

## **MICROBIOLOGY COLLECTION**

### ***Check Before You Collect!***

This section contains detailed instructions for collecting specimens for bacterial and parasite detection listed alphabetically by test. Instructions for fecal occult blood test collection are also included. Always check specific test requirements before collecting a specimen for testing.

### ***Gram Stains***

If you would like a gram stain that is normally included with a routine culture to be read and reported immediately, please order a separate STAT gram stain procedure.

### ***Transport Cultures ASAP***

A specimen for culture should be transported to the laboratory and *setup the same day it is collected*. We recommend scheduling your collection of culture specimens to coincide as closely as possible to your courier pickup time. Even those specimens collected in a transport system with a preservative (such as Culturette® swab) may be subject to any of the following problems if more than 18 hours elapses between specimen collection and processing:

- Deterioration of cellular components of the specimen
- Inability of fastidious organisms to survive and be isolated and identified.
- Overgrowth of more hardy bacteria, including normal flora
- Prolonged contact of microorganisms with anti-microbial agents in the specimen, which may lead to false-negatives.
- Delay in providing information about the infectious disease process.

For quality assurance and accreditation purposes, we have established and adhere to specimen acceptability criteria for all specimens. Therefore, specimens collected 24-48 hours prior to laboratory receipt will be flagged with the following disclaimer: “Specimen received after prolonged delay. Culture results may be unreliable.” If a specimen for culture is collected more than 48 hours prior to laboratory receipt, the Microbiology Department will reject the specimen due to questionable specimen integrity. Our policy is to verify collection dates when not provided on the requisition; we ask for you to assist us by providing an accurate time and date of specimen collection and source information, where applicable.

### ***Containers***

To help you choose the correct container for your culture, check photos and descriptions in the Container Guide, Non-Blood.

## **ACID-FAST BACILLI (AFB) CULTURE & SMEAR**

### *Special Patient Preparation Required*

For sputum collection, the patient should be instructed to remove dentures (if applicable), rinse mouth and gargle with water. The patient should then be instructed to cough deeply and expectorate sputum into proper container. If patient is unable to produce sputum, sputum induction may be effected by postural drainage, saline nebulization, or chest percussion.

### *AFB Culture; Specimen Type*

- Biopsy, tissue, fluids or scrapings (pleural, peritoneal, pericardial, synovial, ascitic, thoracentesis, prostatic, CSF, skin, lesions, bronchial brush, wound or abscess): Collect in a sterile leak-proof cup or vial. Minimum volume for fluids is 1 ml.
- Sputum or bronchial, tracheal, transtracheal aspirate or wash: Collect a minimum of 5 ml. in a sterile leakproof cup. A first morning sputum is the specimen of choice. 24-hour sputum collections and swabs of sputum are *unacceptable*.
- Urine: Collect a minimum of 5 ml. in a sterile leak-proof cup. A first morning urine is specimen of choice. 24-hour urines are *unacceptable*. □ Bone marrow: Collect in a SPS vacutainer OR sterile leak-proof container. □ Specimens collected on swabs *will be rejected*.

### *Storage/Transport Instructions*

- Refrigerate fluids, bronchial/tracheal/trans-tracheal aspirates, sputum, urine, bone marrow, biopsy/tissue, CSF, and scrapings.
- Bone marrow collected in SPS tube should be kept at room temperature.
- Blood should be kept at room temperature, and preferably in 2 SPS tubes. For collection procedure, see “Blood Collection for Acid Fast Bacilli or Fungus.”

### *Additional Comments*

- Optimal isolation of mycobacteria from tissue is accomplished by processing as much tissue as possible.
- Fluid, not swabs of fluid, should be submitted to the laboratory for testing.
- Three sputum specimens, collected on 3 *consecutive* days are optimal for isolation of Mycobacteria.
- Cultures are more sensitive than smears; therefore, the smear may be negative when the culture is positive.

