Standard Operating Procedure

Title:	MP4_01 – Microbiology Specimen Collection

1. PURPOSE

The purpose of this procedure is to provide instruction on how to collect specimens for Microbiology testing, and guidance on general specimen handling, transport, and rejection.

2. SCOPE

2.1. This procedure applies to staff working in the Beebe Healthcare Laboratories and to all Beebe Healthcare hospital staff who collect specimens for Microbiology testing.

3. GENERAL CONSIDERATIONS

3.1. Safety Considerations.

3.1.1. Follow universal precaution guidelines. Staff should wear appropriate personal protective equipment (PPE) when collecting or handling specimens.

3.1.2. Do not contaminate the external surface of the collection container and/or its accompanying paperwork.

3.1.3. Specimens collected via needle/syringe MUST have the needle removed before transport to the laboratory.

3.2. General Guidelines for Proper Specimen Collection.

3.2.1. Contact the Microbiology Laboratory prior to collection if you have any questions or concerns.

3.2.2. Utilize appropriate collection devices. Collect specimens in sturdy, sterile, leak-proof containers with lids that do not create an aerosol when opened.

3.2.3. Collect specimens prior to administering antimicrobial agents when possible.

3.2.4. Collect specimen with as little contamination from indigenous normal flora as possible to ensure that the specimen will be representative of the infected site. Use sterile equipment and aseptic technique to collect specimens to prevent introduction of microorganisms during invasive procedures. Properly cleanse and disinfect the surface of the skin before collecting specimens, especially those collected through intact skin (such as blood, or abscess material), to minimize contamination from normal flora.

3.2.5. **Clearly label the specimen container (not the container lid) with the patient's name, date of birth, date and time of collection and initials of the person collecting the specimen**.

3.2.6. Clearly note the specimen source and/or specific body site correctly so that the proper workup will be performed.

3.2.7. Collect an adequate amount of specimen. Inadequate amounts of specimen may yield false negative results.

3.2.8. Develop a general understanding of the procedures used in the microbiology laboratory for detecting the presence of pathogenic organisms. Not all laboratories use the same methods.

3.2.9. Consider geographic travel history and current season when notifying the laboratory of rule-out requests. For example, certain organisms are found more often in the winter months versus the summer months, and some organisms are only found in certain parts of the world.

3.3. General Guidelines for Specimen Packaging.

3.3.1. Place cultures and/or specimens in securely closed, watertight containers. Seal these primary containers tightly to prevent leakage during transport.

3.3.2. Place the specimen into a biohazard bag for transport. The biohazard bag must be sealed.

3.3.3. All labels must be legible, completely visible, and placed on the primary specimen container, not in the bag with the specimen.

3.3.4. Accompanying documents must be placed in the outer compartment of the biohazard bag.

3.4. General Guidelines for Specimen Transport.

3.4.1. Transport all specimens to the laboratory promptly, preferably within 1-2 hours of collection.

3.4.2. Always use an acceptable specimen transport system designed to preserve the life of microorganisms whenever possible. Check the expiration dates on specimen transport systems prior to using for specimen collection.

3.4.3. Transport systems are supplied by the laboratory – contact the laboratory, or the laboratory courier if outpatient office, to request supplies.

3.4.4. If specimens cannot be delivered to the laboratory promptly, most specimens for bacterial and fungal culture can remain at room temperature. The exact length of time depends on the type of specimen and the pathogens likely to be found in a particular body site. If unsure of specimen temperature storage requirements, please contact the laboratory. Note the following exceptions:

3.4.4.1. Stool specimens should be refrigerated, unless they are collected into a preservative type transport vial, in which case they may remain at room temperature.

3.4.4.2. Blood and Cerebrospinal Fluid (CSF) specimens must remain at room temperature.

3.4.4.3. Specimens that may harbor temperature sensitive organisms, such as Neisseria gonorrhoeae and Haemophilus influenzae, should be left at room temperature.

3.4.4.4. Anaerobic cultures must be collected or placed into suitable Anaerobic Transport Media as soon as possible, ideally within 30 minutes, but the exact length of time depends on the type and volume of specimen.

