Eye, Ear, Nose, Throat (ENT) Specimens

**Throat Cultures**
Throat cultures are submitted primarily for the detection of Group A *Streptococcus*. Note any other suspected pathogens on the request form. Do not obtain a throat culture if the epiglottis is inflamed. Sampling may cause serious respiratory obstruction. Use a culturette swab to collect a throat culture. When obtaining the specimen, depress the tongue with a tongue blade and swab the tonsillar pillars and behind the uvula including any inflamed or purulent sites. Avoid touching the tongue, cheeks or teeth. Immediately place the swab back into the culturette sleeve and crush the ampule. **Throat swabs may be used for influenza detection by PCR in conjunction with an NP swab to enhance the sensitivity of testing.** As a stand alone specimen the sensitivity of a throat swab is suboptimal and will be rejected by the laboratory. Place swab in a 2nd viral transport media and break or cut the shaft below the handle.

**Nasopharyngeal Swabs**
Nasopharyngeal swabs are submitted primarily to detect *B. pertussis* and respiratory viruses. Do not send NP swabs or washings for culture of other bacteria. Prior to obtaining the specimen, ask the patient to blow his/her nose to clear the nasal passages. Gently pass the flexible wire Dacron tipped swab through the most patent nostril into the nasopharynx, keeping the swab near the septum and the floor of the nose. Rotate the swab for 5 seconds and withdraw. For Bordetella PCR immediately place the swab back into the culturette sleeve. For respiratory viruses order appropriate PCR tests, immediately place swab on viral transport. Transport to lab on wet ice as quickly as possible.

**Collection of Nasopharyngeal (NP) Swabs**
1. NP swabs and viral transport media are available from the Microbiology Laboratory.
2. Insert a flexible NP swab through the nose into the posterior nasopharynx.
3. Leave in place for a few seconds.
4. Slowly remove swab while slightly rotating over the surface of nasopharynx.
5. Repeat with second nostril by inserting same swab.
6. For Bordetella PCR, place the swab back into the culturette sleeve and transport to laboratory.
7. For viral PCR testing, place swab in viral transport media and break or cut the shaft below the handle. Transport on wet ice.

**Nasopharyngeal Washings**
These washings are generally performed on infants and young children to detect respiratory viruses such as RSV. Sterile phosphate buffered saline is available from the laboratory.
1. With the patient's head hyperextended instill 3 to 5 ml of sterile saline into each nostril.
2. Aspirate the fluid by inserting a rubber bulb syringe into each nostril.
3. Place the wash in a sterile container and transport on wet ice.

**Sinus Aspirates**
This technique may be carried out in an operating room setting. Using a syringe aspiration technique, the physician or otolaryngologist obtains fluid from one of the sinuses. Using appropriate transport devices (see Table 2), send the contents of the syringe for aerobic and anaerobic culture as needed.
Nasal Swabs
Nasal swabs are submitted for *S. aureus*, culture or MRSA and MRSA/MSSA PCR. Insert the Dacron swab about one inch into the nose until resistance is met at the level of the turbinates and rotate gently along the wall of the nare. Immediately place the swab into the culturette sleeve and crush the ampule.

Inner Ear Culture
Clean excess debris from the ear with normal saline solution and gauze. Collect lympanocentesis fluid via syringe or use a swab to collect inner ear drainage. Insert the culturette swab into the ear canal and rotate. Immediately place the swab back into the culturette sleeve and crush the ampule.

Conjunctival Swab
Contact the laboratory to obtain culture media. Obtain specimens for viral and Chlamydia cultures before any topical anesthetics are instilled. Gently clean excess debris from the outside of the eye with a gauze pad moistened with sterile normal saline solution. Retract the lower eyelid and gently rub a sterile swab over the conjunctiva. Sample each eye with separate swabs. Inoculate a blood agar plate and chocolate agar plate. Use a separate swab to make a smear for examination. If sending the swab to the laboratory, immediately place the swab into the culturette sleeve and crush the ampule.

Conjunctival Scrapings
Instill one or two drops of topical anesthetic. Scrape the lower tarsal conjunctiva with a sterile Kimura spatula.
- Cultures - Inoculate a blood agar plate, a chocolate agar plate and a thioglycollate broth or cooked meat broth directly. Media is available from the laboratory. Prepare smears by applying the scraping in a circular manner to a clean glass slide or by compressing material between two glass slides and pulling the slides apart. If media is not directly inoculated, place scrapings into a sterile container and send to the laboratory as soon as possible for processing.

Stains for Fungi and Acanthamoeba may not be performed on slides prepared bedside. Submit scrapings or fluid as applicable.

Corneal Scrapings
Obtain conjunctival samples prior to corneal scrapings. Sometimes, conjunctival cultures are helpful in assessing the possibility of contamination of corneal cultures. Obtain samples with a sterile Kimura spatula. While scraping, keep the eyelid open, be careful not to touch the lashes.
- Cultures - Inoculate each scraping directly to the following media: blood agar plate, chocolate agar plate, and thioglycollate broth. Multiple scrapings are recommended to increase the chances of organism recovery. Prepare smears by applying the scrapings in a gentle, circular motion over a clean glass slide or by compressing material between two glass slides and pulling apart.
- Cytology examination – Send conjunctival/corneal samples for Tzanck Preparation if Herpes is suspected (or send cultures to the Microbiology laboratory). See Skin, Bone and Wound Specimen Collection section of this directory for Tzanck Prep procedure or Viral Cultures at the beginning of this section.
- Pathology examination – Place a portion of tissue into 10% neutral buffered formalin and place in biohazard bag along with accompanying requisitions containing pertinent patient information for transport to the laboratory. Specimens in formalin may not be cultured.
Intraocular Fluids/Aspirates/Vitreous Fluid

Use a needle aspiration technique to collect these fluids.

- Cultures - Inoculate blood agar plate, chocolate agar plate, and thioglycollate broth and/or transport to the laboratory immediately in an anaerobic transport or capped syringe with air bubbles expelled.
- Cytologic examination - If slides are prepared at point of service, place a small amount of fluid on the slide and spread it out with the syringe needle or by pulling two slides apart. Fix slides immediately using 95% alcohol or spray fixative and transport specimen(s) immediately to the laboratory.