

| Specimen | Container/ Collection Swab | Patient preparation | Volume | Transportation Considerations and Storage prior to processing | Comments |
|---|--|---|--|--|---|
| ANAEROBIC CULTURES: BODY FLUIDS, SECRETIONS, PUS | | | | | |
| ANAEROBIC CULTURES: Body fluids, Secretions, pus | Sterile Cup, Anaerobic transport system, E-swab | Decontaminate skin | Greater than 1 ml | Do not refrigerate-transport immediately to laboratory | |
| BLOOD | | | | | |
| BLOOD | Blood culture bottle (s) Bacti-Alert | Decontaminate skin following blood culture collection procedure | 10 ml per bottle (adult and older pediatric) 1-2 ml (infants) | Transport at room temperature to laboratory ASAP. | |
| | Isolator tube | | 3 sets per 24 hours or 4-6 for fever of unknown origin | | |
| BONE MARROW | | | | | |
| BONE MARROW | Blood culture bottles or Tryptic soy broth | Same as for blood culture collection | Greater than 1 ml. | Transport at room temperature to laboratory ASAP | |
| BODY FLUIDS (OTHER THAN BLOOD, URINE, CSF) | | | | | |
| Bile | Sterile screw-cap tube or Anaerobic transport system | Surgery or decontaminate skin before aspiration | Several ml (first ml from post-op drain site often contains contaminants) | Immediately at room temperature | Consider viruses, fungi and parasites for analysis. |
| Breast milk | Sterile screw cap tube, vacutainer, Anaerobic transport system | Skin decontamination of nipple | Several ml; first few may be contaminated | Immediately at room temperature | |
| Hematomas | Sterile screw cap tube, vacutainer, Anaerobic transport system | Skin decontamination | Several ml | Immediately at room temperature | |
| Joint Fluid | Sterile screw cap tube, vacutainer, Anaerobic transport system | Skin decontamination | Several ml | Immediately at room temperature | Do not add acetic acid or other fluid which may precipitate protein. Distilled sterile water is acceptable. |
| Pericardial fluid | Sterile screw cap tube, vacutainer, Anaerobic transport system | Surgery or decontaminate skin. | Several ml | Immediately at room temperature | Consider viruses |

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| Peritoneal fluid | Sterile screw cap tube, vacutainer, Anaerobic transport system | Surgery or decontaminate skin before aspiration | Several ml or more | Immediately at room temperature | Same as for joint fluids |
| Pleural fluid | Sterile screw cap tube, vacutainer, Anaerobic transport system | Surgery or decontaminate skin before aspiration | Several ml or more | Immediately at room temperature | |

CATHETER TIPS

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|---|-------------------------|---|--|---|---|
| CSF | Sterile screw-cap tube. | Skin decontamination | Several ml if possible | Immediately at room temperature- can be held at 37°C for 6 hours (viruses can be held 4°C for 72 hours) | |
| Foley catheter | Not recommended | Not recommended | Not recommended | | Foley catheters or tips should not be cultured. |
| Vascular cannulae, venous access devices, arterial lines | Sterile container | Skin decontamination; careful aseptic removal mandatory | Segment near skin and tip end should be used; use sterile scissors to cut. | Immediately at room temperature | |

EAR

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|-----------------|--|--|--|--|--|
| Inner | Sterile container, anaerobic transport or E-swab | Clean ear canal with mild soap solution before myringotomy | Aspirate | Immediately at room temperature, can be held up to 6 hours at room temperature | |
| External | Moist sterile swabs Stuart's or Amies media | Cleanse skin around eye with mild antiseptic. Remove makeup. | Moist swab. For viral or Chlamydia infection and cytology conjunctival and/or corneal scrapings are necessary. Make two slides per lesion, | Twenty four hours at room temperature | |
| Outer | Aerobic swab with Stuart's media or Amies media | Wipe away crust with sterile saline, | Swab | Twenty four hours at room temperature | |