4. SPECIMEN REJECTION POLICY

4.1. At times, specimens arriving in the laboratory for culture have been improperly selected, collected or transported. If these specimens are processed, they may give the physician misleading information that can lead to a misdiagnosis and inappropriate therapy. Because providing clinically relevant results requires quality specimens, the laboratory must adhere to a strict policy of specimen acceptance and rejection. The microbiology laboratory must reject specimens of poor quality, unless that specimen is truly irretrievable. The provider will be notified promptly of any specimen that is rejected by the laboratory.

4.2. If the provider for any reason insists that the results for an improperly selected, collected, or transported specimen be tested, the laboratory must include in the report a statement explaining the potentially compromised nature of the results. Any tests that are cancelled must have call notification and reason for cancellation thoroughly documented in the LIS.

4.3. Requests for viral testing are performed at the request of the clinician. While many viral illnesses are seasonal in nature, requests outside of the typical seasonal pattern are not denied due to the ease of travel across the globe and the unknown immune status of the patient.

4.4. Rejected specimens should be labeled or identified as such so that other testing is not accidentally added on or performed.

4.5. Specimen Rejection Criteria:

REJECTION CRITERIA	CORRECTIVE ACTION PROCEDURE
CLERICAL ERRORS	
Specimen and/or requisition not properly labeled.	Notify physician or nurse in charge and request a new specimen. Unlabeled specimens will not be accepted unless the specimen is irretrievable. If simple information is missing, such as the source, contact the physician or nurse to obtain missing information.
BACTERIOLOGY	
Specimens for Culture, CDIFF, Fecal WBC or Rotavirus received in fixative solutions (formalin, EcoFix, etc).	Notify physician or nurse in charge and request a new specimen.
Leaking Container	Notify physician or nurse in charge and request a new specimen if possible. If the specimen remains inside the original container, attempt to recover the specimen if sterility is not compromised. If unable to recover specimen, test must be rejected.
Improper or Non-sterile Container	Notify physician or nurse in charge and request a new specimen. If contact insists that the specimen be processed, consult the Lead Technologist.
Urine specimens >24 hours old for culture	Notify physician or nurse in charge and request a new specimen. If contact insists that the specimen be processed, consult the Lead Technologist.
Formed Stool for CDIFF or Rotavirus	Stool must be soft enough to conform to the shape of the container. Formed stool will be rejected.

REJECTION CRITERIA	CORRECTIVE ACTION PROCEDURE
Body Fluids received in anticoagulant tubes other than Heparin Vacutainer	Heparin is the only anticoagulant that is not inhibitory to bacteria. Other types of anticoagulants may cause false results.
Specimens for anaerobic culture not received in appropriate anaerobic transport media, or from an appropriate source.	Notify physician or nurse in charge and request a new, properly transported specimen. If the physician insists that the specimen be cultured, consult the Lead Technologist. Specimens for anaerobic culture have strict specimen transport criteria and specimen requirements that must be met. Refer to Anaerobic Bacteria Handling Procedure in the Microbiology Procedure Manual.
Dry Culturette Swab	Note in computer that specimen was received on a dry swab and that results may be compromised. If transport media is expired, notify the physician or nurse to check their stock for expired transport media.
Multiple specimens from the same source received on the same day (except blood cultures)	Notify physician or nurse in charge that only one specimen per source per day will be processed.
Sputum specimens collected on a swab	Notify physician or nurse in charge that actual sputum must be submitted for culture and that swabs are not acceptable. Request a new specimen.
Stool for Culture and/or Ova and Parasite Screening received on an inpatient who has been hospitalized for greater than three days.	Diarrhea that develops in a patient who has been hospitalized for greater than three days is rarely attributable to enteric bacterial pathogens or parasites. If it is known that the patient has been in the hospital for greater than three days, call the provider and discuss the case and let them know that such a specimen should not be processed if possible.
Foley Catheter Tip received for culture	Notify the physician or nurse in charge that the specimen is not suitable for microbiological analysis.
MYCOBACTERIOLOGY (AFB) / MYCOLOGY (FUNGUS)	
24-hour collection of urine or sputum	Notify physician or nurse in charge that such specimens are unacceptable for culture. Separate morning collections, delivered to the laboratory within 24 hours of collection, are the best samples for analysis.
Swabs for AFB culture	Notify physician or nurse in charge that swabs of any kind are discouraged for AFB culture. Request a new specimen if possible.
PARASITOLOGY	
Excess barium or oil noted in stool submitted for parasitological examination	Notify physician or nurse in charge that barium and/or oil will interfere with the examination and that a new specimen should be submitted in 10 days.

