HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Microbiology)		
Document:	Internal Policy and Procedures		
Title:	Conjunctiva, Lid Swabs and Corneal Scrapings Culture		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

1.1 To establish system and set responsibilities for processing Eye / Conjunctiva and Lid Swabs culture.

2. DEFINITONS:

2.1 N/A

3. POLICY:

3.1 It is preferable that both eyes be swabbed, even if the infection is unilateral.
3.2 Swabs should be collected prior to the instillation of topical anaesthetics or antibiotics, and sent in Amie's transport medium.
3.3 If a delay in transport or processing is anticipated, the specimen should be kept at 4 °C. Occasionally, specimens collected by an ophthalmologist might be inoculated directly onto culture plates/ glass slides at the bedside.

4. PROCEDURE:

4.1 **Specimen Collection and Transport:**
- 4.1.1 It is preferable that both eyes be swabbed, even if the infection is unilateral.
- 4.1.2 Swabs should be collected prior to the instillation of topical anaesthetics or antibiotics, and sent in Amie's transport medium.
- 4.1.3 If a delay in transport or processing is anticipated, the specimen should be kept at 4 °C.
- 4.1.4 Occasionally, specimens collected by an ophthalmologist will be inoculated directly onto culture plates at the bedside.
  - 4.1.4.1 The following media is to be supplied to the physician for each eye: BA, CHOC, MAC, & SD (if fungal infection is expected).
  - 4.1.4.2 Conjunctival swab: the ophthalmologist will inoculate the plates in a short spiral line.
  - 4.1.4.3 If lid swabs are also collected, these will be inoculated onto the same culture plate next to the conjunctival inoculation. Lid swabs will be inoculated in the shape of an "L" or "R" indicating left or right respectively.
  - 4.1.4.4 For corneal scrapping culture, the physician usually prepares two or three slides and inoculates the appropriate media at the time of specimen collection. The plates will be inoculated in rows of "C"- shaped marks, with each row representing a separate sample.
  - 4.1.4.5 These plates should be kept in the incubator (35 °C) until processed.
- 4.1.5 Virus and chlamydia detection require special transport media. If acanthamoeba is requested, forward specimen to Parasitology section for processing.
- 4.1.6 All specimens received for acanthamoeba should be kept at room temperature until processed.

4.2 **Processing of Specimens:**
- 4.2.1 Direct Examination:

4.2.1.1 Gram stain: Quantitate the presence of pus cells and organisms.
NB: If previously inoculated plates are received and no specimen or swab received, then direct examination is not performed.

4.2.1.2 An extra smear is held in reserve for special stains (e.g. Giemsa stain if requested).

4.2.2 Culture:

4.2.2.1 If pre-inoculated culture plates are received, these should be incubated as listed below.

Media:	Incubation:
Blood Agar (BA),	O2, 35+2 °C x 48 hours
MacConkey Agar (MAC)	O2, 35+2 °C x 48 hours
Chocolate Agar (CHOC)	CO2, 35+2 °C x 48 hours
Sabouraud Agar (SD)	O2, 30°C x 3 weeks
For corneal scrapping, add: Fastidious Anaerobic Broth (THIO)*	O2, 35+2 °C x 5 days 02,

*If available

4.2.3 Interpretation of Cultures:

4.2.3.1 For conjunctival swab, examine the BA, CHOC and MAC plates after 24- and 48-hours incubation.

4.2.3.2 Any growth of S. aureus, H. influenzae, M. catarrhalis, N. gonorrhoea, Group A Strep, S. pneumoniae, Moraxella species, and P. aeruginosa is potentially significant.

4.2.3.3 For other organisms, a significant result is determined by the isolation of a moderate or heavy growth of a potential pathogen correlated with the predominant organism on the Gram stain.

4.2.3.4 Full identification is required for all significant organisms.

4.2.3.5 For corneal scrapping, Examine the culture plates daily.

4.2.3.6 If no growth on culture plates but growth in THIO, perform Gram stain and sub-culture THIO onto BA, and CHOC and incubate for 48 hours.

4.2.4 Susceptibility Testing:

4.2.4.1 Refer to Susceptibility Testing Manual.

4.3 **Reporting Results:**

4.3.1 Gram stain:

4.3.1.1 Report with quantitation the presence of pus cells and organisms.

4.3.2 Culture:

4.3.2.1 Negative Report: "Commensal flora" or "No growth".

4.3.2.2 Positive Report: Report all significant isolates with appropriate sensitivities. If commensal flora is also present, report with quantitation.

5. MATERIAL AND EQUIPMENT:

5.1 Culture media
5.2 Microscan panels/ Vitek 2 system ID & AST cards

6. RESPONSIBILITIES:

6.1 Assigned Technician for Microbiology
6.2 Clinical Pathology Specialist/ Consultant

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 Clinical Microbiology Procedures Handbook, American Society of Microbiology, Washington DC, 2005

8.2 P.R. Murray, E.J. Baron, M.A. Pfaller, R.H. Yolken. 2003. Manual of Clinical Microbiology, 8th ed. ASM Press, Washington, D.C.

8.3 H.D. Isenberg. 2003. Blood Cultures-General Detection and Interpretation, p.3.4.1.1-3.4.1.19 In Clinical Microbiology Procedures Handbook, 2nd ed. Vol.1 ASM Press, Washington, D.C.

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 06, 2025
Reviewed by:	Ms. Noora Melfi Alanizi	Laboratory & Blood Bank Director		January 08, 2025
Reviewed by:	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 12, 2025
Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 13, 2025
Approved by:	Mr. Fahad Hazam Alshammari	Hospital Director		January 20, 2025