## **ANAEROBE CULTURE AND SMEAR**

### *Specimen Type*

Anaerobic bacteria form a major part of the body's normal flora. For this reason, extreme care must be taken to avoid contamination by anaerobic normal flora and overgrowth by coexisting aerobic bacteria. In general, specimens for anaerobic culture should be obtained by closed puncture aspiration into a sealed container under strict aseptic conditions, and transported to the laboratory. Swabs from abscess cavities that have been incised under aseptic conditions may be used if immediately placed in an anaerobic environment, realizing that when feasible, tissue and aspirated material are the perfect specimens. Soft tissue infections may be cultured by injections of 1 to 2 ml. of sterile saline into the infected site with withdrawal of the saline and tissue juice into the syringe that is immediately injected into an anaerobic transport media. A minimum of 0.5ml of a fluid specimen is acceptable. See Table below for collection methods appropriate to various sources.

*UNACCEPTABLE* for anaerobic culture because of contamination by normal flora: catheter tips; superficial skin lesions; skin ulcers; surgical drain sites; voided or catheterized urine; sputum; single-channel bronchoscope or gastric washings; prostatic, vaginal, or cervical secretions; any area with fecal contamination; throat, nasopharyngeal or gingival swabs; expectorated sputum; sputum obtained by nasotracheal suction; large bowel contents; feces.

*Storage/Transport Instructions*

All specimens for anaerobic culture and smear must be placed immediately into an anaerobic transport container. Store/transport at room temperature. DO NOT REFRIGERATE.

*Anaerobic Specimen Collection Methods*

<b>SOURCE</b>	<b>METHOD</b>
Lower respiratory secretions	Percutaneous transtracheal aspiration
Any closed abscess	Aspiration by needle syringe
Urine	Suprapubic needle aspiration of bladder
Sinus tract, uterine cavity, deep wound	Syringe aspiration using plastic intravenous type of catheter threaded into infected site*
Tissue	Aseptic surgical excision

\*After prior decontamination of surface with proper antiseptic

*Additional Comments*

It is recommended that a routine bacterial culture be ordered in addition to the anaerobic culture. (See “Bacterial Culture, Routine” for instructions).

**BACTERIAL CULTURE, ROUTINE**

*Special Patient Preparation Required*

For wound/abscess sites: avoid antimicrobial administration until after specimen is obtained. Other specimen sites require no special preparation.

*Specimen Type*

- Biopsy, tissue, catheter tip: Sterile leak-proof cup.
- Fluids (bone marrow, ascitic, joint, pericardial, peritoneal, pleural, prostatic, synovial, thoracentesis): Sterile leak-proof cup or tube, minimum volume 0.5 ml.
- Swabs, scrapings (ear, eye, pus or other material properly obtained from a wound site or abscess): Sterile bacterial Culturette swab transport system. Swab ampule must be crushed after inoculation to insure proper preservation of the specimen.
- Cultures from surgical or anatomical pathology are UNACCEPTABLE if the tissue has been fixed in formalin or some other preservative, with the exception of a large piece of tissue which has been exposed to formalin for less than one hour.
- For other specimen sites, see Acid fast Bacilli, Anaerobe Culture, Blood Culture, Bordetella pertussis Cerebrospinal Fluid Culture, Chlamydia trachomatis, Clostridium difficile, Fungal Culture, Genital Culture, MRSA Carrier Screen, Neisseria Culture, Respiratory Culture, Stool culture, Strep Culture, Throat Culture, Urine Culture.

*Storage/Transport Instructions*

Store/transport to Laboratory at room temperature.

*Additional Comments*

- If anaerobes are suspected, an anaerobic specimen should be collected and submitted (See Anaerobic Culture for information).
- The source of the specimen *must* be indicated on the requisition and specimen container.
- If MRSA is suspected, identification may be accelerated if order comment states ‘MRSA Suspected’.

**BLOOD CULTURE, BACTERIAL**

*Special Patient Preparation Required*

See “Bacterial Blood Culture Collection Procedure” below.

*Specimen*

**Adults**—For each blood culture set, collect 10ml.-20 ml. blood to divide between aerobic bottle (blue cap) and anaerobic bottle. Minimum volume =5ml per bottle (10ml per bottle recommended). If less than 10 mm. is drawn, place the total volume of blood into aerobic (blue cap) bottle only.