5. SPECIMEN COLLECTION REQUIREMENTS

SPECIMEN	COLLECTION	TRANSPORT	COMMENTS
Acid Fast Culture **(AFB, Mycobacteria)**	Any specimen can be submitted for acid fast bacterial culture. See "BLOOD" instructions for Blood Culture	Follow specimen transport and storage instructions for the various specimen types listed below.	Specimens collected on a swab will be rejected for culture (consult with Lead, may be ok in special cases). The laboratory must be notified in advance if Mycobacterium marinum is suspected.
Anaerobic Culture	There are strict specimen requirements for Anaerobic Culture. Consult with the Microbiology Department for proper specimen selection. The following types of specimens are acceptable for anaerobic culture: Abscesses, Percutaneous Transtracheal Aspirates, Sterile Body Fluids, Tissues and Bones, Suprapubic Urine Aspirations, Sinus Tissue/Contents and Deep Surgical Wounds. The following types of specimens are **NOT** acceptable for anaerobic culture and will be rejected: Superficial Skin Swabs, anything collected on an aerobic culturette swab, Respiratory specimens, Decubitus Ulcer Material, Gastrointestinal Contents, Catheter Tips, Genital specimens, Lochia, Clean Catch Urine.	Specimens must be transported to the lab in anaerobic transport media supplied by a commercial vendor unless specimen is a tissue/bone or liquid in syringe, in which case the specimen may be transported in a sterile container and transferred to or setup into anaerobic conditions ASAP, preferably within 30-60 minutes. Specimens in anaerobic transport media are stable at room temperature for 48 hours.	Strict specimen collection and transport criteria MUST be met The length of time a specimen is stable depends on the nature and volume of the specimen. It is best to process all specimens for Anaerobic Culture as soon as possible.
Bone Marrow	Collect specimen using standard technique for bone marrow aspiration. Inject specimen into a sterile container, or a green topped Heparin Vacutainer tube. Specimen is processed as a TISSUE specimen.	Transport specimen in a sterile container to the laboratory within 2 hours. Specimen may be left at room temperature.	Process as a Tissue specimen.
Bone	See Tissue / Bone		
Blood	Disinfect the arm properly for blood culture venipuncture according to blood culture collection procedure (skin preparation is crucial): Volumes Adults: For routine evaluation of sepsis, draw 2 sets, 15-30 minutes apart, using one aerobic bottle and one anaerobic bottle per set. 10mL max volume into one standard blood culture bottle. For evaluation of suspected endocarditis, draw 3 sets within 24 hours.	Transport specimen to the laboratory within 2 hours. DO NOT REFRIGERATE bottles. Keep at room temperature if transport to the laboratory is delayed.	Collect blood prior to administering antibiotics. When drawing multiple sets of blood cultures, it is recommended to collect them at least 30 minutes apart from different body sites. The exception being in situations of acute septicemia and/or meningitis.

