

*CENTEGRA CLINICAL LABORATORIES
McHenry/Woodstock, Illinois*

ANAEROBIC CULTURE

SPECIMENS UNACCEPTABLE FOR ANAEROBIC CULTURE:

Materials from autopsy
Throat or nasopharyngeal swabs
Gingival swabs
Sputum and bronchial secretions
Vaginal and cervical swabs, prostatic secretions
Stool or rectal specimens
Urine, unless collected by suprapubic aspirate
Gastric contents
Surface material from decubitus ulcers, wounds, and sinus tracts
Mouth
Nose

These anatomic sites harbor anaerobic bacteria normally. Anaerobic culture of these specimens can be expected to yield numerous isolates of unknown clinical significance which may lead to results that are misleading to the clinician. When one of these specimens is received for anaerobic culture, the nurse or physician will be notified that this request will not be processed.

SPECIMEN:

1. The best specimen for anaerobic culture is obtained by using needle and syringe.
2. Tissue samples and biopsy samples
3. When a swab must be used to collect a specimen, use an acceptable anaerobe swab system. Special care must be taken to sample the active site of infection when a swab is used.

SUPPLIES:

Sterile syringe and needle, alcohol swabs
Appropriate sterile instruments for obtaining tissue specimens
Anaerobic Transport System

SPECIMEN COLLECTION

1. **ABSCCESS**
Aspirate material with sterile syringe and needle after the surface of intact tissue is disinfected with a povidone-iodine wash that remains on the surface for at least 1 minute. Surrounding areas may be inhabited or contaminated by saprophytic anaerobes.
2. **SINUS TRACT OR DEEP-WOUND DRAINAGE**
Aspirate material with a small flexible plastic catheter and syringe after proper disinfection of the skin surface, or collect curettings of material from deep within the tract or wound.

CENTEGRA CLINICAL LABORATORIES
McHenry/Woodstock, Illinois

3. **DECUBITI AND OTHER SURFACE ULCERS**
Results on specimens from decubiti and other surface ulcers can be very misleading unless special precautions are utilized. Analysis should be performed only on specimens from punch biopsy, on aspirated material obtained by needle and syringe after thorough and proper disinfection of the surface area, or on small curettings of material from deep tissue at the wound margin. Swabs from decubiti and other surface ulcers are never appropriate for anaerobic culture.
4. **PULMONARY**
Collect lung tissue, transtracheal aspirate, or percutaneous aspirate via double-lumen catheter. The use of shielded catheters to obtain specimens from pulmonary sources is essential to obtain proper specimens; otherwise the laboratory will be working up and identifying normal respiratory microbiota and providing useless information to the physician.
5. **FEMALE GENITAL TRACT**
Specimens collected by laparoscopy, culdocentesis, or surgery are appropriate for anaerobic culture.
Culture intrauterine devices anaerobically for *Actinomyces* species or *Eubacterium nodatum*.
6. **URINARY**
Obtain material via suprapubic bladder tap.
7. **OTHER SITUATIONS**
In some cases, when aspiration or biopsy is not feasible, an anaerobic swab may be accepted for anaerobic culture. Anaerobic swabs are the least desirable specimens for a number of reasons, including small volume of specimen, greater chance of contamination with normal microbiota, excessive dryness, bacterial adherence to cotton fibers, and poor Gram stain quality. An aspirate or biopsy sample or even a vary small sliver of tissue may often be a better specimen than a swab for anaerobic culture.

SPECIMEN TRANSPORT

1. Transport promptly to the laboratory.
2. Avoid extremes of heat or cold. If delays are unavoidable, hold specimen at room temperature until processing.
3. Do not transport material for culture in the needle and syringe. Needle transport is very unsafe because there is always the risk of a needle stick injury, and syringe transport poses a risk because the specimen may be expelled during transport. Transfer aspirated material to an anaerobic transport tube. Large volumes of purulent material may be transported in a sterile screw-cap tube.
4. Place tissue samples, biopsy samples, or curettings into a sterile screw-cap tube.