GENITO-URINARY TRACT CULTURES

I. GENERAL CONSIDERATIONS:

Specimens from the genito-urinary tract are usually collected to rule out urethritis, vaginitis, or cervicitis. The microbial agents most implicated include *Neisseria gonorrhoeae*, *Chlamydia trachomatis, Candida albicans,* and *Trichomonas vaginalis.*

The effectiveness of laboratory diagnosis depends upon special attention to specimen collection to achieve maximum sensitivity. This is particularly true for gonorrhea because of the sensitivity of the organism to drying or antiseptics and because there may be very few gonococci at an infected site. Thus, disinfectants and lubricants should not be used for preparing the patient before culture collection.

Specimens must be transferred as rapidly as possible to suitable culture or transport medium to avoid loss of viability. Gonococcal infections often occur in, or adjacent to, sites with an extensive normal colonizing microbial flora. It is important that specimens be obtained as free as possible from such potential colonizing flora and under direct visualization.

II. SPECIMEN COLLECTION:

A. *Neisseria gonorrhoeae*:

(1) Specimens for *Neisseria gonorrhoeae* should be collected from mucosal or epithelial surfaces (e.g., urethra, uterine cervix, pharynx, conjunctiva) using the charcoal swabs, either the larger swab or mini-tipped swabs, depending on the site being cultured. Swab specimens should be replaced in the original container, being sure that the swab is fully inserted INTO the charcoal transport medium. **If a delay in transport to Laboratory Services is anticipated, please contact Laboratory Services at (800) 934-6575 for availability of culture media which should be used to perform direct plating at the "bedside".**

(2) Duplicate swabs are recommended when direct smears are required, one for the smear and one for the culture. Direct smears are usually not useful from female patients.

(3) The following specific instructions are given for various body sites:

(a) Urethral: Urethral specimens should not be collected until at least 1 hour after urinating. In males, they may be collected directly from urethral discharge or from discharge induced by "milking" the urethra. If no discharge is obtained, a mini-tipped charcoal swab is moistened with sterile water and inserted into the distal urethra for approximately 2 cm and gently rotated. For females, the external urethral area is wiped dry with a sterile swab, and discharge is stimulated by pressure and massaging of the urethra against the pubic symphysis through the vagina. If no discharge is obtained, the specimen is collected from within the urethra as described for the male. Special care should be taken to avoid contamination from external areas around the urethral meatus.

(b) **Endocervical:** Endocervical specimens are obtained under direct vision with a speculum. The cervix is wiped clean with cotton swabs to remove vaginal secretions. Gentle compression of the cervix between the blades of the speculum may then produce endo-cervical exudate, which is optimal for examination by culture and direct smear. The discharge is collected from the endocervix by using the large charcoal swab in a ringing motion to help force exudate from the endocervical glands.

(c) **Anorectal:** Anorectal specimens should be obtained from the crypts just inside the anal ring using the larger charcoal swab. Move the swab from side to side and allow 10-30 seconds for absorption of organism before withdrawing. Anorectal cultures are often collected along with endo-cervical specimens as a "test-of-cure" after treatment.

(d) **Conjunctival**: Conjunctival specimens are taken from conjunctival exudate using the mini-tipped charcoal swab.

(e) **Pharyngeal**: Pharyngeal specimens are taken from the tonsillar regions and posterior pharynx using the larger charcoal swab.

B. *Chlamydia trachomatis* culture

Specimens for *Chlamydia trachomatis* may be collected from the same sites as for GC. See details on *Chlamydia* specimen collection methods in the *Chlamydia trachomatis* collection procedure.

C. Detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae* by nucleic acid amplification:

According to the Center of Disease Control and Prevention nucleic acid amplification tests (NAATs) are the recommended test methods for detection of urogenital infections (MMWR Vol. 63 No.2, March 2014).

(1) **For urethral and endocervical** samples submit specimens in Aptima Unisex Swab specimen collection kit. Large white swab is for preparatory cleaning of the endocervix and is unacceptable for testing.

(2) **For vaginal samples** submit swabs in Aptima Vaginal Swab specimen collection kit.

(3) **For conjunctival, anorectal, throat and nasopharyngeal specimens** submit swabs collected in the M4 collection kit (swab and M4 media).

D. *Candida, Trichomonas*

Specimens for *Candida* and *Trichomonas* in cases of suspected vulvo-vaginitis should be collected by swab. Detection of *Trichomonas* is usually performed as a wet prep point-of-care test because the motility of the organism is short-lived. Discharge and exudate material should be collected from the vagina and vaginal vault on multiple swabs (at least 2) to supply ample material for direct exam and antigen detection or nucleic acid amplification testing (use Aptima unisex swab specimen collection kit for amplified testing). The routine general Copan dual culture swab system swabs are satisfactory for *Candida* culture. Be sure the swab tips contact the transport fluid filled sponge at the bottom of the tube.