	Children: For routine evaluation of sepsis, draw 2 sets if possible, 15-30 minutes apart, using one pediatric bottle. 4 mL max volume into one pediatric blood culture bottle. BACTERIA: Collect one standard aerobic and one standard anaerobic bottle for each set to be drawn. If pediatric patient or difficult venipuncture, collect one pediatric bottle for each set to be drawn. FUNGI: Collect one full 10mL Heparin Tube per set to be drawn. AFB: Collect one full 10mL Heparin Tube per set to be drawn. VIRUS ISOLATION: Specific Virus must be specified; consult the laboratory for collection requirements.		Blood for culture should not be drawn through existing catheters unless it cannot be obtained through venipuncture. The hub of the catheter must be disinfected thoroughly to minimize contamination. Do not draw from Heel Stick or Finger Stick.
Intravascular Device Catheter Tip	Cleanse the skin around the catheter with alcohol. Aseptically remove the catheter and, using sterile scissors, cut approximately 2-3 inches from the indwelling end of the catheter directly into a sterile container. NOTE: Foley Catheter tips are not acceptable for culture.	Transport specimen in a sterile container to the laboratory within 2 hours. Specimen may be left at room temperature.	Acceptable specimens: Tubing inserted into an artery or vein: Central line, CVP, Hickman, Broviac, Peripheral, Arterial, Umbilical, Hyperalimentation, Swan-Ganz, PICC.
CSF	Disinfect site with iodine solution. Collect CSF using standard lumbar puncture technique under sterile conditions. Transfer specimen to a sterile screw capped tube. Optimum volume BACTERIA CULTURE: >1ml FUNGAL CULTURE: >2ml AFB CULTURE: >2ml ENTEROVIRUS PCR: 0.5ml VIRAL CULTURE: >1ml	Hand carry specimen to the laboratory STAT. DO NOT REFRIGERATE the specimen. Leave at room temperature.	Microbiology should receive tube #2. If only one tube is submitted, send to microbiology first. Blood cultures should also be collected at the time of CSF collection.
Ear	INNER: If eardrum is intact, cleanse the ear canal with a soap solution and aspirate fluid from behind the eardrum. If eardrum has ruptured, collect fluid on a thin flexible swab. OUTER: Use a moist swab to remove any crust from the ear canal. Obtain a sample by firmly rotating a swab in the outer ear canal.	Transport specimen to the laboratory within 2 hours. If transport delay is expected, place specimen into suitable transport media and ensure specimen is moist. Moist specimens in transport media are generally stable for 48 hours at room temperature.	
Eye	Swab eyes by rolling over the conjunctiva. CORNEAL SCRAPINGS: Instill anesthetic drops. Using a sterile spatula, scrape ulcers or lesions and inoculate scraping directly onto media. DONOR CORNEA / LIQUID MEDIUM: The donor cornea and/or liquid medium used to transport the donor cornea	Transport specimen to the laboratory within 2 hours. If transport delay is expected, place specimen into suitable transport media and ensure specimen is moist. Moist eye specimens in transport	Physician may request that culture media (chocolate agar, and/or fungal media) be sent prior to collecting corneal scrapings so that the specimen may be plated at the bedside. Culture media is NOT transport media and should only be used

	may be cultured for microorganisms. Specify bacterial and/or fungal culture on requisition. VIRAL CULTURE: Collect material from the lower conjunctiva with a thin wire swab and place swab into Viral Transport Media. Refrigerate the specimen. CHLAMYDIA /GONORRHEA TESTING: See Chlamydia/Gonorrhea testing chart below.	media are generally stable for 24 hours. For Bacterial Culture, DO NOT REFRIGERATE specimen. For Viral / Chlamydia Culture, Refrigerate the specimen.	where approved by the laboratory prior to collection.
Feces, Stool	Pass directly into a clean container unless otherwise noted below: RECTAL SWABS: Insert swab into the anal sphincter. Gently rotate the swab and remove. Feces should be visible on the swab. VIRAL CULTURE: Pass directly into a clean container with no preservative, then transfer a pea-sized amount of the specimen into Viral Transport Media. Refrigerate the specimen. **NOTE**: Specimens collected in diapers are generally not acceptable for culture unless sufficient fecal material is readily accessible on the surface of the diaper.	Transport specimen to the laboratory within 2 hours. Specimens collected in C&S Transport Vial may remain at room temperature for 96 hours. Specimens collected on rectal swabs may remain at room temperature for 48 hours. If stool is not collected in a preservative transport system, refrigerate the specimen. Rectal swabs for GC Culture must NOT be refrigerated.	Routine stool cultures should not be performed on inpatients who have been in the hospital >3 days. Rectal swabs are best used for infants. Only one stool specimen per day will be accepted for culture. Bacterial Culture screens for Salmonella, Shigella, Aeromonas, Plesiomonas, Yersinia, Vibrio, toxigenic E.coli, and Campylobacter.
Fluids	Includes Sterile Body Cavity Fluids (Amniotic, Ascites, Joint, Synovial, Paracentesis, Pericardial, Peritoneal, Pleural, Thoracentesis), and other types of liquid/fluid specimens (Bile, JP Drainage fluid, Gastric Fluid, Gallbladder Fluid, Abscess Fluid) Disinfect the overlying skin with an iodine solution. Specimen is collected by a physician using a needle and syringe, or during surgery, using sterile technique. Transfer specimen to a sterile container, a sterile red-topped Vacutainer tube, or a sterile green-topped Vacutainer tube. Specimen is suitable for Bacterial, AFB and Fungal cultures. **Always submit as much actual fluid as possible**; swabs are strongly discouraged.	Transport specimen in a sterile container to the laboratory within 2 hours. Specimen may be left at room temperature.	Anaerobic infections should be considered in body fluids. Submitting fluids in anaerobic transport medium is acceptable for both aerobic and anaerobic bacterial culture, provided that the bottles are filled properly (10mL max volume). Physician must specifically request Anaerobic culture if desired.
Fungal Cultures	Any specimen can be submitted for fungal culture. See "BLOOD" instructions for Fungal Blood Culture	Transport specimen in a sterile container to the laboratory within 2 hours. Specimen may be left at room temperature.	Avoid collecting specimens on a swab unless that is the only way to collect the specimen. Skin / scalp scrapings from active margin are preferred. Cleanse skin/nail with alcohol prior to collection.