FUNGAL

| Specimen Source | Fungal agent | | | Collection and Transport Procedures | Comments |
|---------------------------------|-------------------|--|--|--|---|
| Abscess /drainage /wound | Yeasts | | | Aspirate sample and transport in a syringe without needle. | Sample advancing margin of lesion. |
| | Filamentous fungi | | | Submit in a sterile screw-cap container. | Surgery specimens should contain a portion of the abscess wall. |

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| | Aerobic actinomycetes | | | Collect sample with aerobic swab transport system with Stuart or Amies medium. Non-cotton tip swabs are recommended. <i>Swabs are the least preferred collection device.</i> | If submitting swabs several should be sent. |
| Blood | <i>H. capsulatum</i> | | | Isolator system (especially good for molds and <i>H. capsulatum</i> .) | Most <i>Candida</i> spp. Can be recovered in bacterial blood culture systems. |
| | <i>C. neoformans</i> | | | | Antigen testing may be useful |
| | <i>Candida</i> spp. | | | Automated Blood culture bottles | |
| | <i>Malassezia</i> spp. | | | | |
| Bone marrow | <i>H. capsulatum</i> | | | Isolator | At least 0.5 ml of specimen. |
| | <i>C. neoformans</i> | | | 5 ml in a heparin tube | |
| | | | | Automated blood culture systems (Pediatric bottles) | |
| Catheter | <i>Candida</i> spp. | | | Place 5 cm of the distal end into sterile screw-cap container. | A standardized method for identifying catheter-related fungal infection has not been developed. |
| | <i>Malassezia</i> spp. | | | | |
| Catheter exit site | | | | Using aerobic swab transport system with Stuart's or Amies medium, collect sample from infected skin site surrounding the intravenous line. | Fungal blood cultures should also be submitted. |
| Eye | <i>C. albicans</i> | | | Use direct inoculation onto appropriate medium. The physician should contact the laboratory to obtain medium prior to procedure. | Scrapings: lightly touching both sides of the spatula in a row of separate C streak marks. |
| | <i>C. neoformans</i> | | | | Conjunctiva: sample both eyes separately (even if one is uninfected) |
| | Filamentous fungi | | | | |
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| Hair/nails | <i>Trichophyton</i> spp <i>Epidermophyton</i> spp | | | Scrape scalp (using sterile toothbrush or small hairbrush, microscope slide or scalpel) and if possible, collect at least 10 broken hairs for dermatophyte infection, scrape infected nail area, or clip infected nail. | Nails should be cleaned with an alcohol wipe and scraped deeply enough to obtain recently invaded nail tissue. |

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| | <i>Microsporium</i> spp. | | | Use bedside inoculation onto appropriate fungal medium or transport in a clean envelope or between two clean glass slides taped together and placed in a slide carrier. | |
| | <i>Candida</i> spp. | | | | Humidity in a closed transport system may cause the sample to be overgrown by bacteria. |
| | <i>Malassezia</i> spp. | | | | |
| | <i>Sporothrix schenckii</i> | | | | |
| Respiratory sites | Yeast and filamentous fungi | | | Collect 3 early-morning sputa resulting from a deep cough. | 24-h sputum collections are not acceptable for fungal culture. |
| | Aerobic actinomycetes | | | Transport specimens in a sterile screw-cap container | |
| Skin/intertriginous areas | <i>Trichophyton</i> spp | | | Skin surface should be disinfected the 70% alcohol. The specimen should be collected from the edge of the lesion and inoculated directly onto fungal medium or placed in a clean envelope or between two slides taped together and transported in a slide carrier. | Humidity in a closed transport system may cause the sample to be overgrown by bacteria. |
| | <i>Epidermophyton</i> spp | | | | |
| | <i>Microsporium</i> spp. | | | | |
| | <i>Candida</i> spp. | | | | |
| | <i>Malassezia</i> spp. | | | | |
| | <i>Sporothrix schenckii</i> | | | | |
| Sterile fluids (CSF, pleural, pericardial, joint, peritoneal) | <i>H. capsulatum</i> | | | Collect a minimum of 2 ml in a sterile container. Heparin may be used. | If CSF, cryptococcal antigen testing may be useful. |
| | <i>C. neoformans</i> | | | | |
| Tissues/biopsy specimens | Yeast and filamentous fungi | | | Collect tissue and transport in sterile screw-cap container with a small amount of nonbacteriostatic saline to prevent drying. | The size of the tissue specimen should approximate that of a pea. |
| | Aerobic actinomycetes | | | | |
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| Urine | Yeast | | | First morning clean-catch urine in sterile screw-cap cup | Most <i>Candida</i> spp. will grow on bacterial culture media. |
| | <i>C. immitis</i> | | | Catheterized specimen in sterile screw-cap cup | 24-h urine collections and Foley catheter urine specimens are not acceptable. |
| | <i>H. capsulatum</i> | | | Urine collected in a sterile screw-cap cup following prostatic massage | Samples for histoplasma and <i>Blastomyces</i> antigen testing may be useful. |
| | <i>B. dermatitidis</i> | | | <i>Note: Patients with blastomycosis or cryptococcosis may have prostatic infection</i> | The significance of growth of other molds from urine specimens should be considered cautiously. |

