Specimen Type	***For Additional Information, Refer to HMC Online Test Catalog Specimen Collection Guidelines***	Device/ Min Volume	Transport Local	 Courier/ Delayed	Replica Limit (if applicable)	Comments
ABSCESS	Remove surface exudate by wiping with sterile saline or 70% ETOH					**Tissue or fluid is always superior to a swab specimen. Source/site must be clearly documented on specimen, computer, or requisition.** A sample from the base of the lesion and a sample from the abscess wall are most productive.
Open	Aspirate if possible or pass a swab deep into lesion's advancing edge	Routine Culture Swab	≤2h RT	≤ 24 h. RT	1/day/source	Sampling of the surface area can introduce colonizing bacteria not involved in the infectious process.
Closed	Aspirate abscess wall material with needle and syringe. Remove needle, submit with cap on syringe.	Capped syringe, or Routine and Anaerobic culture swabs ≥ 1 ml	≤1h. RT	≤ 24 h. RT	1/day/source	Submit aspirate for aerobic and anaerobic culture. If swabs are used, collect both routine and anaerobic culture swabs.
BITE WOUND	See ABSCESS					Do not culture animal bite wounds ≤12 h old (agents are usually not recovered) unless they are on the face or hand or unless signs of infection are present.
BLOOD CULTURE	**Disinfection of blood culture bottles**: apply 70% isopropyl alcohol to stoppers, wait one minute. **Disinfection of venipuncture site**: 1. After palpating the vein, cleanse site with Chlora-Scrub/ SwabStick - follow package directions 2. Allow site to dry 3. *Do not re-palpate the vein at this point.* 4. Collect Blood	**Adult or Child over 60 lbs:** (2 bottle set) Bactec Plus+ Aerobic and Bactec Anaerobic Lytic/F bottles – 10 ml per bottle **Child less than 60 lbs:** (1 bottle) Bactec Peds Plus bottle – 1-3 ml per bottle	≤2 h. RT	≤ 24 h. RT	3/day (Separate collection sites)	Acute sepsis: 2-3 sets from separate sites, all within 10 min. Endocarditis, acute: 3 sets from 3 separate sites, over 1-2 h Endocarditis, subacute: 3 sets from 3 separate sites, taken ≥15 min apart; if negative @ 24 h., obtain 3 more sets. Fever of unknown origin: 2-3 sets from separate sites ≥1 h apart; if negative at 24 h., obtain 2-3 more sets. **Cultures drawn through indwelling intravascular devices are discouraged, due to the higher risk for contamination by colonizing organisms. Peripheral venipuncture set must accompany any line-drawn set, and site of collection indicated on bottles.**

BLOOD CULTURE, FUNGUS	Disinfect venipuncture site as for routine blood culture	Isolator tube	≤2 h. RT	≤ 24 h. RT		Draw 2 Isolator tubes from separate venipunctures. Order "***Culture, Fungal – Blood***" x 2
BLOOD CULTURE, AFB	Disinfect venipuncture site as for routine blood culture	Green top 10ml Vacutainer tube (Heparin)	≤2 h. RT	≤ 72 h. RT		Draw 2 Green top tubes from separate venipunctures. Order "***Culture, Mycobacterial – Blood***" x 2
BONE MARROW	Prepare puncture site as for surgical procedure	Inoculate blood culture bottle or a lysis centri-fugation tube (Isolator) 10 ml.	≤2 h. RT	≤72 h. RT		Additional Isolator tubes must be drawn if AFB and Fungal cultures are required.
BURN	Clean and debride wound prior to specimen collection	Tissue in a sterile screw-cap container.	≤2 h. RT	≤24 h. RT	1/day/source	A 3-to-4-mm punch biopsy is optimum when cultures are ordered. Process for aerobic culture only. Surface cultures of burns may be misleading.
CATHETER (IV)	1. Cleanse the skin around catheter site with alcohol. 2. Aseptically remove catheter and clip a 5-cm distal tip of the catheter directly into a sterile tube or cup 3. Transport directly to Microbiology to prevent drying.	Sterile screw-cap tube or cup	<15min RT	≤24 h. 4°C		
CATHETER (FOLEY)	Not Acceptable for Culture					
CELLULITIS	1. Cleanse site by wiping with sterile saline or 70% alcohol. 2. Draw small amount of sterile saline into fine needle syringe. 3. Aspirate the area of maximum inflammation. 4. Transfer aspirate into sterile screw-cap tube, or remove needle from syringe and cap it to submit syringe to lab.	Sterile screw-cap tube, or small syringe, capped, needle removed.	≤2h RT	≤ 24 h. RT	1/day/source	
CSF	Obtain via standard practice for lumbar puncture.	Sterile Tube	< 15 minutes RT	≤24 h. RT	None	Minimum volumes: Bacteria: >1 ml, Viruses: >1 ml AFB/Fungi >2 ml per test

