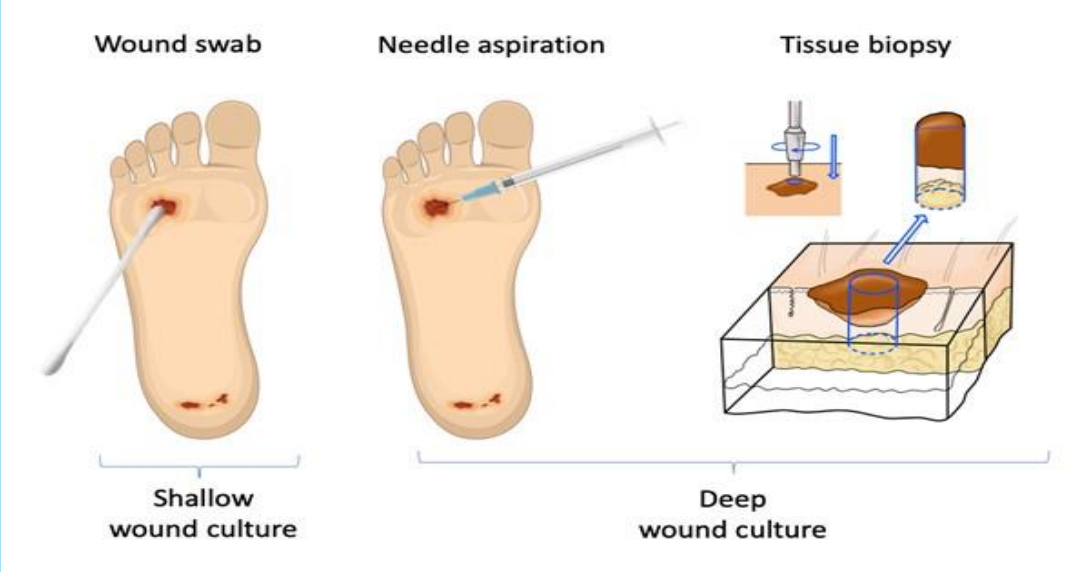
7.If more than one specimen is requested (for example, 3 AFB cultures are requested), collect only one specimen per day, first thing in the morning. Have specimens delivered to the Laboratory DAILY. Do not wait until all three have been collected.

WOUND AND MISCELLANEOUS SPECIMENS

Culturettes and requisition slips are available for routine cultures from the Division of Public Health Laboratory upon request.

1.Collect specimen under good lighting. Pass the swab firmly over or into an area of suspected infection and obtain a sample of exudate, drainage, or purulent discharge if these are present.

2.Return the swab to the transport tube and break the media ampule at the base of the tube to moisten the swab.



3.Label the swab transport tube with a unique patient identifier.

4.Complete the requisition form or order test directly in LIMS. Indicate the area of the body from which wound specimen was taken to assist in distinguishing normal from abnormal flora (ears, legs, etc).

5.Place specimen and requisition in pouch and promptly deliver to lab pickup site. DO NOT mail specimen.

** NOTE: Specimens collected on culturettes should be delivered to laboratory within 24 hours in order that they be plated ASAP after collection. Culturettes 24-72 hours old are acceptable if refrigerated.

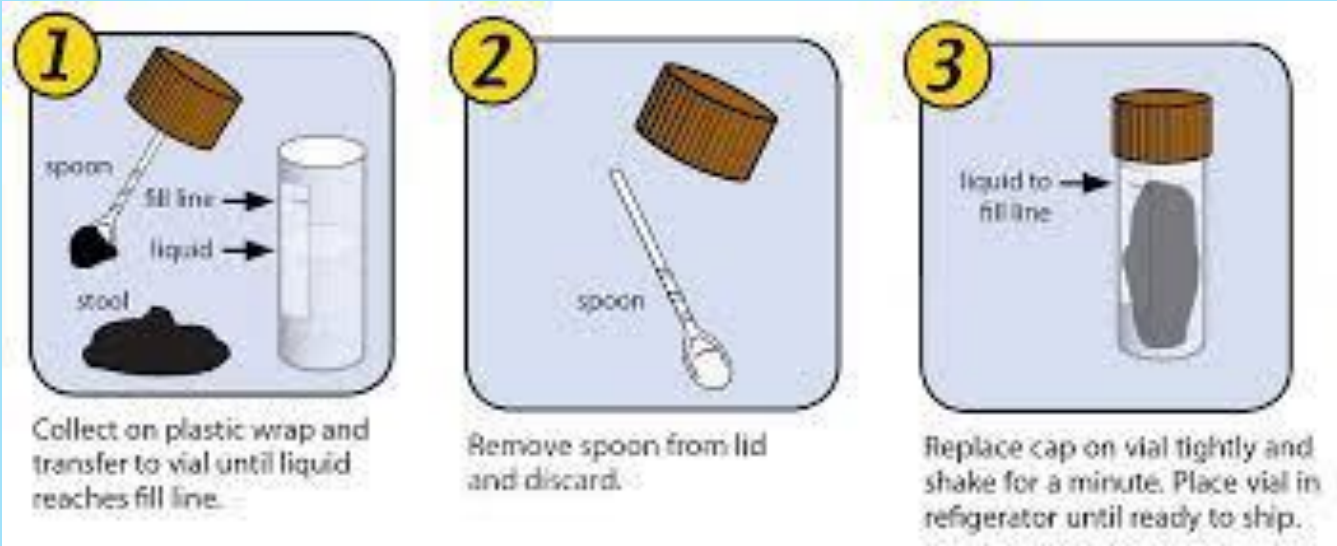
TISSUE

Handle in same manner as Miscellaneous specimens above; however, instead of culturette, place tissue specimen in sterile container with a small amount of sterile saline or sterile water to keep specimen from drying out. Be sure container is labeled with name of patient and source of specimen.

