PROCEDURE

Title: Eye Culture (Cornea, Conjunctiva, and Eyelids)

Procedure #: 2015MICROBIOLOBY01

Institution: Highlands Regional Medical Center

Address: 3600 Highlands Avenue, Sebring Florida 33870

Prepared by: Anita Smith Date: 5/26/2015

Title: Laboratory Administrative Director

Accepted by: _____ Date: 5-27-15

Title: Laboratory Medical Director

Date Patient Testing Implemented: _____

Review of procedure every two years

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Reviewed by: _____ Date: _____

Discontinued testing date: _____

Policy Title: Eye Culture (Cornea, Conjuntiva, & Eyelids) Policy

Audience: Laboratory Staff

References and Citations: Forbes, Betty A., et.al, Bailey and Scott's Diagnostic Microbiology, 12th Edition, Mosby, Inc., 2002.

Purpose:

To provide guidelines for culturing and identifying organisms from eye cultures.

Policy:

Specimen Collection

Specimens are generally collected by nursing personnel or physicians and should be placed in the specimen collection transport media (Culturette). Dry swabs are never acceptable. For Keratitis, the physician will submit corneal scrapings on the spatula.

Procedure:

1. Perform a Gram Stain along with the culture.
2. Plate the specimen onto a CAP, BAP, and Mac plate and incubate at 35° C. Also place the swab into Thio. If Neisseria gonorrhoeae is suspected, also plate on a M.T.M. Incubate all plates for 18-24 hours under $C0^2$.

Note: Always streak to obtain isolation. On the BAP plate make a deep stab into the area of heaviest inoculation.

3. Examine for growth after incubation. If no growth, reincubate under $C0_2$ for another 18-24 hours. If growth, identify pathogens or potential pathogens and do sensitivity testing as indicated.

Pathogens of the Eye

Staphylococcus aureus
Haemophilus species
Streptococcus pneumonia
Neisseria gonorrhoeae and meningitides
Alpha-and Beta-hemolytic streptococcus
Pseudomonas aeruginosa
Corynebacterium diptheriae
Group A Streptococcus
Bacillus species
Saprophytic fungi
Mycobacterium chelonei
Gram-negative rods

Report pathogens or potential pathogens giving semiquantitative estimates of growth (light, moderate or heavy) and reporting sensitivities as indicated.

Note: All these organisms, with the exception of the C.diptheriae, require sensitivity testing.

Normal Flora of the Eye

Corynebacterium sp. (diphtheroid)
Coagulase negative staphylococci
Neisseria sp.
Streptococci (nonhemolytic)
Propionibacterium

Report the following normal flora with the identified organism along with the comment, "this organisim is usually considered a non-pathogen in the eye." Physicians may request further sensitivity testing on normal flora on a case by case basis. A note must be included in the result that states, "Please notify Highlands Regional Medical Center's Microbiology Department if sensitivity is requested for this specimen."

All plates should be held for 48 hours for growth. Thioglycollate broths should be held for 7 days for growth.

Note: Because of potential severe and damaging corneal infection, growth of pathogens or potential pathogens should be reported promptly to the nursing station and/or attending physician.