GENITAL TRACT-FEMALE

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|------------------------------|--|--|--|--|--|
| Amniotic fluid | Sterile container | | Uncontaminated fluid | | Treat as any other sterile body fluid. |
| Group B <i>Streptococcus</i> | Sterile swab in Stuarts media | See Collection procedure | Vaginal and rectal swab | 24 hours refrigerated or at room temperature | |
| Cervix (endocervix) | Sterile container, transport swab with Stuart's or Amies media; E-swab for more fastidious organisms Use appropriate collection containers for specific organisms. | Wipe cervix clean of vaginal secretion and mucus. Use speculum and no lubricant. | Uncontaminated endocervical secretions; two swabs. | Twenty four hours at room temperature | Viability of <i>N gonorrhoeae</i> decreases substantially after several hours. |
| Cervix (endocervix) GC/CT | Sterile polyester swab in M4RT | Wipe cervix clean of vaginal secretion and mucus. Use speculum and no lubricant | swab | Refrigerate | Specimens submitted for GC/CT PCR testing in M4 medium will not be aliquoted or sent for additional testing until molecular testing complete. Store refrigerated for up to 7 days. |
| Endometrium | Sterile container, anaerobic transport system; E-swab | Wipe cervix clean of vaginal secretion and mucus. Use speculum and no lubricant | Curettings or aspiration | Twenty four hours at room temperature | |
| Intrauterine device | Sterile container | Surgical | Entire device plus secretion | Immediately at room temperature | |
| Lymph nodes (inguinal) | Sterile container | Skin decontamination | Biopsy or needle aspirate | Immediately at room temperature | |
| Urethra | Transport swab with Stuart's or Amie's medium. | Wipe clean with sterile gauze or swab | Swab with urethral secretion | Twenty four hours at room temperature | |
| Vagina | Transport swab with Stuart's or Amie's medium. | Use of speculum without lubricant | Aspirate or swab. | Immediately at room temperature | |
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| Vulva, including labia | Transport swab with Stuart's or Amie's medium. | Do not use alcohol for mucous membranes. Sin prep for regular skin sites. | Swab | Twenty four hours at room temperature | |

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| Bartholin glands | Anaerobic transport system | Do not use alcohol for mucous membranes. Sin prep for regular skin sites. | aspirate (Bartholin gland abscess) | Twenty four hours at room temperature | |
| GENITAL TRACT-MALE | | | | | |
| Anal/Rectal GC/CT | Genprobe Aptima Combo 2 | | Gently insert the swab (provided with the kit) about 3 centimeters into anus. Gently swirl the swab in a circular motion for 15-30 seconds | Twenty four hours at room temperature | Molecular GC/CT testing on the GenProbe |
| Lymph nodes | Sterile container | Skin decontamination | Biopsy or needle aspirate | Immediately at room temperature | |
| Penile lesion | Transport swab with Stuart's or Amie's medium. | Skin decontamination | Swab | Immediately at room temperature | |
| Prostatic fluid | Sterile container | | Secretions | | |
| Urethra GC/CT | sterile polyester swab in M4RT media | | Secretions | Refrigerate | Specimens submitted for GC/CT PCR testing in M4 medium will not be aliquoted or sent for additional testing until molecular testing complete. Store refrigerated for up to 7 days. |
| Urethra | Transport swab with Stuart's or Amie's medium. | Wipe clean with sterile gauze or swab | Swab with urethral secretion | Twenty four hours at room temperature | |
| Urine GC/CT and Trichomonas | GenProbe Aptima urine specimen collection | | Collect first morning urine. | Twenty four hours at room temperature | Molecular GC/CT testing on the GenProbe |
| INTESTINAL (STOOL) | | | | | |
| Duodenal contents | Sterile container | Through tube | Several ml | Immediately at room temperature | |
| Rectal Swab | Place swab in Cary blair transport media/ raw stool for antigen testing | | swab | Refrigerate | |
| Stool C diff | Clean leak-proof container. Raw stool | | At least 1 gm | Refrigerate | C diff PCR testing submit raw stool. Raw stool for atigen testing such as Crypto/Giardia |

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|--------------------------------|---|--|---|------------------|---|
| Stool Ova and Parasites | Para-pak Eco Fix | Collect 3 specimens every other day at a minimum for outpatients: inpatients should have 3 specimens collected everyday. | Up to fill line | Room Temperature | Para-Pak Eco Fix for O&P. Raw stool for atigen testing such as Crypto/Giardia. |
| Stool culture | Clean leak-proof container; transfer feces to enteric transport medium (Cary Blair medium) if transport will exceed 1 hr. | | At least 1 gm, 3 consecutive specimens. | Refrigerate | If stool will be delay for processing, submit raw stool in Cary Blair for bacteria. Raw stool for atigen testing such as Crypto/Giardia |

RESPIRATORY SITES

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|---|---|---|--|---|---|
| Bronchoscopy | Sterile scew-cap container | | Brushings, transbronchial biopsies, bronchial secretions | RT 2h; >2h refrigerate twenty four hours. | |
| Dental abscess, root abscess | Anaerobic transport system or E-swab | Rinse mouth; prep with dry sterile gauze. | Exudate | Immediately at room temperature | |
| Expectorated sputum | Sterile scew-cap container | May require ultrasonic nebulization, hydration, physiotherapy or postural drainage. | | RT 2h; >2h refrigerate twenty four hours. | |
| Mycobacterium Tuberculosis Sputum, BAL,BW | Sterile container | | | RT 2h; >2h refrigerate twenty four hours. | |
| Nasopharynx, | Thin wire or flexible swab moisted with Stuart's and Amie's | | | Twenty four hours at room temperature | Specimens submitted PCR testing MRSA Screen and Nasal |
| Oral cavity – mucosal surface of gums or teeth | Transport swab with Stuart's or Amie's medium. | Rinse mouth | Scraping swab | Immediately at room temperature | |
| Throat/Pharynx. Epiglottis, Nasopharynx | Transport swab with Stuart's or Amie's medium. | | | Twenty four hours at room temperature | |
| Trachael aspirate | Sterile scew-cap container | | Sputum | Immediately at room temperature | |