**Children** (age 12 and under)—1ml.-4 ml. blood in a single aerobic (blue cap) blood culture bottle.

*Storage/Transport Instructions* The Microbiology Laboratory *must* be notified if Brucella is expected. Keep at room temperature. DO NOT REFRIGERATE.

*Additional Comments*

- Collect 2 sets of cultures from separate venipuncture sites. As a general rule, do not collect more than 2 blood culture sets in one 24-hour period.
- All positive blood cultures are reported to the client/physician by phone.

***Bacterial Blood Culture Collection Procedure:***

*Materials:*

Gloves	1 set Blood culture bottles:	Needles
Alcohol preps	Aerobic (Blue Cap)	Syringes
Blood Culture Prep Kit II	Anaerobic (Maroon Cap) Syringes Blood	Gauze
	OR 1 Pediatric bottle (Yellow Cap)	

***STEP 1: Chloraprep One-Step Frepp***

- Locate the vein to be used
- Remove Frepp from kit; hold in a horizontal position, and pinch handle once to break ampule. Do not continue to squeeze handle.
- Place sponge on selected venipuncture site and depress once or twice to saturate sponge.
- Scrub vigorously for 30 seconds and allow to dry.

*STEP 2: Determine Collection Methods & Quantity*

Adult

- Disinfect top of culture bottles with alcohol and let dry. **DO NOT USE BETADINE on culture bottles.**
- Use a sterile syringe and needle to draw 20cc of blood.
- Aseptically transfer 10cc blood to the aerobic (blue) bottle and 10cc blood to the anaerobic (maroon) bottle.

Children (Age 0-12)

- Minimal draw 1 cc, maximum 4 cc. Use a sterile syringe and needle to collect blood.
- Disinfect top of an aerobic (blue cap) culture bottle with alcohol and let dry. **DO NOT USE BETADINE on culture bottles.**
- Remove collection needle and attach a sterile large gauge needle to transfer the blood to the culture bottle by piercing the stopper.

Catheter Sampling

- Collection of blood cultures via catheters **IS NOT** recommended because of potential contamination. However, when no other sites are available, prepare site for injection/collection using sterile technique for obtaining specimens.

*STEP 3: Labeling – All blood culture bottles must be labeled with:*

- Patient's name
- Date and time of draw
- Number of blood cultures
- Site of draw
- Initials of the person who collected the specimen.

*STEP 4: Remove the Betadine from the arm with a clean alcohol wipe and band aid patient's arm.*

*STEP 5: Deliver specimens to laboratory at room temperature. If bottles are glass, wrap in soft packaging, foam or paper for transport.*

**BLOOD CULTURE FOR ACID FAST BACILLI OR FUNGUS**

*Special Patient Preparation Required*

See "Fungal Blood Culture Collection Procedure" below.

*Specimen*

Blood, minimum volume 10 ml.

*Storage/Transport Instructions*

Deliver specimen to the lab at room temperature.

***Fungal Blood Culture Collection Procedure***

*Materials:*

Gloves	Blood Culture Prep Kit II	SPS yellow top tubes –2 tubes per culture
Alcohol Preps	Needle & Vacutainer adapter	Gauze

### *STEP 1: Chloraprep One-Step Frepp*

- Locate the vein to be used
- Remove Frepp from kit; hold in a horizontal position, and pinch handle once to break ampule. Do not continue to squeeze handle.
- Place sponge on selected venipuncture site and depress once or twice to saturate sponge.
- Scrub vigorously for 30 seconds and allow to dry

### *STEP 2: Venipuncture Collection*

- Disinfect top of “SPS” tube with an alcohol pad and let dry. Next cleanse the top of the “SPS” with Betadine and let dry.
- Using a vacutainer adapter and a sterile needle collect blood directly into the “SPS” tubes. A volume of 20 cc should be collected.
- Invert the tube several times to assure proper mixing of the blood.
- Blood Sampling from Catheters IS NOT recommended because of potential contamination. However, when no other sites are available prepare site for injection using sterile technique to obtain specimens.

### *STEP 3: Label*

All “SPS” tubes must be labeled with the patient’s name, date, time of draw, number of AFB cultures and your initials. Remove the Betadine from the patient’s arm with a clean alcohol wipe and bandage the patient’s arm.