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Genital Tract, Male	URETHRA: Insert a thin wire swab 2-4 cm into the urethra and rotate for 2 seconds. PROSTATE: Cleanse the head of the penis with soap and water. Massage the prostate through the rectum. Collect fluid on a swab or in a sterile container. VIRAL CULTURE: Vigorously swab any lesions present and place the swab into Viral Transport Media (VTM). If lesions are not present, swab the urethra and place the swab into VTM. Refrigerate the specimen. CHLAMYDIA /GONORRHEA TESTING: See Chlamydia/Gonorrhea testing chart below.	Transport specimen to the laboratory within 2 hours. If transport delay is expected, place specimen into suitable transport media and ensure specimen is moist. Moist specimens in transport media are generally stable for 24 hours; however viability of N.gonorrhoeae may be lost quickly. If Bacterial Culture, DO NOT REFRIGERATE the specimen. If Viral Culture collected in VTM, refrigerate the specimen.	Molecular testing for Chlamydia & Gonorrhea is the testing method of choice to evaluate for STDs in sexually active adults. Trichomonas vaginalis testing is done by upon special request. Urine may be tested, or a specially collected urethral swab. Testing is performed at a reference laboratory.
Genital Tract, Female	CERVIX / VAGINA: Remove any mucous and secretions from the cervix / vagina using a swab and discard the swab. Firmly sample the cervix / vagina using a second swab. Cervix / Endocervix samples are preferred over Vagina samples. BARTHOLIN CYST: Disinfect skin with an iodine solution. Aspirate fluid from the ducts or collect drainage on a swab. CHLAMYDIA /GONORRHEA TESTING: See Chlamydia/Gonorrhea testing chart below. ENDOMETRIUM: Collect transcervical aspirate via a telescoping catheter. Transfer the entire amount of specimen to anaerobic transport medium or sterile container. Do not submit a cervical swab. GROUP B STREPTOCOCCUS CULTURE: For Group B Streptococcus, swab both the vaginal introitus and the anorectum using the same swab. Cultures from the cervix or vagina alone may yield erroneous results. INTRAUTERINE DEVICE: Place entire IUD into a sterile container. Considered “Hardware”. PLACENTA: Submit a portion of the tissue in a sterile container. Do not place tissue in formalin. PRODUCTS OF CONCEPTION: Submit a portion of the tissue in a sterile container. Do not place tissue in formalin. URETHRA: Collect urethral discharge on a swab or insert a thin wire swab into the urethra and rotate gently for 2 seconds.	Transport specimen to the laboratory within 2 hours. If transport delay is expected, place specimen into suitable transport media and ensure specimen is moist. Moist specimens in transport media are generally stable for 24 hours; however viability of N.gonorrhoeae will be lost quickly. If Bacteria Culture, DO NOT REFRIGERATE the specimen. If Viral Culture collected in VTM, refrigerate the specimen. If Vaginitis Panel, specimen must be collected and transported using the Cepheid Swab Specimen Collection Kit at room temperature or refrigerated.	Do not lubricate the speculum prior to specimen collection. Anaerobic culture is not appropriate on vaginal/cervical specimens. Specimens to diagnose Pelvic Inflammatory Disease are collected by invasive techniques. Material from fallopian tubes and ovaries are collected surgically. Molecular testing for Chlamydia & Gonorrhea is the testing method of choice to evaluate for STDs in sexually active adults.

