Department of Microbiology
Eye Culture Procedure

I. Eye specimens include: conjunctiva, sclera and specimens labeled "eye"

II.

POTENTIAL PATHOGENS	MIXED FLORA
Bacillus sp. (notify Rounds and call physician)	Alpha-hemolytic strep
Beta-hemolytic strep	*Corynebacterium* sp.
Gram negative rods	Non-hemolytic strep
Hemophilus sp.	*Staph sp.* not *aureus*
Moraxella spp.	*Enterococcus*
Neisseria gonorrhoeae	
Neisseria meningitidis	
Pseudomonas sp. (notify Rounds and call physician)	
Staph aureus	
Strep pneumoniae	

III. WORKUP AND REPORTING

A. After 24 h incubation in CO_2

1. Note the quality of the specimen ("Q" score), and the bacteria seen on the Gram stain report.
2. Observe BAP, chocolate, and MAC plates.
   a. If sterile:
      i. Re-incubate the plates in CO_2.
      ii. Report: **No Growth to Date**.
   b. If the plates have growth, determine the number of potential pathogens:
      i. If the number of potential pathogens is $\leq$ Q score:
         a) Speciate and report the presumptive isolate(s) according to the identification procedures, and record in the computer.
         b) Perform AST on organisms if appropriate.
         c) Re-incubate the plates in CO_2.
      ii. If the potential pathogens are >Q score, the potential pathogens are correlated with the direct smear.
         a) If the correlating potential pathogens do not exceed the score, correlating potential pathogens are worked up (see III.A.2.b.i.a-c), and a gross report is given for non-correlating pathogens: **Mixed flora including (list non-correlating potential pathogens)**.
            1) Append the following comment: **This is a mixed culture of potential pathogens. Correlation of the culture results with the gram stained direct smear indicates one or more isolate is more significant than others. The organisms seen only in culture may not relate to infection and may represent colonization or contamination. [MXSIG]**

2) Re-incubate the plates. Read again at 48 h, and hold the plates for 7 days in the cupboard.

b) If the potential pathogens that correlate with the direct smear exceed the Q score, a "gross" report is given.
   1) Report the isolates generically: **Mixed flora including (list potential pathogens)**.
   2) Add the comment: **This is a mixed culture of potential pathogens. Correlation of culture results with the gram stained direct smear does not identify any isolate as more significant than another. Bacteria may not relate to infection and may represent colonization or contamination. [MXNSIG]**
   3) Re-incubate the plates. Read again at 48 h, and hold the plates for 7 days in the cupboard.

c) If no potential pathogens are isolated and cutaneous flora is present, report: **Mixed flora**.

d) If Q0 and potential pathogens are present, a “gross” report is given.
   1) Report the pathogens generically: **Mixed flora including (list potential pathogens)**.
   2) Add the comment: **This is a mixed culture suggesting the probability of contamination. Collection of another specimen is suggested, avoiding superficial sources of contamination. [SWCONT]**
   3) Hold the plates 7 days in the cupboard.

B. After 48 h incubation in CO_2
   1. See III.A.1.
   2. Observe plates
      a. If there is no growth at 48 h, report: **No Growth**.
      b. If the plates have growth, determine the number of potential pathogens. See III.A.2.b. above.
      c. If no potential pathogens are isolated and cutaneous flora is present, report: **Mixed flora**.

C. Bring all positive eye cultures up on Rounds.

D. Notify Rounds immediately if *Bacillus* or *Pseudomonas* species are isolated.

Document Control
Effective 02/17/2006
Medical Director Approval: Reviewed by Dr. Schappert 3/10/2010.
Microbiology Director Approval: Dr. Ann Robinson 02/27/2006
Microbiology Supervisor Reviews: Jerry Claridge 02/23/2006, 01/2007, 09/2007, 09/2008, 09/2009, 03/2010, 03/2011, 03/2013, Jason Ammons 05/2015
Revisions & Updates: