

**St. Joseph Healthcare
360 Broadway
Bangor, ME 04401**

**NURSING REFERENCE
FOR
SPECIMEN COLLECTION**

GENERAL PROTOCOL FOR NURSE COLLECTED SPECIMENS

1.0 IN HOUSE COLLECTION & HANDLING:

- 1.1 Specimens should be collected and transported only by responsible individuals who have been trained in the appropriate method for collecting adequate specimens and safely transporting them to the Laboratory, including the proper labeling of specimens and required patient information.
- 1.2 Specimen containers should be sterile and securely closed to prevent leakage. Containers should be adequately labeled with patient identification and information. Specimen Labels should be placed on the specimen container itself NOT on the lid or cover.
- 1.3 Transport media is available for maintaining the viability of fastidious organisms from specific sites. Refer to specific collection instructions.
- 1.4 All specimens must be transported immediately to the Laboratory or adequately stored, per collection procedures.

2.0 STORAGE:

- 2.1 Room Temperature:
 - 2.1.1 All body fluids
 - 2.1.2 Genital Sources
 - 2.1.3 Specimens for Wound Cultures
 - 2.1.4 Specimens for Fungus Culture
 - 2.1.5 Occult Blood specimens
 - 2.1.6 Gastrocult Specimens
 - 2.1.7 STD Collection Kits (can also be 2-8°C)
- 2.2 Refrigeration (2-8° C):
 - 2.2.1 Urines:
 - For urinalysis, pregnancy test, Legionella Antigen, Streptococcus pneumoniae Antigen, 24-HR urine specimens, or culture
 - 2.2.2 Specimens for Throat Cultures
 - 2.2.3 Specimens for Sputum Cultures
 - 2.2.4 Specimens for Viral Cultures
 - 2.2.5 Specimens for *Legionella* Cultures

- 2.2.6 Urine for *Neisseria gonorrhoeae/Chlamydia trachomatis (STD)and Trichomonas vaginalis*
- 2.2.7 *C difficile* specimens
- 2.2.8 Specimens for Stool Culture/Ova and Parasite Examination
 - If not in preservative, needs to be delivered within 1 hour after collection.
- 2.3 Preservative:
 - 2.3.1 Specimens for Stool Culture & Ova and Parasite Examination
 - Cary-Blair Preservative
- 2.4 37° Incubation:
 - 2.4.1 All Blood Cultures immediately upon arrival.

CRITERIA FOR REJECTION OF MICROBIOLOGY TESTS

1.0 CATEGORY CRITERIA FOR REJECTION

1.1 IDENTIFICATION:

- 1.1.1 Identification discrepancy between patient identification on request form and on specimen container.
- 1.1.2 No identification on container.

1.2 SPECIMEN:

- 1.2.1 Anaerobic Culture request on:
 - 1.2.1.1 Sputum
 - 1.2.1.2 Midstream or catheterized urine
 - 1.2.1.3 Vaginal secretions
 - 1.2.1.4 Prostatic secretions
 - 1.2.1.5 Feces
 - 1.2.1.6 Bronchoscopy washings
 - 1.2.1.7 Throat or nose
 - 1.2.1.8 Mouth
- 1.2.2 Anaerobic Culture requests on improperly transported specimens.
- 1.2.3 Poor quality specimen (example: excess saliva in a sputum)

- 1.2.4 Material received in fixative.
 - 1.2.5 Foley catheter tips.
 - 1.2.6 24-hour urine or sputum collections for TB.
 - 1.2.7 Any improperly collected specimen.
 - 1.2.8 Urines that:
 - 1.2.8.1 Have not been properly refrigerated.
 - 1.2.8.2 Are in a leaking container.
 - 1.2.8.3 Are in a non-sterile container.
 - 1.2.9 Stool specimens contaminated with barium, oil, or anti-diarrheal, such as bismuth.
 - 1.2.10 Unpreserved stool for Stool Culture or Ova and Parasite Examination **if** delivered greater than 1 hour after collection.
 - 1.2.11 Duplicate urine, stool, sputum, and routine throat cultures on the same day from the same patient.
- 1.3 A telephone request for a new specimen will be made. Documentation for the new specimen request and reason for rejection will be in the LIS. The charges should be cancelled by the floor, and re-ordered when the specimen is recollected.

GRAM STAINS

1.0 PURPOSE:

- 1.1 Gram stains are **automatically** done on all body fluids, sputum, wounds, male genital cultures (when 2 swabs are available), and in certain other instances upon special request.
- 1.2 The gram stains are normally stained and examined the same day the specimen arrives in the Laboratory. Smears made after 15:30 are stained and examined by the technologist present and read. All gram stains done after 15:30 will be reviewed in the morning by Microbiology personnel.
- 1.3 Gram stains are reported on direct smears of clinical material as to relative numbers of bacteria and cells.
 - Rare: Less than one organism/cell per oil immersion field
 - Few: 1-5 organisms/cells per oil immersion field
 - Moderate: 5-10 organisms/cells per oil immersion field
 - Many: Greater than 10 per oil immersion field

Note: For urine cultures, at least 20 fields are examined and the average number of each organism per immersion field is reported. This correlates with a colony count of 10 CFU/ml.

PATIENT INSTRUCTIONS FOR 24 HOUR URINE COLLECTION

1.0 COLLECTION:

- 1.1 Empty bladder at 8:00 a.m. (or a suitable time on rising) and discard this urine.
- 1.2 Collect **ALL** subsequent urine up to and including that at 8:00 a.m. the following morning. **It is important to collect all the urine.** If any is lost or if the collection becomes contaminated with feces, the tests results are invalid and consequently a new collection should be started.
- 1.3 Keep the urine in the refrigerator or on ice between collections. Do not freeze.
- 1.4 Label the sticker on the container. Provide your name, date and time collection started, and date and time collection finished.
- 1.5 Avoid diuretics such as caffeinated beverages or alcohol while collecting the 24 hour urine.
- 1.6 Bring the collection to the Main lab located on the 3rd Floor of the hospital as soon as possible.

If you have any questions, please call x1659.

****Some 24 hour urine collections require a preservative. Please consult with the laboratory before beginning your collection.**

THROAT CULTURE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 Using a **YELLOW** capped STARSWAB II culturette with double swabs, depress the patient's tongue, rub vigorously over each tonsillar area and the posterior pharynx. Any exudate should be touched and care should be taken to avoid the tongue and uvula.
- 1.2 Label culturette with the patient's name, date of birth, source of specimen, date and time collected, and deliver to the Laboratory promptly.

2.0 COMPUTER ORDER:

2.1 Rapid Strep Screen (RSNC)

Note: If the Rapid Strep Screen is **negative**, it will automatically be reflexed to a throat culture. **Positive** rapid strep screens are **NOT** reflexed.

3.0 PATHOGEN:

3.1 Group A Beta Hemolytic Streptococci

3.2 If any of the following organisms are suspected, an **UPPER RESPIRATORY CULTURE** (URCU) should be ordered. Note the organism suspected under comments.

Streptococcus pneumoniae (as the predominating organism)

Haemophilus influenzae

Moraxella catarrhalis

Yeast

3.3 The Microbiology Department must be notified in advance if any of the following organisms are suspected.

Neisseria gonorrhoeae

Corynebacterium diphtheriae

Neisseria meningitidis

Candida albicans

Yeast

ROUTINE UPPER RESPIRATORY/NASOPHARYNGEAL CULTURE

COLLECTION PROCEDURE

1.0 COLLECTION:

1.1 Nasopharyngeal Collection for **Culture**:

Using an **ORANGE** capped culturette with a single, mini-tip swab which has a flexible aluminum shaft (nasopharyngeal/urethral swab) gently enter the anterior nares. Staying towards the base of the nasal cavity, gently pass the swab into the nasopharyngeal area. If resistance is met, do not force the swab any further.

1.2 Nasopharyngeal Collection for **Influenza A,B and RSV**

Using an Xpert NP Copan Swab in UTM media (available in the lab) gently enter the anterior nares. Staying towards the base of the nasal cavity, gently pass the swab into the nasopharyngeal area. If resistance is met, do not force the swab any further.

1.3 Lip and Interior Mouth Collection:

Using a **YELLOW** capped STARSWAB II culturette with double swabs. After collection, label the container and deliver to the Laboratory.

2.0 COMPUTER ORDER:

2.1. Upper Respiratory Culture (URCU)

3.0 COMMON PATHOGENS:

3.1 Beta Hemolytic *Streptococci* & *Staphylococcus aureus*

3.2 The following are pathogens if found in predominating numbers:

Haemophilus influenzae

Streptococcus Pneumococci

Klebsiella Species

Candida albicans

Coliform Bacilli

Neisseria meningitidis

Yeast (Thrush)

3.3 Notify the Microbiology Department if any of the following organisms are suspected:

Cornybacterium diptheriae

Bordetella pertussis

BORDETELLA PERTUSSIS (WHOOPING COUGH) COLLECTION PROCEDURE

1.0 COLLECTION:

1.1 Culture kits are kept in the Microbiology Section of the Walk-in refrigerator in the laboratory. The kit will need to be picked up in the laboratory. After collection, label the container and deliver to the Laboratory.

2.0 COMPUTER ORDER:

2.1 Bordetella pertussis (XBPERT)

3.0 COMMON PATHOGEN:

3.1 *Bordetella pertussis*

4.0 PROCEDURAL NOTES:

- 4.1 Specimens are sent to Affiliated Laboratory (ALI) for testing.
- 4.2 An instruction sheet for proper collection of the specimen is provided in the collection kit

ROUTINE LOWER RESPIRATORY CULTURES

1.0 DEFINITION:

1.1 Lower respiratory tract specimens: sputum, bronchial washings, bronchial or trachial suction material, trans-tracheal aspirates, lung aspirates, and lung biopsies.

2.0 COLLECTION:

- 2.1 Give the patient a sterile sputum container.
- 2.2 Advise the patient to rinse mouth out with water.
- 2.3 Advise the patient to cough deeply and expectorate all sputum into the container. Encourage the patient to expectorate deep sputum (from the diaphragm) not saliva. Label the container and deliver to the Laboratory.

*The use of superheated hypertonic saline aerosols for sputum induction is recommended when the cough is non- productive.

*Gram stains are routinely done on all sputums. Sputums with gram stains showing moderate-many epithelial cells and only few WBCs are NOT suitable for clinical evaluation.

3.0 COMPUTER ORDER:

- 3.1 Sputum Culture (LRCU)
 - 3.1.1 Gram Stain is included in the Sputum Culture order, do not need to order it separately.

4.0 COMMON PATHOGENS:

- 4.1 *Moraxella catarrhalis*
Streptococcus pneumoniae
Klebsiella pneumoniae
Haemophilus influenzae
Staphylococcus aureus
Coliform bacilli

Candida albicans

Mycobacterium tuberculosis

BRONCHIAL WASHINGS COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 The specimen is collected by the physician into a mucus trap or some other suitable sterile container. After collection, label the container and deliver to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.1 Sputum Culture (LRCU)
 - 2.1.1 Gram Stain is included in the Sputum Culture order, do not need to order it separately.

3.0 COMMON PATHOGENS:

- 3.1 *Moraxella catarrhalis*
Streptococcus pneumoniae
Klebsiella pneumoniae
Haemophilus influenzae
Staphylococcus aureus
Coliform Bacilli
Candida albicans

URINE CULTURE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 A midstream or catheterized specimen must be submitted.
 - 1.1.1 CLEAN CATCH MIDSTREAM/FEMALE:

- 1.1.1.1 Thoroughly wash hands with soap and water, rinse, and dry.
- 1.1.1.2 With one hand, the patient is to spread her labia and keep them continuously apart until the urine is voided into the cup.
- 1.1.1.3 Taking a single sponge or towel dripping with soap, she is to wash the vulva well, passing only from front to back and then discard the towel.
- 1.1.1.4 With labia still spread, she is to repeat the front to back wash twice more, using a clean sponge or towel each time.
- 1.1.1.5 Then the patient should rinse well with warm water so the specimen will not be contaminated with soap.
- 1.1.1.6 Void the first 20-25 ml of urine into the toilet. Directly catch the remainder of the urine in a clean cup without stopping the stream. The cup should be held in such a way that contact with the legs, vulva or clothing is avoided. The fingers should be kept away from the rim and inner surface of the container.
- 1.1.1.7 After collection, label the container, collect the appropriate requestor copies for the tests ordered, and deliver to the Laboratory.

1.1.2 CLEAN CATCH URINE/MALE:

- 1.1.2.1 Wash and dry hands thoroughly.
- 1.1.2.2 Wash the penis with a soap-soaked towel or sponge.
- 1.1.2.3 Rinse well with warm water and a clean towel.
- 1.1.2.4 Void the first 20-25 ml of urine into the toilet. Directly pass remaining urine into a sterile container.
- 1.1.2.5 Immediately after collecting the urine in a sterile container, label with the patient's name, room number, doctor, and date.
- 1.1.2.6 After collection deliver to the Laboratory immediately. If delay in delivery occurs, refrigerate specimen until able to deliver.

2.0 COMPUTER ORDER:

2.1 Urine Culture (UC)

INDWELLING CATHETER & ILEAL CONDUIT URINE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 These urines should be collected by a nurse or doctor. In both instances, urine should be collected as it is draining. DO NOT collect from the drainage bag.

- 1.2 After collection, label the container and deliver to the Laboratory.

2.0 COMPUTER ORDER:

- 2.1 Urine Culture (UC)

SUPRAPUBIC ASPIRATION COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 This involves direct puncture of the bladder through the lower abdominal wall using a needle and syringe. Specimen should be submitted in a plugged syringe, and the site of collection should be noted in the comment section.
- 1.2 After collection, label the container and deliver to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.1 Urine Culture (UC)

URINE FOR NEISSERIA GONORRHOEAE/CHLAMYDIA TRACHOMATIS/TRICHOMONAS VAGINALIS (STD) COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 Instruct patient to collect all voided urine in specimen container. First catch urine is the desired sample. Sharing urine samples sent to the lab for Urinalysis (Clean Catch) is contraindicated and may lead to false negative results.
- 1.2 Label the specimen appropriately and deliver to the lab immediately.

2.0 COMPUTER CHARGE:

- 2.1 STD (HCTNG)
- 2.2 Trichomonas vaginalis (TRICTB)

GENITAL CULTURE COLLECTION PROCEDURE

1.0 COLLECTION:

1.1 MALE:

- 1.1.1 Using an **ORANGE** capped, mini-tip swab, obtain a specimen from the anterior urethra by gently scraping the mucosa.
- 1.1.2 **Repeat with a second swab** to obtain a sample for gram stain.
- 1.1.3 Place the swabs in separate culturette tubes. Label and transport to the Laboratory immediately.

1.2 FEMALE:

- 1.2.1 Taking a **YELLOW** capped Starplex II swab collect vaginal secretions and label with the patient's name and the source. This will be used for the wet prep which determines the presence of trichomonas, clue cells, and budding yeast.
- 1.2.2 Take a second **YELLOW** capped Starplex II swab specimen from the endocervix by the following method:
 - 1.2.2.1 Moisten the speculum with warm water. **DO NOT** use any other lubricant.
 - 1.2.2.2 Remove excessive cervical mucus, preferably with a cotton ball held in ring forceps.
 - 1.2.2.3 Insert a sterile culturette swab into the endocervical canal. Move the swab from side to side. Allow 10-30 seconds for absorption of organisms onto the swab.
 - 1.2.2.4 Clearly label swab with source and patient's name.
 - 1.2.2.5 Transport swabs to Laboratory immediately and hand to a technologist.

1.3 Peri-Anal Collection

- 1.3.1 Swab the lower vagina, followed by the rectum using the same swab or two different swabs. Cervical, perianal, perirectal or perineal specimens are not acceptable, and a speculum should not be used for culture collection.
- 1.3.2 Place the swab(s) into a nonnutritive transport medium. Appropriate transport systems (e.g., Stuart's or Amies with or without charcoal) are acceptable. If transport time is to be more than 24 hours, then the specimen must be kept at 2 to 8 degrees C. ⁽⁷⁾

2.0 COMPUTER ORDER:

- 2.1 Males: Gonorrhea Culture (GCCS)
- 2.2 Females: Bacterial Vaginosis Screen (BVAG)
 - 2.2.1 Graded Gram Stains are included in BVAG orders.
- 2.3 Females: Genital Group B Strep Screen (GENCB)
- 2.4 Genital Wet Prep: (HWETP)
 - 2.4.1 Wet Preps are not included in any culture and are only performed on request.
- 2.5 Females: Yeast Culture (YOG)
 - 2.5.1 Ordered as an alternative to BVAG culture when a graded Gram Stain is not wanted.

3.0 COMMON PATHOGENS:

- 3.1 *Neisseria gonorrhoeae*
Candida albicans
Gardnerella vaginalis

Neisseria gonorrhoeae/Chlamydia trachomatis/Trichomonas Vaginalis (STD)

BY DNA PROBE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 Proper specimen collection is critical in any diagnostic procedure for Chlamydia. Chlamydia have an affinity for columnar epithelial cells that are found in the area of the uterine cervix that protrudes into the vagina in the female and in the epithelial cells that line the urethra in the male. In either area these cells are what must be collected when sampling because exudates or discharges are not adequate for laboratory diagnosis
- 1.2 FEMALES:
 - 1.2.1 Open the *Xpert Vaginal/Endocervical Specimen Collection Kit*
 - 1.2.2 Remove cervical mucus with the large swab provided and discard. Using the individually wrapped collection swab for endocervical specimens, take the sample from the appropriate area applying sufficient pressure to dislodge cells.
 - 1.2.3 Replace the swab in the plastic Xpert Swab Specimen Transport Tube and place the cover on the top.
 - 1.2.4 Label the specimen appropriately and deliver to the Laboratory.
- 1.3 MALES:

- 1.3.1 Cepheid PCR testing is not validated for Male urethral, oral or anal specimens. These tests are sent to MAYO medical laboratory. Please consult the MAYO test catalogue for proper collection and ordering.