SKIN

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|--|--|--|------------------------------------|--|--|
| Deep suppurative lesion, closed abscess | Syringe and/or anaerobic transport system, or E-swab | Clean and decontaminate | Pus, Greater than 1 ml if possible | Transport within 24 hours/room temperature | |
| Fistula, sinus tract | Syringe or Transport swab with Stuart's or Amie's medium. | Clean and decontaminate | Pus, Greater than 1 ml if possible | Immediately at room temperature | |
| Rash | Syringe or Transport swab with Stuart's or Amie's medium. | Clean surface with 70% alcohol | Pus, fluid | Immediately at room temperature | |
| Superficial wound | Aspirate or Transport swab with Stuart's or Amie's medium. | Clean wound surface with 70% alcohol; Swab along leading edge of wound | Pus, biopsy, | Transport within 24 hours/room temperature | |

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| Tissue, surgical, or biopsy | Sterile container | Surgical | 5-10 mm ³ or aspirate | Twenty four hours at room temperature | |
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TISSUES

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|----------------|---|---------|------------------|---|--|
| Tissues | Anaerobic transport system, sterile cup | Surgery | 1 cm if possible | Do not add fluid. | |
| | | | | Larger specimens tolerate short exposure to air | |

URINES

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|----------------------------|-------------------|------------------------------------|---|---------------------------------|--|
| Clean, voided | Sterile container | Follow patient instructions | At least 1 ml | Within 24 hours at 4°C | |
| Straight catheter | Sterile container | Clean urethral area | Allow 15 mls to pass then collect remainder | Within 24 hours at 4°C | |
| Indwelling catheter | Sterile container | Disinfect catheter collection port | Aspirate 5-10 ml of urine. | Within 24 hours at 4°C | |
| Suprapubic aspirate | Sterile container | Disinfect skin | Needle aspiration | Immediately at room temperature | |

SUPPLY IMAGES

Cary Blair use for Bacteria stool cultures



Para-Pak Ecofix use for O&P



E-Swab used for aerobic, anaerobe and fastidious organisms
Transport swab with Amies media



Remel BactiSwab NPG used for FLU testing and NP cultures
Transport swab with Modified Stuart's media



Remel BactiSwabs for Rapid Strep
screen and throats cultures



**Copan for PCR MRSA and Nasal Complete
Transport swab with Stuart's media**



**BBL cultureswab for Group B streps cultures and aerobic wound cultures
transport swab with Stuart's media**



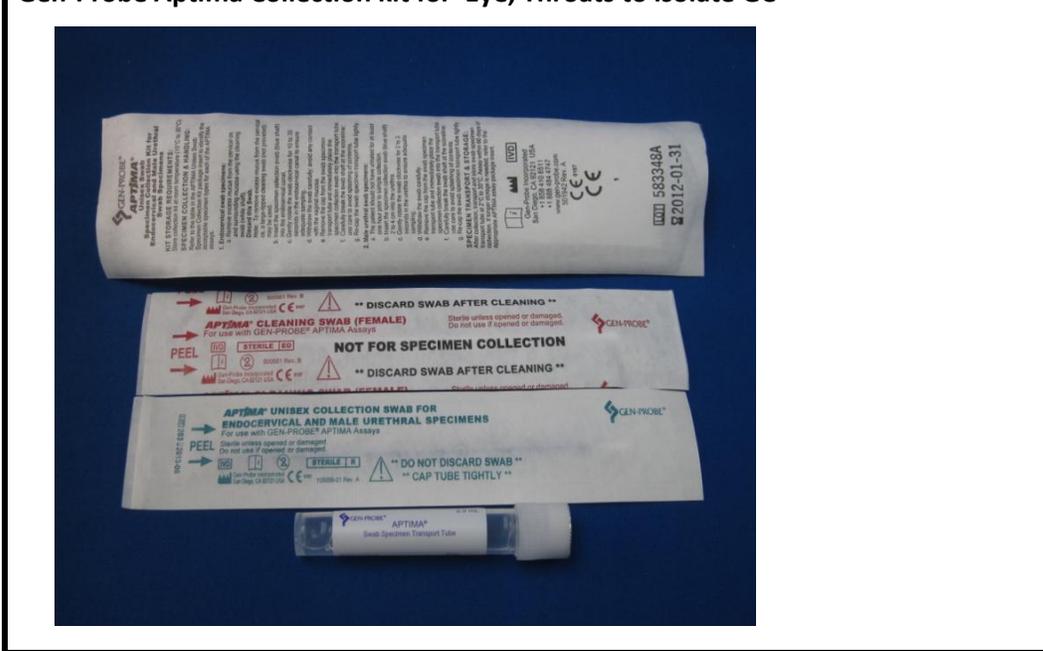
M4RT used for PCR GC/CT on endocervical and Male Urethral



