Clinical Laboratory Department POLICY AND PROCEDURE

POLICY NUMBER: 1179
VERSION: 3

SUBJECT: Genital Culture

Principle:

In the presence of clinical indications of infection, bacterial culture of the suspected infected site may be of use in defining the causative agent of infection and aid in the eradication thereof. Recovery of bacterial growth on plated media allows for the isolation and identification of potential pathogens and the testing against antimicrobial drugs for possible treatment.

Specimen:

1. Specimens are to be collected according to laboratory policy, properly labeled and delivered to the microbiology laboratory in a timely manner. Specimens should be plated as soon as possible.

2. Specimens from non-sterile sites to be handled as routine genital cultures:
    a. Cervical
    b. Vaginal
    c. Urethral or penile
3. Specimens requiring special handling:
    a. Prenatal specimens to Rule Out Beta Strep group B – See separate procedure for Rule Out Beta Strep group B cultures.

Primary Inoculation of Media:

1. Supplies:
    a. Inoculating loop
    b. Microscope slide
    c. BAP
    d. MAC
    e. Martin Lewis (or equivalent plated media)

Procedure:

a. Routine genital cultures: Inoculate one (1) each BAP, MAC and Martin Lewis Plate with specimen in the first quadrant. Alternatively it is acceptable to inoculate Martin Lewis using a Z-Streak pattern. (If a Martin Lewis plate is submitted separately for a R/O GC culture it is not necessary to set up a duplicate Martin Lewis plate with the culture). Streak the plates for isolation using an inoculating loop and 4–quadrant pattern.
b. Make a direct smear for Gram stain. Air dry. Fix the slide with methanol, let dry, and then Gram stain.
c. Incubate BAP, Martin Lewis plates under 5-10% CO_2 conditions at 34-36°C. Incubate MAC at 34-36°C in the non-CO_2 incubator.

1. Direct Smear

a. The Gram stain should be examined and results reported expeditiously. Quantitate cells and organisms seen. Describe organism as appropriate. Typical morphologies should be noted as these may facilitate treatment of the patient, as no further results will be released for at least 24 hours. Gram stains shall include a statement as to the presence or absence of clue cells.

2. No Growth Culture
   a. Examine plates after 24 hours of incubation and again after 48 hours of incubation.
   b. If growth is detected, proceed with subculturing and identification of organisms as outlined in preliminary work up.

3. Cultures with Growth
   a. Examine all plates after overnight incubation. Record the number and kinds of colonies present. Identify as appropriate.
   b. Re-examine the plates in 48 hours.

4. Normal Flora
   a. Normal genital flora is defined as including any combination of the following recovered from a non-sterile site:
      1. Coagulase negative staphylococci
      2. Diphtheroids and other aerobic Gram positive bacilli (other than *Listeria monocytogenes*).
      3. Lactobacillus (females)
      4. Anaerobes
      5. Non-hemolytic strep, not group D.

   b. In addition, the following may be encountered in small numbers in adult females. These do not need to be worked up unless they are the **predominant** organism.
      1. Enteric Gram negative bacilli
      2. Group D Strep and Enterococcus
      3. Yeast
      4. S. aureus

Reporting:

Non-sterile Sites

a. Cultures revealing growth of only normal flora shall be reported as “Normal Genital Flora”, including quantitation along with reporting the absence of N. gonorrhoeae using the Microbiology Coded Response Sheet.
b. If, in addition to usual flora, if a pathogen is to be reported, report as follows:
   1. List pathogens in order of predominance.
   2. Report any usual genital flora seen, with quantitation.
   3. Report presence or absence of *N. gonorrhoeae*.

References:

Bailey and Scott's Diagnostic Microbiology, 9th Edition, Baron, Ellen Jo; Peterson, Lance R.; Finegold, Sydney M.; Mosby. St. Louis, Missouri, 1994.

Substratum: The Microbiology Laboratory; Bacterial Reporting & Resistance. Baron, Ellen Jo; Hindler, Janet F., Sheffield Dawson. 1998.

Approved By: Brian Yee (PHYS SPEC PATHOLOGY)		
Date: 04/09/2017	**Original Date:** 06/08/1992	
Reviewed: 04/09/2017	**Next Review Date:** 04/09/2018	
Revised:	11/9/96, 1/22/01, 3/1/02 rlw, corrected sterile site reporting; 4/15/04 dnb, HDH to HDHS; 12/15/05 jh revised normal flora, b, as work up if predominant, removed report language no longer relevant, update genital flora reporting. 7/4/08 lg, deleted media no longer set up, removed references to R/O BSB, see separate procedure, added *Substratum* reference, added reporting of no/yes GC to all gen cultures, 5/18/10 jh-deleted sources no longer set up here. 5/20/13 jh deleted media/procedure no longer in use, 4/7/17jh changed approver to Dr. Yee	
Written By: Jill Hartenstein (CLINICAL LABORATORY SCIENTIST II)		
Distribution:		