2.0 COMPUTER CHARGE:

- 2.1 *Neisseria gonorrhoeae*/Chlamydia trachomatis (HCTNG)
2.2 *Trichomonas vaginalis* (TRICTB)

3.0 COMMON PATHOGENS:

- 3.1 *Neisseria gonorrhoeae*
3.2 *Chlamydia trachomatis*
3.3 *Trichomonas vaginalis*

STOOL CULTURE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 Fresh stools should be collected directly into clean leak proof containers with tight fitting covers **and delivered to the laboratory within 1 hour after collection**. The containers do not need to be sterile. Avoid getting urine into the container.
- 1.2 With infants, it may be necessary to collect stool samples from the diaper. It may be suggested to line the diaper with plastic wrap to obtain sample without absorption into the diaper.
- 1.3 Rectal swabs may be used if a specimen cannot be otherwise obtained. Use a **YELLOW** capped STARPELX II culturette with one swab to be placed in Cary-Blair transport media and the remaining swab to be placed in the culturette holder. Make sure there is fecal material on both swabs.
- 1.4 Stools for culture will not be accepted after a barium enema or mineral oil laxative.
- 1.5 Stools must be transported immediately to the Laboratory.
- 1.6 For rectal swabs, pick up enough stool to cover the swab. Place the swab in a tube containing Cary-Blair medium (orange capped Para Pak C&S plastic tube).
- 1.7 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.1 Stool Culture (STCS)
 - 2.1.1 Fecal WBC smear (WBCF) are not included in a stool culture and must be ordered separately
 - 2.1.2 Stool Culture do not screen for Vibrio (VICU) or Yersinia (YCUL), if either of these pathogens are suspected you must order separately.

3.0 COMMON PATHOGENS:

- 3.1 *Salmonella* Species
- Shigella* Species
- Staphylococcus aureus*-when predominant
- Yersinia enterocolitica*
- Edwardsiella tarda*
- Arizona* Species
- Aeromonas hydrophila*
- Pseudomonas aeruginosa*-when predominant
- Pleisiomonas shigelloides*
- Campylobacter* Species

4.0 REJECTION:

- 4.1 No more than one specimen in 24 hours for 2 consecutive days are accepted without prior consultation and approval between the Laboratory and the Physician.
- 4.2 Specimens from inpatients are not accepted after the third hospital day without prior consultation between the Laboratory and the Physician.

CLOSTRIDIUM DIFFICILE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 A fecal specimen should be collected in a clean container and transported to the laboratory **within 1 hour**.
- 1.2 Hard formed specimens will not be tested and if sent will be rejected.

- 1.3 Only 1 specimen per 7 days will be accepted for testing. If the physician requests additional testing a consult with the microbiology department and pathology must be performed.
- 1.4 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.1 C. Difficile Test (CLDPCR)

OVA & PARASITE COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 A fecal specimen should be collected in a clean container and transported to the laboratory **within 1 hour**.
- 1.2 Only one specimen will be tested unless the patient has been out of the country. In this case, notify the microbiology department at EXT: 1653 and the appropriate specimen collection container will be provided. Note the patient's travel history on the requisition and the specimen will be sent to ALI laboratory for complete O&P testing. Three specimens should be collected from 3 separate days.
- 1.3 Samples from inpatients are not accepted after the 4th hospital day without prior consultation.
- 1.4 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.1 Ova & Parasite Exam (GIACRY)
- 2.1 If request is sent to ALI Laboratory, order Parasitic Examination, Travel History (XOVAR)

3.0 PROCEDURAL NOTES:

- 3.1 O&P testing consists of Immunocard testing for *Giardia lamblia* and *Cryptosporidium* only.
- 3.2 All other O&P requests are sent to ALI.

PINWORM COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 Pinworm collection kits are available in the Microbiology Department.
- 1.2 Hold the paddle by the cap and remove it from the tube.
- 1.3 Separate the buttocks and press the tacky surface against several areas of the peri-anal region. The best specimen is obtained a few hours after the person has retired, between the hours of 9:00 pm and midnight, or in the morning immediately upon rising before bathing or bowel movement.
- 1.4 Replace the paddle in the tube for transport to the Laboratory.
- 1.5 Label the tube with the appropriate information and deliver to the Laboratory. The specimen should be refrigerated if examination is to be delayed for more than one day.