## **Bordetella Pertussis PCR**

### *Specimen Type*

Nasopharyngeal swab. Use Liquid Amies NP swab. Insert tip through a speculum into nasopharynx. The swab should be rotated gently and maintained in the nasopharynx for at least 15 seconds (See collection Graphic at the end of this section).

### *Specimen Collection*

Rotate swab in nasopharyngeal cavity for at least 15 seconds.

### *Storage/Transport Instructions*

Please provide SPECIMEN SOURCE. Specimens should be transported STAT to microbiology at room temperature.

## **CEREBROSPINAL FLUID, CULTURE & SMEAR**

### *Specimen Type*

1ml or more is desirable for routine bacterial culture; 0.5 ml minimum in a sterile tube with screw cap. Cotton-plugged or rubber-stopper type tubes should **NOT** be used. Snap-top containers should be checked to see that a tight seal does occur.

*Storage/Transport Instructions* Transport to the Laboratory *immediately*. The specimen should remain at room temperature. **DO NOT REFRIGERATE.**

## **CHLAMYDIA TRACHOMATIS / NEISSERIA GONORRHEA BY PCR (CERVICAL/URETHRAL SWAB)**

### *Females:*

1. Insert swab into the endocervical canal and rotate 3-5 seconds, OR insert approx. 5 cm (2 inches) into the vagina and swab the vaginal wall.
2. Withdraw swab and transfer to the Abbott *multi*-Collect transport media tube, tip down. Break off the swab handle, leaving swab tip in liquid.
3. Screw cap securely and label tube with appropriate patient information, specimen source, date and time of collection. Store/Transport at room temperature or refrigerated. Stable 14 days.

### *Males:*

1. Instruct patient not to urinate at least 1 hour prior to sampling. Insert a small sterile swab 2-4 cm. into the urethra. Rotate 3-5 seconds.
2. Withdraw swab and transfer to the Abbott *multi*-Collect transport media tube, tip down. Break off the swab handle, leaving swab tip in liquid.
3. Screw cap securely and label tube with appropriate patient information, specimen source, date and time of collection. Store/Transport at room temperature or refrigerated. Stable 14 days.

## **CHLAMYDIA TRACHOMATIS / NEISSERIA GONORRHEA BY PCR (URINE)**

### *Specimen Type and Collection*

Voided first-stream urine. Instruct patient not to urinate at least 1 hour prior to sampling. Instruct the patient to collect the **first** 10-50 ml. of urine stream into a sterile urine collection cup. Using the disposable pipette supplied with the Abbott *multi*-Collect kit, aseptically transfer urine into the transport media vial until the top of the liquid is visible in the side window of the tube label. Screw cap securely and label specimen. Store/Transport at room temperature or refrigerated. Stable 14 days.

### *Specimen Type*

Fresh stool. 4cc soft or liquid stool collected in a sterile leak-proof container. Store/Transport REFRIGERATED (See Patient Instruction flyer).

### *Unacceptable Specimens*

Specimens left at room temperature, specimens collected in preservative vials, and formed stool will be rejected.

## **CLOSTRIDIUM DIFFICILE TOXIN BY PCR**

### *Specimen type:*

5 grams of unformed or liquid stool. Form stool is not acceptable. Specimen must be collected in a clean leak proof cup.

### *Storage /Transport instructions:*

24 hours at room temperature, or 5 days refrigerated

## **FUNGAL CULTURE AND SMEAR**

### *Specimen Type*

- Biopsy, Tissues, skin scraping, nail clippings, whole nail, debris under nail, hair: Collect in a sterile cup with no preservatives. Refrigerate.
- Fluid (pleural, peritoneal, pericardial, synovial, ascitic, thoracentesis, joint, bronchial aspirate or wash, bronchial brush, tracheal/transtracheal aspirate, CSF, exudates, sputum, urine, abscess fluid): Collect in a sterile leak-proof cup or vial (minimum volume: 0.5ml). Refrigerate.
- Swabs: (conjunctiva, corneal scraping, throat, wound abscess, vaginal, cervical): Collect with sterile bacterial Culturette swab transport system. Store/transport at room temperature.
- Bone marrow: Transfer to an SPS vacutainer OR sterile leak-proof container. Store/transport at room temperature.
- Stool specimens are *Unacceptable*.

### *Additional Comments*

- Smear will not be performed on blood, bone marrow, or hair.
- Optimal isolation of fungi from tissue is accomplished by processing as much tissue as possible.
- Fluid, rather than a swab of fluid, should be submitted to the laboratory for optimal yield.
- A single negative culture does not rule out the presence of fungal infection.
- If *Cryptococcus neoformans* is suspected, a CSF Cryptococcal Antigen test is recommended.
- If coccidioides is suspected, the laboratory should be notified; extreme hazard to personnel; this organism may grow rapidly.
- Cultures are more sensitive than smears; therefore, the smear may be negative when the culture is positive.

## **GC CULTURE**

See Neisseria Gonorrhoea Culture

## **GENTAL CULTURE, NON-VAGINAL**

### *Specimen type:*

Swab of Cervical or Endocervical site only. Use Culture Swab Plus with Amie's media.

### *Storage /Transport instructions:*

Store at room temperature for up to 24 hours

## **GENTAL GROUP B STREP CULTURE**

### *Special Patient Preparation Required*

Do not use lubricant on speculum.

*Specimen Type* Swab of vaginal-rectal specimen in Amies transport media. *Cervical swab is not acceptable.*

*Storage/Transport Instructions*

Store/transport at room temperature. DO NOT REFRIGERATE. Stability 24 hrs.

*Additional Comments*

Culture will be screened for group B beta-hemolytic strep only. No other organisms will be noted on the final report.

## **GENTAL PEDIATRIC VAGINAL CULTURE**

*Special Patient Preparation Required*

For female patients under 12 yrs of age.

*Specimen Type*

Vaginal swab in Amies transport media.

*Storage/Transport Instructions*

Store/transport at room temperature. DO NOT REFRIGERATE. Stability 24 hrs.

## **GENTAL VAGINOSIS SCREEN**

*Specimen Type*

Double-swab system in Stuarts transport media. Insert both swabs about 5 cm into the vagina and swab the vaginal wall for about 3-5 seconds. Insert both swabs into the sample tube.

*Storage/Transport Instructions*

Store/transport at room temperature. DO NOT REFRIGERATE. Stability 24 hrs.

*Additional Comments*

Detects Trichomonas, yeast and bacterial vaginitis.

## **GIARDIA/CRYPTO ANTIGEN STOOL**

*Specimen type:*

Stool collected in Total-Fix transport media vial. See Patient Collection Instructions in the Lab User manual or at [www.emhreflab.org](http://www.emhreflab.org)

Swabs specimens or specimens received in diapers are unacceptable.

*Storage /Transport instructions:*

Deliver to the lab within 72 hours of collection.

## **GI PANEL**

### *Specimen type:*

200 ML OF STOOL IN Clary Blair Stool Culture Transport vial. See Patient Collection Instructions in the Lab User manual or at [www.emhreflab.org](http://www.emhreflab.org).  
Swabs specimens or specimens received in diapers are unacceptable

### *Testing includes:*

Camphylobacter, C.diff toxin A/B, Plesiomonas shigelloides, Salmonella, Vibrio, Yersinia enterocolityca, pathogenic E.coli including O157, Shigella, Adenovirus, Astrovirus, Norovirus, Rotavirus, Sapovirus, Cryptosporidium, Cyclospora, Entamoeba histolitica, and Giardia

### *Storage /Transport instructions:*

Deliver to lab at room temperature within 96 hours of collection.

## **GRAM STAIN, SMEAR**

### *Specimen*

Follow all instructions for collection of specimen appropriate for routine culture of the specific site. Submit specimen in a sterile specimen container, sterile tube, or swab transport system.

### *Additional Comments*

Organism isolation and identification on specimens submitted for gram stain will only be performed if a culture is also requested.

## **MRSA CARRIER SCREEN, CULTURE OR PCR**

### *Special Patient Preparation Required*

Avoid using nasal sprays before culturing. Clear excess mucous from both nostril.

### *Acceptable Specimen*

Nasal swabs only. Must specify source as 'Nasal'.