DECUBITUS ULCER	A swab specimen is not the specimen of choice. 1. Cleanse surface with sterile saline. 2. Perform debridement 2. Collect biopsy sample; or vigorously swab the base of the lesion. 3. Place in appropriate transport system.	Sterile container For tissue	≤2 h. RT	≤24 h. RT	1/day/source	A decubitus swab provides little clinical information; this collection method is strongly discouraged. A tissue biopsy sample or a needle aspirate is the specimen of choice. This source is unacceptable for anaerobic culture
EAR	Tympanocentesis should be reserved for complicated, recurrent, or chronic persistent otitis media.					
Inner	1. For an intact ear canal with intact ear drum clean the ear canal with soap solution and collect fluid via syringe aspiration. 2. For a ruptured ear drum, collect fluid on a flexible-shaft swab via an auditory speculum.	Sterile tube, Swab transport or anaerobic system	<2 h. RT	≤24 h RT	1/day/source	Throat or nasopharyngeal cultures are not predictive of agents responsible for otitis media and should not be submitted for that purpose.
Outer	1. Use a moistened swab to remove any debris or crust from the ear canal. 2. Obtain a sample by firmly rotating the swab in the outer canal.	Swab transport	<2 h. RT	≤24 h 4°	1/day/source	For otitis externa, *vigorous* swabbing is required since surface swabbing may miss streptococcal cellulitis.
EYE						
Conjunctiva-(Conjuctivitis	Sample both eyes using separate swabs (pre-moistened with sterile saline) by rolling over conjunctiva.	Swab transport	Swabs <2h, RT	≤24 h, RT	1/day/source	
Corneal scrapings (Keratitis)	1. Obtain conjunctival swab specimens as control (above) 2. Instill 2 drops of local anesthetic. 3. Using a sterile spatula, scrape ulcers or lesions and inoculate scraping directly onto media. 4. Apply remaining material to 3 clean glass slides for staining.	Scraping: Direct inoculation to media described below: CHOC, Thio broth SAB, IMA, ANABAP, MGIT broth	Seal media with tape prior to transport ≤15 min, RT	N/A	None	It is recommended that swabs for culture be taken prior to anesthetic application, whereas corneal scrapings can be obtained afterward. Obtain Media from Microbiology prior to collection procedure. Order cultures for routine bacteria, anaerobes, fungi and AFB.

Vitreous or Aqueous Fluid Aspirates (Endophthal-mitis)	1. Prepare eye for needle aspiration of fluid. 2. Inoculate fluid directly onto media and clean glass slides (see Keratitis) -or- Submit in capped syringe; remove needle.	Directly inoculated media, or Sterile capped syringe (needle removed)	Seal media with tape prior to transport ≤15 min, RT	Deliver inoculated media immediately Capped syringe ≤24 h. RT°	None	Anesthetics may be inhibitory to some etiologic agents. Obtain Media from Microbiology prior to collection procedure Order cultures for routine bacteria, anaerobes, fungi and AFB.
FECES						
Routine Bacterial Enteric Pathogens	Pass directly into a clean dry container. Transport specimen to Micro Lab within 1 hr of collection or transfer a portion to Cary-Blair transport system.	Clean, leakproof wide-mouth container. ≥2g, or Cary-Blair preservative (fill to red line)	Fresh: ≤2 h, RT Cary-Blair: ≤24 h, RT	≤72 h, 4°C	1/day	This panel includes *Salmonella, Shigella, Campylobacter, Enterohemorrhagic E. coli* (O157 and other serotypes), and screen for *Aeromonas/ Plesiomonas* spp. Separate culture for *Yersinia* and *Vibrio spp.* available upon request. Not performed on patients whose length of stay is >3 days & admitting diagnosis was not gastroenteritis. Tests for *C. difficile* should be considered in these cases.
Clostridium difficile	Pass diarrheal stool directly into a clean, dry container. Diarrheal stool is defined as stool assuming shape of its container. A swab specimen is not acceptable for testing.	Clean, leakproof wide-mouth container	≤1-24 h, RT	5 days, 4°C	1 per 10-days	Patients should be passing≥5 liquid or soft stools per 24 h. Testing of formed or hard stool is unproductive, and is not performed. Test not performed if history of assay within past 10 days. Test not performed within 30 days of positive result.
Leukocytes	Pass feces directly into clean dry container. Transport specimen to Micro Lab within 1 hr. of collection if unpreserved.	Sterile, leakproof wide-mouth dry Container or Ecofix preservative.	≤1 h., RT	≤24 h., 4°C (Ecofix or PVA preserved only)	1/day	Test performed in Hematology lab.
Rectal swab	1.Carefully insert a swab ≈ 1 in. beyond the anal sphincter 2. Gently rotate swab to sample the anal crypts. 3. Feces should be visible on the swab for detection of diarrheal pathogens 4. For VRE PCR, no visible stool on swab.	Swab transport	≤2 h., RT	≤24 h., RT (If VRE by PCR, stable @ 4°, 5 days)	1/day	Reserved for detecting *Neisseria gonorrhoeae,* HSV, and anal carriage of group B *Streptococcus* spp. or for pediatric patients unable to pass a specimen. Also used for VRE surveillance by PCR upon hospital admission of designated patient populations. Refrigerate if delivery delayed.

FECES (cont.)						
Parasitology	1. Pass diarrheal stool directly into a clean, dry container. 2. Transfer volume up to red fill line in Para Pak® Eco-Fix preservative (green cap) and Para Pak® Clean Vial (white cap).	Clean, leakproof container and Para Pak® Eco-Fix (green cap) preservative (fill to red line)	**Fresh** RT, <30 min **Preserved** <24 hrs, RT	<72 hrs, 4°C	3, collected on three separate days, more than 24-48 hrs apart	Not performed on patients whose length of stay is >3 days & admitting diagnosis was not gastroenteritis. Tests for *C. difficile* should be considered in these cases.
FISTULA	See ABSCESS					
FLUIDS						
abdominal, amniotic, ascites, bile, joint, paracentesis, pericardial, peritoneal, pleural, synovial, thoracentesis	1. Disinfect overlying skin with 2% iodine tincture or Chlorascrub product. 2. Obtain specimen via percutaneous needle aspiration or surgery. 3. Transport specimen to laboratory immediately.	Sterile, leakproof container or syringe (capped), when anaerobic culture indicated. Bacteria, ≥ 1 ml. Fungi, ≥ 10 ml. AFB ≥ 10 ml.	≤15 min, RT	≤24 h, RT Pericardial fluid & fluids for fungal cultures: ≤24 h, 4°C	None	Always submit as much fluid as possible; never submit swab dipped in fluid. Swab specimens submitted with no volume of fluid will be processed as Wound Culture.
GENITAL						
Female						
Amniotic Fluid	Aspirate via amniocentesis, C-section, or intrauterine catheter.	Anaerobic transport System; ≥1 ml in Syringe (capped)	≤15 min, RT	≤24 h, RT	None	Include anaerobic culture.
Bartholin	1. Disinfect skin with an iodine preparation. 2. Aspirate fluid from ducts	Anaerobic transport system; Syringe (capped)	≤ 1 h, RT	≤24 h, RT	1/day	Include anaerobic culture.

Cervical	1. Visualize the cervix using a speculum without lubricant. 2. Remove mucus and secretions from the cervix with a swab and discard the swab. 3. Firmly sample the endo-cervical canal with a newly-obtained sterile swab.	Swab transport	≤ 1 h, RT	≤24 h, RT	1/day	See information on virus and *Chlamydia* collection and transport needs – (Mayo Medical Laboratories) *Neisseria gonorrhoeae* is found in exudates, whereas chlamydiae infect specific cells.
Cul-de-Sac	Submit aspirate or fluid.	Syringe (capped); Anaerobic transport system, 1ml	≤ 1 h, RT	≤24 h, RT	1/day	Include anaerobic culture.
Endometrial	1. Collect transcervical aspirate via telescoping catheter. 2. Transfer the entire amount to an anaerobic transport system.	Anaerobic transport system, >1 ml	≤ 1 h, RT	≤24 h, RT	1/day	
IUD	Place entire device in a sterile container and submit at RT.	Sterile container	≤ 1 h, RT	≤24 h, RT		Include anaerobic culture.
Urethral	Collect 1 h. after patient has urinated. 1. Remove exudate from the urethra orifice. 2. Collect discharge material on a swab by massaging the urethra against the pubic symphysis through the vagina.	Swab transport	≤ 1 h, RT	≤24 h, RT	1/day	If no discharge can be obtained, wash the external urethra with Betadine soap and rinse with water. Insert a urethrogenital swab 2-4 cm into the urethra; rotate swab for 2 s.
Products of Conception	Surgical collection of tissue or aspirate	Sterile container	≤ 1 h, RT		None	(Fetal tissue, placenta, membranes, lochia)
Vaginal	1. Wipe away excessive amt. of secretion or discharge. 2. Obtain secretions from mucosal membrane of the vaginal vault with a sterile swab or pipette.	Swab transport	≤ 1 h, RT	≤24 h, RT	1/day	
Male or Female						
Lesion	1. Clean the lesion with sterile saline and remove the surface of the lesion with a sterile scalpel blade. 2. Allow the transudate to accumulate. 3. Pressing the base of the lesion, *firmly* sample exudate with a sterile swab.	Swab transport	≤ 1 h, RT	≤24 h, RT	1/day	Viral studies are performed by PCR method at reference laboratory. Specify HSV, VZV or both HSV/VZV

Male						
Prostate	1. Cleanse the glans with soap and water. 2. Massage the prostate through the rectum. 3. Collect fluid on a sterile swab or in a sterile tube.	Swab transport or sterile tube	≤ 1 h, RT	≤24 h, RT	1/day	More relevant results may be obtained by adding a urine specimen immediately before and after massage to indicate urethral and bladder organisms.
Urethral	Insert a urethra-genital swab 2-4 cm into the urethral lumen, rotate the swab, & leave it in place for at least 2 seconds to facilitate absorption.	Swab transport	≤ 1 h, RT	≤24 h, RT		
HAIR **Dermatophytosis**	1. With forceps, collect at least 10-12 affected hairs with the base of the shaft intact. 2. Place in a clean tube or container.	Clean container, 10 hairs.	≤24 h, RT		1/day/site	Order fungus culture only Collect scalp scales, if present, along with scrapings of active borders of lesions. Note any antifungal therapy taken recently.
NAIL **Dermatophytosis**	1. Wipe the nail with 70% alcohol using gauze (not cotton) 2. Clip away a generous portion of the affected area and collect material or debris from *under* the nail. 3. Place material in a clean container.	Clean container, Enough scrapings to cover the head of a thumb tack	≤24 h, RT		1/day	Order fungus culture only
RESPIRATORY						
Lower						
Broncho-Alveolar lavage, Bronchial brush or wash, Tracheal aspirate	1. Place aspirate or washing in a Lukens trap. 2. Place brush in a sterile container with 1 ml. saline.	Sterile container, Lukens trap Min. amounts bacteria, >1 ml; fungi, 3-5 ml; AFB, 5-10 ml	≤2 h, RT	≤24 h, 4°C	1/day per specimen type or site.	For quantitative analysis of brushings, place brush in 1.0 ml of sterile, non-bacteriostatic saline. Fungal recovery is primarily for *Cryptococcus* spp. and some filamentous fungi; other yeasts rarely cause lower respiratory tract infection.
Sputum, expectorated	1. Collect under the direct supervision of a nurse or physician. 2. Have the pt. rinse or gargle with water to remove superficial flora 3. Instruct patient to cough deeply to produce a lower respiratory specimen	Sterile container Min. amounts bacteria, >1 ml; fungi, 3-5 ml;	≤2 h, RT	≤24 h, 4°C	1/day	For pediatric patients unable to produce a specimen, a respiratory therapist should collect a specimen via suction. Quality of all expectorated and induced sputums will be assessed by review of