2.0 COMPUTER CHARGE:

- 2.1 Pinworm Prep (PINW)

3.0 COMMON PATHOGEN:

- 3.1 *Enterobius vermicularis*

ANAEROBIC & AEROBIC COLLECTION PROCEDURE**1.0 PURPOSE:**

- 1.1 To enhance the successful culture of anaerobes, the lethal effects of atmospheric oxygen must be nullified until the specimen can be processed anaerobically in the Laboratory. Therefore, we recommend two methods of collecting and holding specimens anaerobically.

2.0 COLLECTION:

- 2.1 Plugged Syringe: Collection by needle aspiration rather than by swab is recommended. This is particularly appropriate in the following situations:
 - 2.1.1 Pus from a closed abscess
 - 2.1.2 Pleural fluid (by thoracentesis)
 - 2.1.3 Urine (by suprapubic aspirate)

- 2.1.4 Pulmonary secretions (by transtracheal aspiration)
 - 2.1.5 Peritoneal fluid
 - 2.1.6 Sinus tract material (by insertion of a small gauge pediatric intravenous type of plastic catheter through a decontaminated area and aspiration with a syringe); biopsy of the underlying lesion is preferable when feasible.
- 2.2 After the specimen is collected in the sterile syringe by aspiration, all air bubbles should be expelled from the syringe and the needle tip inserted into a sterile rubber stopper. Label the syringe with the appropriate information and transport it to the Laboratory.
- 2.2 Anaerobic BBL Culture Swab Plus (**BLUE CAP WITH DOUBLE SWAB AND GEL IN BOTTOM OF CULTURETTE**): This is designed for the collection of specimens when needle aspiration or tissue biopsy is not feasible.
- 2.3 For AEROBIC only Cultures a Yellow capped Starplex II swab is to be used
- 2.4 Peel open the package from the chevron end.
- 2.5 Remove the tube cap, swab the site, and immediately insert the swab to the bottom of the tube. Replace cap.
- 2.6 With the second swab, obtain more specimen and insert it into the same tube as in the step above. Cap tightly. Since there are two swabs with this system, it is not necessary to also send a regular culturette.
- 2.7 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

*Note: Whenever a sample is used to obtain a specimen for culture, it is imperative that the swab be saturated with material.

Small samples of tissue may be submitted for culture in this tube. Drop the tissue onto the top of the media and screw on the cap. Do not plunge the tissue down into the media.

3.0 COMPUTER ORDER:

- 3.1 ANAEROBIC/AEROBIC CULTURE (AERANA)
 - 3.1.1 Gram Stain is included in the Wound Culture order, do not order it separately.

3.2 AEROBIC CULTURE (AERC)

3.2.1 Gram Stain is included in the Wound Culture order, do not order it separately.

WOUND AND TISSUE CULTURE COLLECTION PROCEDURE

1.0 COLLECTION:

1.1 Specimens should be submitted in a transport system capable of keeping anaerobic organisms viable. These include:

1.1.1 Plugged syringes

1.1.2 **BLUE** capped anaerobic transport systems with double swabs and gel in the bottom of the transport culturette.

1.1.3 Biopsies

Note: The preferred sample is tissue, and should be placed in a sterile container without fixative and transported to the Laboratory IMMEDIATELY.

1.2 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE:

2.1 Wound Culture (AERANA) – Swab Collection

2.1.1 Gram Stain is included in the Wound Culture order, do not order it separately.

2.2 Tissue Culture (TISCAA)

2.2.1 Gram Stain is included in the Tissue Culture order, do not order it separately.

KOH COLLECTION PROCEDURE

1.0 COLLECTION MAY BE PERFORMED IN ONE OF THE FOLLOWING WAYS:

- 1.1 Nail clippings, hair, or skin in a sterile container without transport medium.
- 1.2 A **YELLOW** capped STARLEX II swab of the skin.
- 1.3 A slide containing skin scrapings in a Petri dish.
- 1.4 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE

- 2.1 KOH Prep (KOHP)

CEREBROSPINAL FLUID COLLECTION PROCEDURE

1.0 COLLECTION:

- 1.1 All spinal fluids are collected by an attending physician and placed in appropriate containers. Make sure the order of collection correlates with the number on the specimen container.
- 1.2 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory immediately with the verified requestor copy.

2.0 COMPUTER CHARGE:

- 2.1 CSF Culture (CSFC)
 - 2.1.1 Gram Stain is included in the CSF Culture order, do not need to order it separately

3.1 COMMON PATHOGENS:

- 3.1 *Streptococcus pneumoniae*
Neisseria meningitidis

Haemophilus influenzae

Beta Hemolytic Streptococci

Cryptococcus neoformans

Mycobacterium tuberculosis

4.1 PROCEDURAL NOTES:

- 4.1 Specimen for *M. tuberculosis* should be sent to the STATE for AFB culture and smear.
- 4.2 Specimen for *Cryptococcus* should be sent to ALI for antigen testing.