### *Specimen Collection Container*

For Culture: Culture swab with Liquid Stuarts or Amies media For PCR: Culture swab with Liquid Stuarts  
ONLY

### *Collection, Storage and Transport Instructions*

Insert the culture swab 1 inch into one nostril and roll it against the nasal membrane 5 times. Remove the swab from the first nostril, and using the same swab, repeat in the second nostril. Insert the swab into BBL Liquid Stuart media. Store and Transport Refrigerated.

## NEISSERIA GONORRHEA ANTIGEN

See Chlamydia Trachomatis / Neisseria Gonorrhoea by PCR

## NEISSERIA GONORRHEA CULTURE (GC CULTURE)

### *Special Patient Preparation Required*

Genital cultures in females should be obtained via speculum under direct observation. DO NOT use lubricant on speculum.

### *Specimen Type*

Swabs from endocervical, vaginal, urethral, genital lesions, urethral discharge, throat or eye sources collected with a sterile bacterial Culturette. Ampule in the Culturette must be broken to release transport media after the specimen has been collected.

### *Storage/Transport Instructions*

Store / transport specimen at room temperature. DO NOT REFRIGERATE

### *Additional Comments*

GC culture screens for Neisseria gonorrhoea ONLY. No other organism will be included on the report.

### *Special Patient Preparation Required (See also Patient Instruction flyer).*

- DO NOT collect samples during, or until three days after menstrual period, or while patient has bleeding hemorrhoids or blood in urine.
- Follow the Special Diagnostic Diet instructions below for at least 72 hours before collecting the first stool sample. Remain on this diet until collection of all three slides (or whatever number of slides specified by physician) has been completed.
- Each occult blood slide should be prepared from separate bowel movements collected on different days.

### *Foods to Eat*

- Well-cooked pork, poultry and fish □ Any cooked fruits and vegetables □ High fiber food (i.e., whole wheat bread, bran cereal, popcorn)

### *Food, Vitamins and Drugs to AVOID:*

- Red meat (beef, lamb), including processed meats and livers □ Any raw fruits and vegetables (especially melons, radishes, turnips and horseradish)
- Aspirin or other non-steroidal anti-inflammatory drugs (avoid 7 days prior to and during the test period) □ Vitamin C in excess of 250 mg/day.  
Some iron supplements contain vitamin C, which may exceed the limit for this Special Diagnostic Diet. Please consult physician if this or any part of the special diet is a problem.

### *Specimen Type*

Stool applied to an Occult Blood card, or bulk stool in leak-proof stool container.

### *Storage/Transport Instructions*

Store/transport at room temperature in a closed plastic ziplock bag.

### *Additional Comments*

- Occult blood cards with applied specimen are stable for up to 14 days. □ Protect slides from moisture, heat, light and volatile chemicals (i.e., iodine or bleach).
- Keep cover of slides closed when not in use.

## **OVA AND PARASITE EXAM**

### *Special Patient Preparation Required*

Wait one week or more after barium procedures or barium laxatives before collecting stools for examination.

### *Specimen Type*

Stool sample preserved in a Total-Fix O&P vial (Black top). Specimens obtained with a warm saline enema are acceptable. A dose of Epsom salts or a glycerin suppository to aid elimination is acceptable for stool specimen collection.

### *Specimens Unacceptable for O & P*

Specimens obtained with mineral oil, bismuth, iron, or magnesium compounds are UNACCEPTABLE. Diapers are UNACCEPTABLE; if a specimen must be collected from a child in diapers, it is acceptable to line the diaper with plastic wrap.

### *Specimen Collection*

Using the spoon provided in the cap of the Total-Fix vial, select an appropriate (i.e. bloody, slimy, watery) area of the stool to sample. Sufficient specimen should be added to each vial to bring the liquid level up to the “fill to here” line. Tighten and shake firmly to ensure that the specimen is adequately mixed. When mixing is complete, the solution should appear homogeneous. (See Patient Instruction flyer).

### *Specimen Storage & Transport*

Store in ziplock bag at room temperature. Transport to lab within 3 days of collection.