	(not post-nasal fluid). 4. Collect in sterile container.	AFB, 5-10 ml				Gram stain. The best specimen should have ≤ 10 squamous cells per 100x field.
Sputum, induced	1. Have the patient rinse the mouth with water after brushing the gums and tongue. 2. With the aid of a nebulizer, have the patient inhale ≈ 25 ml of 3-10% sterile saline. 3. Collect the induced sputum in a sterile container.	Sterile container	≤2 h, RT	≤24 h, 4°C	1/day	Quality of all expectorated and induced sputums will be assessed by review of Gram stain. The best specimen should have ≤ 10 squamous cells per 100x field.
Upper						
Oral, Lesion	1. Remove oral secretions and debris from the surface of the lesion with a swab and discard swab. 2. Using second swab, vigorously sample the lesion, avoiding any areas of normal tissue.	Swab transport	≤2 h, RT	≤24 h, 4°C	1/day	For R/O yeast (*Candida*, thrush) send to lab with order for Gram stain. Do not order Fungal culture. If recovery of yeast isolate for susceptibilities is desired, order Respiratory Culture (CXRES). Testing for viral pathogens is performed at reference laboratory by PCR method only. Specify HSV, VZV or HSV/VZV.
Nasal	1. Insert a swab ≈2 cm into the nares. 2. Rotate the swab against the nasal mucosa.	Swab transport	≤2 h, RT	≤24 h, 4°C	1/day	Anterior nares cultures is reserved for detecting staphylococcal and streptococcal carriers only. For MRSA PCR testing, both right and left nares are sampled using the same swab.
Nasopharynx	1. Gently insert a rayon or polyester swab into posterior nasopharynx via the nose. 2. Rotate the swab slowly for 5s to absorb secretions. 3. Remove the swab & place in transport tube.	NP Swab (flexible-shafted, tiny tip) in: 3 ml UTM	**Flu**: ≤24 h, RT; **Bordetella** ≤8 h, RT	≤7d, 4°C	1/day	Required specimen for: *Influenza* A/B/RSV by PCR and *Bordetella* spp. PCR tests
Throat	1. Depress the tongue with a tongue depressor. 2. Sample the posterior pharynx, tonsils and inflamed areas with a sterile swab.	Swab transport	≤2 h, RT	≤24 h, RT	1/day	For R/O yeast (*Candida*, thrush) send to lab with order for Gram stain. Do not order Fungal culture. If recovery of yeast isolate for susceptibilities is desired, order Respiratory Culture (CXRES)
SKIN						
Dermatophytosis	1. Cleanse the affected area with 70% alcohol.	Clean container,	≤2 h, RT	≤24 h, 4°C	1/day/site	

	2. Gently scrape the surface of the skin at the active margin of the lesion. *Do not draw blood.* 3. Place the sample in a clean container.	Enough scrapings to cover the head of a thumb tack				
Tissue	1. Remove necrotic tissue or exudate from surface by wiping with sterile saline or 70% ETOH. 2. Collect fresh sample using aseptic technique (surgical) 3. Submit in a sterile container 4. For small samples, add several drops of sterile saline to keep moist. 5. *Do not allow tissue to dry out*	Anaerobic transport system or a sterile screw-cap container.	≤30 min, RT	≤24 h, RT	None	Tissue should measure ≤ 3 cm. in diameter. *Never submit a swab that has simply been rubbed over the surface.* Swab specimens submitted from surgical sites will be processed as Wound Culture.
URINE						
Female, midstream	1. Thoroughly cleanse the urethral area with soap and water. 2. Rinse the area with wet gauze pads. 3. While holding the labia apart, begin voiding. 4. After several milliliters have passed, collect a mid-stream portion without stopping the flow of urine.	Sterile container, ≥1 ml or urine culture preservative tube	≤2 h, RT Preserved: ≤48 h, RT	Unpreserved ≤24h, 4°C Preserved: ≤48 h, RT	1/day	
Male, midstream	1. Cleanse the glans with soap and water. 2. Rinse with wet gauze pads. 3. Holding the foreskin retracted, begin voiding. 4. After several milliliters have passed, collect a midstream portion without stopping the flow of urine.	Sterile container, ≥1 ml or urine culture preservative tube	≤2 h, RT Preserved: ≤48 h, RT	Unpreserved ≤24h, 4°C Preserved: ≤48 h, RT	1/day	The first part of the urine stream is used for probe tests and antigen tests for chlamydiae. Wait 2 h after the last micturition. The midstream portion can be used for culture.

Straight Catheter	1. Thoroughly cleanse the urethral area with soap and water. 2. Rinse the area with wet gauze pads. 3. Aseptically, insert a catheter into the bladder 4. After allowing ≈15 ml to pass, collect urine into sterile tube or container.	Sterile container, ≥1 ml or urine culture preservative tube	≤2 h, RT Preserved: ≤48 h, RT	Unpreserved ≤24h, 4°C Preserved: ≤48 h, RT	1/day	If preparation is inadequate, the procedure may introduce urethral flora into the bladder and increase the risk of iatrogenic infection. **Always indicate collection method when urine is obtained via catheter**.
Indwelling Catheter	1. Disinfect the catheter collection port with 70% alcohol. 2. Use a needle and syringe to aseptically collect 5-10 ml of urine. 3. Transfer to a sterile tube or container.	Sterile container, ≥1 ml or urine culture preservative tube	≤2 h, RT Preserved: ≤48 h, RT	Unpreserved ≤24h, 4°C Preserved: ≤48 h, RT	1/day	Culture should not be collected from indwelling catheter which has been in place >24 hrs. Culture when new catheter is placed. **Always indicate collection method on specimen container when urine is obtained via catheter.** **Never submit urine obtained from a catheter bag.**
WOUND	See ABSCESS					