	VIRAL CULTURE: Vigorously swab any lesions present and place the swab into Viral Transport Media (VTM). If lesions are not present, remove any mucous from the endocervix, swab the endocervix and place the swab into VTM. Refrigerate the specimen.		
Hardware	Various pieces of hardware, such as pins, screws, graft pieces, etc, may be received for culture. Surgically remove hardware and place into a sterile container.	Transport specimen in a sterile container to the laboratory within 2 hours. Specimen may be left at room temperature.	Intravascular Devices are NOT considered Hardware.
Respiratory	LOWER RESPIRATORY (BRONCHIAL WASH, LAVAGE, BRUSH, TRACHEAL ASPIRATE, SPUTUM): Collect sputum, aspirate or washing into a sterile container. Place brush into a sterile container with saline to prevent drying. NASAL: Both nares must be sampled: insert a swab into the right nares and rotate gently against the nasal mucosa. Use same swab to sample the left nares. Use for MRSA or Staph aureus Screening Cultures ONLY. NASOPHARYNGEAL SWAB: Gently insert a thin wire swab into the posterior nasopharynx via the nose. Rotate the swab gently for 5 seconds to absorb organisms. NASOPHARYGEAL ASPIRATE: Pass an appropriately sized tube/catheter into the nasopharynx. Aspirate out material. If material cannot be aspirated, instill 2-4 ml of saline into the nostril and aspirate back out. THROAT: Swab the posterior pharynx, tonsils and inflamed areas CHLAMYDIA/GC: See Chlamydia/Gonorrhea testing chart below. MYCOPLASMA: Swab the throat as described above or submit a sputum specimen. Refrigerate the specimen. DENTAL: Using a periodontal scaler, carefully remove subgingival lesion material using a periodontal scaler and place in a sterile container or anaerobic transport medium.	Transport specimen to the laboratory within 2 hours. If delay >2hr is anticipated, refrigerate the specimen. For throat swabs collected in a swab transport media system, specimen is stable for up to 72 hours if swab is moist. Throat swabs for Neisseria gonorrhoeae culture must not be refrigerated and should be plated immediately after collection for best recovery. Specimens for Viral Culture and/or Chlamydia Culture must be placed into VTM and refrigerated. Organisms infecting the nasopharynx are temperature and environment sensitive. Transport promptly.	Expectorated sputum quality is evaluated microscopically for acceptability. Three to five first morning lower respiratory specimens (collected on separate days) are recommended for diagnosis of pulmonary AFB infections. For pediatric patient unable to produce sputum, specimen should be collected via suction. Nasal cultures should only be used to detect carriage of S. aureus. Culturing for Neisseria gonorrhoeae from throat swabs must be made by special request. Nasopharyngeal swabs for routine bacterial culture are discouraged. Nasopharyngeal washes and aspirates are preferred for viral studies. Requests for Nocardia must be made by special request.
Tissue and Bone	Submit piece of tissue or bone in a sterile container. Do not allow specimen to dry out. Cover with a small amount of sterile saline or wrap in sterile gauze moistened with sterile saline. Do not place specimens for culture in formalin.	Transport specimen to the laboratory within 2 hours. Specimen may be left at room temperature.	Always submit as much specimen as possible. Swabs of tissues are strongly discouraged for culture. Viral Culture is sent to Mayo Medical Laboratory for testing.