### *Additional Comments*

- Recommended screening procedure is three random stool specimens; one per day on different days.
- If a Clostridium difficile toxin is also ordered, refrigerate a portion of stool specimen in a sterile leak-proof container (see instructions for c. difficile).
- It is not recommended to perform O & P testing on stools from patients who develop diarrhea in the hospital. After four days in the hospital, testing is not advised and the physician may want to consider testing for Clostridium difficile toxin.

## **PARASITE EXAM, MACROSCOPIC**

### *Specimen Type*

Gross arthropod or skin scrapings collected in a screw cap tube or screw cap jar. Arthropods (gross) are to be submitted in saline or alcohol (70%) in a tube or container with secure closure. (If saline or alcohol are not available, place in rubbing alcohol or boiling water.) Submit skin scrapings in a tube with small amount of saline. Dried specimens are *UNACCEPTABLE*.

### *Storage/Transport Instructions*

Store / Transport at room temperature.

## **PINWORM EXAM**

### *Special Patient Preparation Required*

Specimen is best obtained one to three hours after patient has retired, or first thing in morning before bath or bowel movement. Specimen is usually collected by an adult; therefore, a responsible adult should be instructed how to collect samples.

### *Specimen Type*

Pinworm paddle pressed to the perianal region and submitted in original covered container. Stool specimens are unacceptable. (See Patient Instruction flyer).

### *Storage/Transport Instructions*

Store at room temperature and transport to laboratory immediately.

### *Additional Comments*

- One negative result does not rule out the possibility of infection. Three or four consecutive morning slides may be necessary for diagnosis.
- The pinworm preparation is suitable for pinworm exam only.

## **RESPIRATORY CULTURE AND SMEAR, BACTERIAL**

### *Special Patient Preparation Required*

The patient should be instructed to remove dentures (if applicable), rinse mouth and gargle with water. The patient should then be instructed to cough deeply and expectorate sputum into proper container. If patient is unable to produce sputum, sputum induction may be effected by postural drainage, saline nebulization, or chest percussion.

### *Specimen Type*

Sputum: Collect a single 2 ml minimum of early morning freshly expectorated sputum in a sputum cup. Remove patient-use tunnel and secure vial with screw-top cap provided. 24-hour sputum specimens are unacceptable because of overgrowth of contaminants.

#### *Storage/Transport Instructions*

Store/transport refrigerated within 24 hours.

#### *Additional Comments*

- See also MRSA Carrier Screening, Strep Group A Culture, and Throat Culture. □ Swabs submitted with source ‘Nasal’ will automatically be screened for MRSA. For all other respiratory culture sources, if MRSA is suspected, identification can be accelerated if order comment states ‘MRSA Suspected’.
- A respiratory culture on sputum specimens includes a bacterial culture and gram stain for evaluation of the specimen. Should the gram stain exhibit >10 squamous epithelial cells per low power field (suggesting oral pharyngeal contamination of the specimen), the respiratory culture will be cancelled and a recollection requested.

### **STOOL CULTURE, BACTERIAL**

*Special Patient Preparation Required (See also Patient Instruction flyer).*

If possible, avoid recent antibiotics, or x-ray contrast material, antidiarrheal medications, antacids, bismuth, or oil instillation.

#### *Specimen Type*

- Fresh random stool is specimen of choice. Collect 0.5 – 2.0 grams of stool in a C&S vial (orange top).
- Rectal swab acceptable if delivered to the laboratory within 1 hour.
- If a Clostridium difficile toxin is also ordered, the portion of the specimen for that testing should be refrigerated in a sterile leak proof container (see ‘Clostridium difficile toxin’).
- Diapers are UNACCEPTABLE; if a specimen must be collected from a child in diapers it is acceptable to line the diaper with plastic wrap.

#### *Specimen Collection & Transport*

Using the collection spoon in the top of the C&S vial, select an appropriate (i.e. bloody, slimy, watery) area of the stool specimen. Sample sufficient volume of stool to bring the liquid level up to the “fill to here” line. Tighten the cap and shake firmly until the solution appears homogeneous. Store at room temperature and deliver to lab within 72 hours of collection.

