



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Microbiology)		
Document:	Internal Policy and Procedure		
Title:	Potassium Hydroxide Test		
Applies To:	All Laboratory Staff		
Preparation Date:	January 06, 2025	Index No:	LB-IPP-142
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1. PURPOSE:

- 1.1 To establish system and responsibilities for processing KOH test for detection of fungal elements.

2. DEFINITONS:

- 2.1 KOH: Potassium Hydroxide.

3. POLICY:

- 3.1 Used commonly in suspected cases of dermatophytosis, i.e. fungal infection of skin, hair, or nails that contain keratin.
- 3.2 Also used for specimens such as sputum, pus, urine sediment, homogenate from biopsy tissue to clear cell debris.

4. PROCEDURE:

- 4.1 It is usually used depending on the specimen; occasionally 40% is also used.
- 4.2 **Preparation of the mount:**
- 4.2.1 Take a clean grease-free glass slide.
- 4.2.2 Place a large drop of KOH solution with a Pasteur pipette.
- 4.2.3 Transfer small quantity of the specimen with a loop or the tip of a scalpel into the KOH drop.
- 4.2.4 Put a clean cover slip on gently so that no air bubble is trapped.
- 4.2.5 Place the slide in a moist chamber, and keep at room temperature.
- 4.2.6 Skin scales usually take 20-30 minutes; pieces of nail may take several hours to clear.
- 4.2.7 Sometimes overnight contact with KOH is useful for getting a positive result.
- 4.2.8 Clearing can be hastened by gentle heating of the slide, but it is best avoided.
- 4.3 **Examination:**
- 4.3.1 Examine the clear specimen under low power (10X objective).
- 4.3.2 Scan the entire cover slip from end to end in a zigzag fashion.
- 4.4 **Modification:**
- 4.4.1 For more distinction, stains like methylene blue or Parker blue black fountain ink may be used along with KOH.
- 4.4.2 This will impart a coloured background and fungal elements, if present, will show as prominent refractile objects.
- 4.4.3 Reduce the light coming into the condenser.

5. MATERIAL AND EQUIPMENT:

- 5.1 Reagents: K OH 10-20%, Methylene blue
- 5.2 Glass slides, Pasteur pipette, plastic loops & cover slides
- 5.3 Light microscope

6. RESPONSIBILITIES:

- 6.1 The assigned technician/ technologist assigned for microbiology lab.
- 6.2 The C. pathology Specialist/ Consultant In-charge.



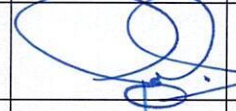


7. APPENDICES:

- 7.1 N/A

8. REFERENCES:

- 8.1 Procedure Manual, Toronto Medical laboratories / Mount Sinai Hospital department of microbiology
- 8.2 Bailey & Scott's Diagnostic Microbiology. Feingold & Baron; 12th. Ed. 2007, C.V. Mosby Co. p. 301.
- 8.3 Clinical Microbiology Procedures Handbook, American Society of Microbiology, Washington DC, 2005.
- 8.4 Larone, D. (2002). Medically Important Fungi, A guide to identification. 4th Edition. ASM Press. Washington DC, USA.

9. APPROVALS:

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