BODY FLUIDS OTHER THAN CSF AND URINE **(including body fluids such as joint, thoracentesis, bile, etc)**

1.0 COLLECTION:

- 1.1 The physician should collect the specimen.
- 1.2 The fluid should be aspirated into a plugged syringe or put in a sterile test tube or other container. A plugged syringe is best as this will help protect any potential anaerobes from the lethal effects of oxygen.
- 1.3 Label the specimen appropriately, clearly indicating the source and transport to the Laboratory.

2.0 COMPUTER CHARGE:

- 2.2 Fluid Culture (FLDCAA)
 - 2.2.1 Gram Stain is included in the Fluid Culture order, do not order it separately.

PROTOCOL FOR CULTURING INTRAVENOUS CATHETERS (CANNULAS)

1.0 COLLECTION:

- 1.1 Before removing the cannula, cleanse the skin about the insertion site with an alcohol swab to reduce contaminant skin flora and to remove any residual antimicrobial ointment.

- 1.2 After the alcohol dries, carefully remove the catheter, being very careful not to touch the skin surface during withdrawal. Use a sterile forceps to withdraw it.
- 1.3 Ask a second person to open the sterile container and to hold it.
- 1.4 Place the cannula over the mouth of the container, holding it with forceps. Use the scissors to amputate the cannula such that the **tip with a two inch segment** from inside the patient falls into the container. If steel catheters are being used, break the intermedial portion of these into the container with a sterile hemostat.
- 1.5 Transport the labeled specimen to the Laboratory within one hour.

2.0 COMPUTER CHARGE:

- 2.1 Intravascular Catheter Culture (CTIPCS)
 - 2.1.1 No Gram Stain is performed for Intravascular Catheter Cultures.

BLOOD CULTURE COLLECTION PROCEDURE

1.0 PURPOSE:

- 1.1 Blood Cultures are among the most important tests that can be done in the clinical laboratory. In some situations, Blood Cultures are the only immediate source of the etiological agent of severe or life threatening infections. In other cases, Blood Cultures indicate the severity of an infection.
- 1.2 In patients who have a history of recent or current antimicrobial therapy, the recovery of micro-organisms from their Blood Cultures is often delayed or prevented. Blood Cultures are drawn using Bactec plus bottle. It will also be used with patients who have recently undergone antimicrobial therapy regimes concluding within the following time frames.
 - 1.2.1 48 HOURS:
 - Penicillin G
 - Penicillin V
 - Oxacillin
 - Dicloxacillin
 - Carbenicillin
 - Ampicillin

Cefazolin (Ancef, Kefzol)
Cephalexin (Keflex)
Cephalothin (Keflin)
Cefamandol (Mandol)
Cefoxitin (Mefoxin)
Chloramphenicol
Erythromycin
Gentamycin (Garamycin)
Tobramycin
Amikacin
Clindamycin (Cleocin)

2.2.2 WITHIN 2 WEEKS:

Tetracycline (Sumycin)
Doxycycline (Vibramycin)

1.3 Antimicrobials shown to have been specifically removed by the resins in the Bactec include:

Cefazolin
Cephalothin
Gentamycin
Tobramycin
Ampicillin
Nafcillin
Ticarcillin & Tobramycin
Cefazolin & Tobramycin
Vancomycin & Gentamycin
Trimethoprim & Sulfamethoxazole
Cloramphenicol
Vancomycin
Ticarcillin
Tetracycline
Cefoxitin

Amikacin

2.1 COLLECTION:

2.1 All blood cultures are collected by the laboratory.

3.1 COMPUTER CHARGE:

3.1 Blood Culture, First Set (BLDCS)

Blood Culture, Second Set (BLDCS2)

Blood Culture, Third Set (BLDCS#)

3.3 Only 2 sets of blood cultures are drawn within a 24 hour period. If the physician requests additional sets be drawn, the laboratory can draw one more set within the 24 hour period, but no more.