STOOL SPECIMENS

The recovery of bacterial pathogens from fecal specimens will help confirm the diagnosis of bacterial gastroenteritis as manifested by diarrhea and/or dysentery. DPHL routinely screen stools for Campylobacter, Salmonella, Shigella, and Shigatoxin E.coli. If other pathogens are suspected please indicate on request form. Norovirus cannot be tested by stool culture but can be detected by real time PCR molecular methods.

For Norovirus stool collection - collect teaspoon size sample in sterile leak-proof container with no preservatives along with test requisition form. Store samples in refrigerator at 3-9 degrees Celcius.



1.Obtain a collection kit containing Cary Blair transport media from this laboratory.

    1.NOTE: The enteric kits have an expiration date. If kits are expired,return them to this laboratory for replacement.

2.Collect feces from patients as soon after onset of illness as possible, and before the start of treatment. Specimens may be obtained by covering the rear half of the toilet rim below the seat with plastic kitchen wrap to catch feces.

3.Transfer a sample (no more than one ounce) of the specimen using the spatula attached to the container lid into the Cary Blair medium supplied in the kit and mix thoroughly. Dispose the unused specimen in the toilet, rinse the plastic in the toilet and dispose in the trash.

4.For liquid stool specimens, no more than 10 ml (1/3 oz) should be added to the Cary Blair medium and mixed.

5.Complete the requisition form or order test directly in LIMS.

6.Place the specimen and requisition form in the transport pouch and arrange for courier pickup. DO NOT mail. Specimens must be processed by the laboratory within 72 hours of collection.

* **NOTE:** Do not ship stool cultures without using the Cary Blair transport medium.

7.If a rectal swab is used, be certain to insert swab past the sphincter muscle (1 1.5 inch) to obtain a fecal specimen. Place swab into Cary Blair and break off upper stem so that lid can be replaced for shipping. Proceed with shipment of specimen as above

URINARY TRACT SPECIMENS

The lower third of the male urethra and the labia surrounding the female urethra are normally colonized by large numbers of bacteria, some potentially pathogenic. Urine is normally sterile but is an excellent culture medium for the rapid growth of bacteria. Failure to cleanse the patient properly around the urethra prior to obtaining a specimen will result in contamination and bacterial overgrowth of the urine sample.

1.Obtain a URINE CULTURE COLLECTION KIT from the laboratory.

2.Collect clean catch specimen according to directions listed below, or as detailed in your own procedures.

3.Complete the requisition form or order test directly in LIMS.

4.Place completed form and specimen in transport bag, transport to lab pickup site and REFRIGERATE. DO NOT mail. Specimens should be delivered to the laboratory within 24 hours for processing.

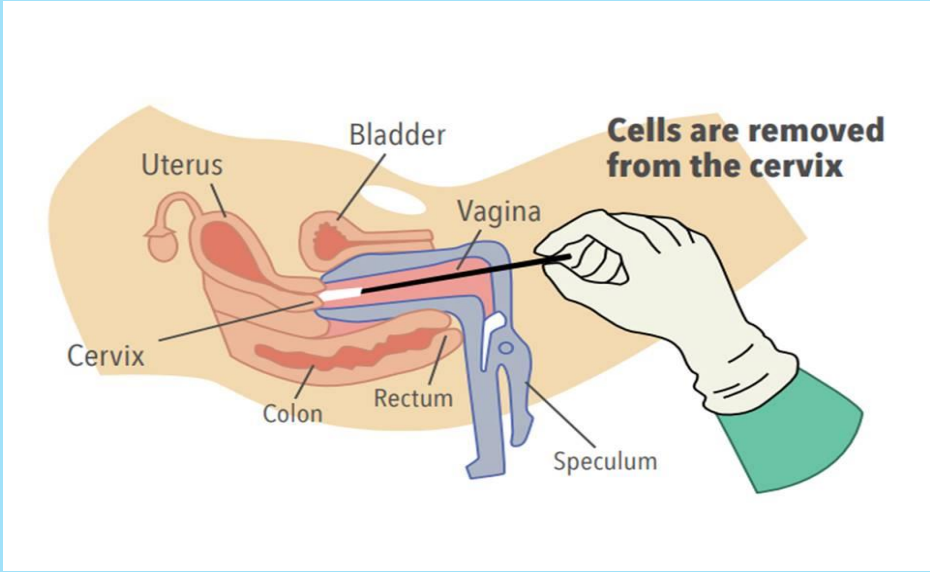
Urine Culture Collection

1. Wash hands with soap and water, rinse and dry.
2. WASH area around urethra with soap.
3. RINSE area with warm water.
4. VOID- Pass the first portion of urine into the toilet and then pass a portion (1 ounce) of the remaining urine into a sterile container. Pass the rest of the urine into the toilet, close and label the container with name and date. Store samples in refrigerator

GENITAL TRACT SPECIMENS

1.Use swab to obtain a sample of endocervical, vaginal, or urethral discharge. Return the swab to the transport tube and break the media ampule at the base of the tube to moisten the swab. Please follow the manufacturer's directions.

2. Label the swab transport tube with the patient's name. Complete the requisition form or order test directly in LIMS.



3.Place specimen and requisition in pouch and transport to the lab pickup site for pickup by lab courier. DO NOT mail specimen.

4.Special media and transport containers are required when culturing for gonorrhea. Contact Clinical Micro section of the laboratory for further instructions


Thank you