Affirm VPIII collection system use for Bact Vag DNA



Gen-Probe Aptima Collection kit for Eye, Throats to isolate GC



Aptima urine collection for Tichamonas and GC/CT



Urine, Culture and Sensitivity



BD Vacutainer® Plus C&S Preservative Tube 4.0 mL

- Tube Dimensions:
- Plus Plastic Tube
- Size: 13 x 75 mm
- Conventional Stopper

4.0 mL, Boric Acid, Sodium Formate and Sodium Borate Preservative
Ref# 364951

← Fill Line

The image shows a BD Vacutainer Plus C&S Preservative Tube, which is a 4.0 mL plastic tube with a white stopper. A blue arrow points to the 'Fill Line' on the tube. The tube contains a yellowish liquid. The text on the tube includes 'BD Vacutainer Plus C&S Preservative Tube 4.0 mL' and '4.0 mL, Boric Acid, Sodium Formate and Sodium Borate Preservative Ref# 364951'. The tube is shown against a white background.

Sterile cup for Urine cultures



Collection system Images

Cary Blair use for **Bacteria stool cultures**

Para-Pak Ecofix use for **COMPLETE O&P**



E-Swab used for aerobic, anaerobe and fastidious organisms
Transport swab with Amies media

Copan for PCR MRSA and Nasal Complete
Transport swab with Stuart's media



Remel BactiSwab NPG used for FLU testing and NP cultures
Transport swab with Modified Stuart's media



Remel BactiSwabs for Rapid Strep screen and throats cultures
and aerobic wounds cultures; use dual swabs
Containing Stuart's or Amie's media.



BBL cultureswab for Group B streps cultures and aerobic wound cultures transport swab with Stuart's media



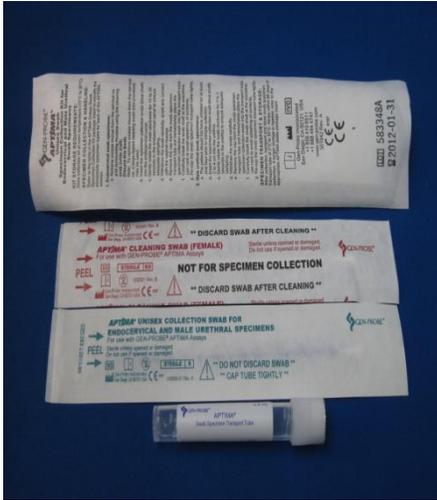
Affirm VPIII collection system use for Bact Vag DNA



M4RT used for PCR GC/CT



Gen-Probe Aptima Collection kit used for Eye, Throats for GC ID **NOT** for endocervical or male urethral :
Use the M4RT collection system for the endocervical and urethral specimens



Sterile cup for urine cultures



Plus for culture and Sensitivity. *** Important Note: Fill urine to tl

BD Vacutainer® Plus C&S Preservative Tube 4.0 mL

Tube Dimensions:

- Plus Plastic Tube
- Size: 13 x 75 mm
- Conventional Stopper

4.0 mL, Boric Acid, Sodium Formate and Sodium Borate Preservative
Ref# 364951

Fill Line for urine

A photograph of a BD Vacutainer Plus C&S Preservative Tube. The tube is white with a grey stopper and a yellow arrow pointing to a horizontal line on the tube. The text on the tube includes "BD Vacutainer Plus C&S Preservative Tube 4.0 mL" and "Ref# 364951".

specimens