STOOL COLLECTION FOR WBC

1.0 COLLECTION:

1.1 Collect fresh stool in a clean, dry container.

1.2 Do not contaminate with urine.

1.3 Bring stool to the Laboratory within one hour of collection, properly labeled, and with a verified requestor copy.

2.0 COMPUTER CHARGE:

2.1 Stool, WBC smear (WBCF)

INFLUENZA A,B and RSV by PCR

1.0 COLLECTION:

1.1 Refer to Routine Upper Respiratory/Nasopharyngeal Collection Instructions

2.0 COMPUTER CHARGE:

2.1 Rapid Influenza A/B by PCR (RINF)

2.2 RSV PCR (RSVPCR)

2.3 Rapid Influenza A/B and RSV (INFRSV)

3.0 PROCEDURAL NOTES:

3.1 Inpatient results will be available within 4 hours of receiving into the lab

MRSA/SA by PCR

1.0 COLLECTION

- 1.1 Have the patient incline head back.
- 1.2 Using a RED COPAN dual swab, enter one side of the anterior nares and rotate the swab. Repeat the procedure on the other side. Do not use the same swab for both sides.
- 1.3 Place the swabs in the transport tube and label with the full patient name, date, and source.
- 1.4 Transport to the laboratory promptly.

2.0 COMPUTER CHARGE

2.1 MRSA by PCR Nasal (MSAPCR)

3.0 PROCEDURAL NOTES

3.1 Inpatient results will be available within 4 hours of receiving into the lab

Tests sent to Affiliated Laboratory

The following tests are sent to ALI, please refer to the ALI Test Catalogue <https://www.testmenu.com/ali> for Collection information:

- CMV Culture
- Enterovirus Culture
- Fungal Blood Culture
- Fungus Culture, Superficial
- Fungus Culture
- Herpes Simplex Culture and PCR
- Legionella Culture
- Varicella Zoster PCR

Tests sent to Maine State Environmental Testing Lab

AFB Culture and Smear are sent to the state for testing please refer to the State of Maine website for Collection information. www.mainepublichealth.gov/lab

REVIEW

PROCEDURE	2011	2012	2013	2014	2015	2017
General Protocol for Nurse Collected Specimens	MK	MK	AC	DL	DL	AC
Delivery of Reports	MK	MK	AC	DL	DL	AC
Specimen Labeling & Requisitions	MK	MK	AC	DL	DL	AC
Rejection of Microbiology Tests	MK	MK	AC	DL	DL	AC
Gram Stain Collection	MK	MK	AC	DL	DL	AC
Instructions for 24 Hour Urine Collection	MK	MK	AC	DL	DL	AC
Throat Culture Collection	MK	MK	AC	DL	DL	AC
Upper Respiratory/Nasopharyngeal Culture Collection	MK	MK	AC	DL	DL	AC
Whooping Cough Collection	MK	MK	AC	DL	DL	AC
Lower Respiratory Culture Collection	MK	MK	AC	DL	DL	AC
Acid Fast Bacilli Collection	MK	MK	AC	DL	DL	AC
Bronchial Washings Collection	MK	MK	AC	DL	DL	AC
Gastric Washing for AFB Culture Collection	MK	MK	AC	DL	DL	AC
Urine Culture Collection	MK	MK	AC	DL	DL	AC
Indwelling Cath & Ileal Conduit Urine Collection	MK	MK	AC	DL	DL	AC
Suprapubic Aspiration Collection	MK	MK	AC	DL	DL	AC
Urine Culture for STD Collection	MK	MK	AC	DL	DL	AC
Genital Culture Collection	MK	MK	AC	DL	DL	AC
Chlamydia Screen by DNA Probe Collection	MK	MK	AC	DL	DL	AC
Ear Culture Collection	MK	MK	AC	DL	DL	AC
PROCEDURE	2011	2012	2013	2014	2015	2017

Eye Culture Collection	MK	MK	AC	DL	DL	AC
Stool Culture Collection	MK	MK	AC	DL	DL	AC
OVA & Parasite Collection	MK	MK	AC	DL	DL	AC
Pinworm Collection	MK	MK	AC	DL	DL	AC
Anaerobic Culture Collection	MK	MK	AC	DL	DL	AC
Wound, Fluid, Tissue Culture Collection	MK	MK	AC	DL	DL	AC
KOH Collection	MK	MK	AC	DL	DL	AC
Fungal Culture Collection	MK	MK	AC	DL	DL	AC
CSF Culture Collection	MK	MK	AC	DL	DL	AC
Body Fluids Other Than CSF/Urine Collection	MK	MK	AC	DL	DL	AC
Body Fluids Other Than Urine for TB & Fungus Collection	MK	MK	AC	DL	DL	AC
Blood Culture Collection	MK	MK	AC	DL	DL	AC
Stool for WBC Collection	MK	MK	AC	DL	DL	AC
Herpes Culture	MK	MK	AC	DL	DL	AC
Rapid Influenza A & B Test	MK	MK	AC	DL	DL	AC
Rapid RSV	MK	MK	AC	DL	DL	AC
Influenza A, B, and RSV by PCR	MK	MK	AC	DL	DL	AC
Viral Culture	MK	MK	AC	DL	DL	AC