Urine	CLEAN CATCH: Cleanse the genitals with soap and water or with 2 cleansing towelettes. Collect a midstream portion of urine. Tightly cap the specimen. STRAIGHT CATHETER: Cleanse the urethra with soap and water. Rinse the area with wet gauze pads. Aseptically insert a catheter into the bladder. After about 15 ml of urine has passed, collect remaining urine in a sterile container. Tightly cap the specimen. INDWELLING CATHETER: Disinfect the catheter port with 70% alcohol. Using a needle and syringe, remove urine and place in a sterile container. Tightly cap the specimen. SUPRAPUBIC ASPIRATE: Decontaminate and anesthetize the skin from the umbilicus to the urethra. Introduce the needle into the full bladder. Aspirate approximately 20 ml of urine. Transfer the urine into a sterile screw capped cup for transport. Clearly mark the specimen as a suprapubic aspiration. PEDIATRIC U-BAG: Cleanse the external genitals with soap and water. Attach the U-Bag to the genitals and monitor frequently for urination. As soon as patient has urinated, remove the bag and place bag into a sterile cup. Tightly cap the specimen. CHLAMYDIA /GONORRHEA TESTING: Refer to Chlamydia/GC testing chart that follows for collection instructions.	Transport specimen to the laboratory within 2 hours. If delay >2 hours is anticipated, specimen is stable refrigerated for 24 hours. Specimens collected in a gray topped urine culture preservation tube are stable refrigerated for 48 hours.	Clean Catch urine specimens are best collected first thing in the morning. 24-hour urine specimens are not appropriate for urine culture. Urine obtained from catheter bags is unacceptable for culture. Urine is not appropriate for anaerobic culture, unless it is collected via supra-pubic aspiration.
Wound **(Swab Collected)** **Abscess** **Drainage** **Skin Surface** **Burn** **Cellulitis** **Bites** **Decubitis** **Cyst**	Remove surface exudate and contaminating flora by wiping with 70% alcohol. OPEN: Aspirate using needle and syringe. Or, pass a swab deep into the lesion and firmly sample the lesion base and advancing margin. CLOSED: Aspirate material from the abscess wall using needle and syringe. Transfer specimen to a sterile container, anaerobic transport medium, or remove needle and submit stoppered syringe	Transport specimen to the laboratory within 2 hours. If transport delay is expected, place specimen into suitable transport media and ensure specimen is moist. Moist specimens in transport media are generally stable for 48 hours at room temperature.	Tissue or fluid is always superior to swab specimens. A vigorous sample from the base or advancing margin of the lesion or abscess wall is most productive.