#### *Additional Comments*

- Specimen will be screened for Salmonella, Shigella, Campylobacter, Edwardsiella, Aeromonas, Pleisiomonas, and Yersina only. Vibrio species and shigatoxin-producing Escherichia coli may not be isolated unless specifically requested.
- A request for shigatoxin-producing Escherichia coli is recommended for patients with bloody diarrhea.
- It is not recommended to perform stool culture testing on stools from patients who have been hospitalized for more than 3 days.

## **STREP GROUP A CULTURE (THROAT)**

### *Special Patient Preparation Required*

Avoid antibiotic administration prior to obtaining specimen.

### *Specimen Type*

Using the double swab transport system or a bacterial Culturette swab, collect a fresh uncontaminated swab of posterior pharynx and tonsillar fossa taken under direct visualization with tongue depression to avoid lingual contamination. Any visible exudate should be cultured.

### *Storage/Transport Instructions*

Return the swab to the original plastic tube. Store/transport at room temperature.

## **STREP GROUP A RAPID SCREEN WITH CONFIRMATION**

### *Special Patient Preparation Required*

Avoid antibiotic administration prior to obtaining specimen

### *Specimen Type*

Using the double swab transport system, collect a fresh uncontaminated swab of posterior pharynx and tonsillar fossa taken under direct visualization with tongue depression to avoid lingual contamination. Any visible exudate should be cultured.

### *Storage/Transport Instructions*

Store/transport at room temperature.

### *Additional Comments*

- A single swab is UNACCEPTABLE for Strep Combination; in this case, the test will be cancelled and reordered for a Strep Culture ONLY.
- A confirmatory strep culture will automatically be performed on all negative screens obtained from patients age 0-18 years old.

## **URINE CULTURE**

### *Special Patient Preparation Required*

Thoroughly instruct the patient for proper collection of “clean catch midstream” specimen. See patient collection instruction flyers.

### *Specimen Type*

- Urine (clean catch midstream, catheterized urine, cystoscopic urine or suprapubic urine aspirate). Collect at least 4 ml. in a sterile cup, sterile tube or urine culture preservative vacutainer vial (grey top). First morning specimens are preferred in all cases.
- 24 hour specimen collections, urine cultures on Foley catheter tips, urine contaminated with fecal material, and specimens collected in non-sterile containers are UNACCEPTABLE.

#### *Storage/Transport Instructions*

- *Non-preserved container:* Keep specimen refrigerated. DO NOT FREEZE. Specimens which cannot be delivered to the lab within 2 hours of collection should be submitted in a preservative vial.
- *Preservative vial:* Specimens which cannot be delivered to the lab within 2 hours of collection should have a portion approximately 4 ml. transferred to a boric acid preservative vial. Colony counts of bacteria are stable for up to 48 hrs once placed in the preservative vial. Store/transport at room temperature or refrigerated.

#### *Additional Comments*

- Do not collect catheter urine specimens from the drainage bag when an indwelling catheter is in place, because growth of bacteria can occur in the bag itself. Rather, clean the catheter with an alcohol sponge, puncture with a sterile needle and collect in a sterile syringe. Remove and discard the needle appropriately prior to sending the syringe to the laboratory.
- Multiple urine specimens collected within the same day are UNACCEPTABLE (except for Acid Fast Bacilli culture only).
- *Special Patient Preparation Required (See also Patient Instruction flyer).*

If possible, avoid recent antibiotics, or x-ray contrast material, antidiarrheal medications, antacids, bismuth, or oil instillation.

#### *Specimen Type*

- Fresh random stool is specimen of choice. Collect 0.5 – 2.0 grams of stool in a C&S vial (orange top).
- Diapers are UNACCEPTABLE; if a specimen must be collected from a child in diapers it is acceptable to line the diaper with plastic wrap.

#### *Specimen Collection & Transport*

Using the collection spoon in the top of the C&S vial, sample sufficient volume of stool to bring the liquid level up to the “fill to here” line. Tighten the cap. Store at room temperature and deliver to lab within 72 hours of collection.

## **WETMOUNT**

#### *Specimen Type*

Posterior vaginal pool secretions obtained with swab or wooden pap smear paddle. Submit swab in a sterile swab transport system.

#### *Storage/Transport Instructions*

Deliver to Laboratory IMMEDIATELY. Keep at room temperature.