6. CHLAMYDIA and GONORRHEA (CTNG) SPECIMEN COLLECTION

SPECIMEN	COLLECTION	TRANSPORT	COMMENTS
Urogenital Tract	Cervix and Vaginal Swabs: Using the Cepheid Swab Specimen Collection Kit, take the large swab and remove any mucous/discharge around the cervix. DISCARD THE LARGE SWAB. Using the small swab found in the Collection Kit, insert the swab into the endocervix and rotate gently to sample the cells of the endocervix. Place the small swab into the transport tube. Urine: Collect a **FIRST CATCH SAMPLE**. DO NOT CLEANSE the genital area as you would for a clean catch urine specimen. Begin urinating directly into the cup, catching the first portion of the stream into the cup. Collect 20-50 mL of urine. Pap Smear Specimens: CTNG testing from Liquid Based Cytology (LBC) can be sent to a reference laboratory if there is no other option for collection. 1mL of LBC liquid is transferred into an APTIMA Specimen Transfer Tube (green label) after arrival in the laboratory.	Transport to the laboratory promptly. Vaginal Specimens collected in the Cepheid Swab Collection Device should be transported refrigerated and are stable at this temperature for up to 60 days. Unpreserved Urine Specimens must be refrigerated immediately after collection and are stable for 8 days refrigerated and for 45 days once transferred to the Cepheid Urine Collection Device.	Molecular testing for Chlamydia & Gonorrhea is the testing method of choice to evaluate for STDs in sexually active adults. Tested using PCR Methodology Should not be performed on pre-pubescent children for confirmation of sexual abuse. DNA methods should not be used as a Test of Cure (TOC). Midstream Clean Catch urine specimens are discouraged.
Throat **Rectum**	Throat and Rectal Swabs: Using the Cepheid Swab Specimen Collection Kit, use the small swab found in the Collection Kit to sample the area. Place the small swab into the transport tube.	Transport to the laboratory promptly. Specimens collected in the Cepheid Swab Sample Collection Device should be transported refrigerated and are stable at this temperature for up to 60 days.	Tested using PCR Methodology Should not be performed on pre-pubescent children for confirmation of sexual abuse. DNA methods should not be used as a Test of Cure (TOC).
Eye, Nose, Peritoneal Fluid	Swab Specimens (GenProbe APTIMA) – If collected using the GenProbe APTIMA collection kit (white label unisex swab), then specimen can be sent to Mayo for testing by molecular methodology. Swab Specimens (Non-APTIMA Collection) - If specimen was not collected using a GenProbe APTIMA collection system, then culture methodology must be performed. For Chlamydia Culture, remove one swab and place into Viral Transport Media and send to Mayo for Chlamydia Culture. For Gonorrhea culture, use the second swab for Culture, Gonorrhea. Peritoneal Fluid – Transfer 1mL of peritoneal fluid into APTIMA Specimen Transfer Tube (green label) after arrival in the laboratory.	Transport to the laboratory promptly. Specimens in APTIMA tubes should be refrigerated after collection. Swab specimens not collected with the APTIMA device should be processed without delay.	Testing can be performed by nucleic acid amplification method or by Culture method, depending on how the specimen is collected. Specimen sources are not FDA approved for testing by this method. Performance characteristics were determined by the reference laboratory in a manner consistent with CLIA requirements.

Tissues, Body Fluids, and other specimens not listed above	Chlamydia - Culture must be performed. Place specimen into a sterile container and transport to the laboratory. The laboratory will transfer specimen into Viral Transport Medium, M4 or M5 Media for processing. Gonorrhea – Culture must be performed. Place specimen into a sterile container and transport to the laboratory.	Transport to the laboratory promptly. Chlamydia Specimen must be refrigerated after placing into Viral Transport Media. Gonorrhea Specimen must remain at room temperature and transported to the laboratory within 2 hours.	Chlamydia Culture sent to a reference laboratory.

7. PARASITOLOGY SPECIMEN COLLECTION

SPECIMEN	COLLECTION	TRANSPORT	COMMENTS
Feces	Pass feces directly into a clean container. Avoid contaminating the specimen with urine or water from the toilet. Refrigerate the specimen until it can be placed into the appropriate preservative containers. Delay parasitology specimen collection for 10 days after the administration of barium, oil, magnesium or crystalline compounds	Specimens should be refrigerated and transported to the laboratory within 2 hours. Feces will be aliquotted into proper preservative vials upon receipt in the laboratory	It is recommended that 2-3 specimens per patient are enough for detection of parasites.
Pinworm Paddle	Use commercially available Pinworm Paddle for specimen collection (supplied by the laboratory). Do not use scotch tape. Collect first thing in the morning before using the bathroom. Gently press the paddle's sticky side against several areas on the perianal region while spreading open the perianal folds. Place the paddle into the transport container and tighten the cap.	Transport to the laboratory promptly – examine immediately. Maintain the specimen at room temperature	To increase the chances of collecting eggs, collect specimen between 10pm and midnight.
Duodenal Aspirate	Obtain a specimen via nasogastric intubation or via an Enterotest Capsule. Place aspirate or string into a sterile container and transport to the laboratory immediately. Alternately, place aspirate or string into 10% formalin (pink vial) and transport to the laboratory.	Specimens can remain at room temperature. Enterotest string may be placed into a cup with saline moistened gauze to prevent drying.	Useful for detecting infections caused by Giardia and Strongyloides when other means of detection have failed.
Blood, Malaria and other blood parasites	Obtain blood specimen midway between, or just prior to, an expected fever spike. Blood is collected in a purple topped, EDTA, Vacutainer tube. Collect using standard venipuncture techniques.	Transport to the laboratory immediately. Maintain the specimen at room temperature.	

8. REFERENCES

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