

DEPMEDS LABORATORY PROCEDURES
DEPARTMENT OF CLINICAL SUPPORT SERVICES
U.S. ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL
FORT SAM HOUSTON, TEXAS 78234-6137

MCCS-HCM STANDING OPERATING PROCEDURE 10 June 02

POTASSIUM HYDROXIDE WET MOUNT

1. PRINCIPLE:

Potassium hydroxide (or sodium hydroxide) is used for the examination of skin, nail, and scalp scrapings, and hair itself. The hydroxide solution acts as a clearing agent to eliminate debris and to make fungal elements, if present, more prominent. Gentle heating hastens the action.

2. SPECIMEN:

Specimens of choice are skin, hair, and nail scrapings.

3. REAGENTS AND MATERIALS:

- a. Potassium or Sodium hydroxide -- 10%. Prepare by dissolving 10 g KOH or NaOH in 100 ml of distilled or deionized water.
- b. Glass microscope slides.
- c. Microscope.

4. PROCEDURE:

- a. Place the clinical scrapings into one or two drops of 10% KOH or NaOH on a glass slide.
- b. Cover preparation with a thin coverslip.
- c. Gently heat the preparation over a flame for a few seconds. DO NOT BOIL! If heat is not used, allow the preparation to stand for 15-30 minutes, preferably longer, before reading.
- d. Examine preparation under low, then high magnification for mycelium and spore identification.

5. RESULTS:

- a. Fungal structures should appear as hyaline objects. Some may be slightly pigmented to dark. See ANNEX B for examples of common fungal structures.
- b. Report as:
 - (1) "Fungal Structures Present."
 - (2) "No Fungal Structures Observed."
 - (3) When possible get confirmation for positive slides.

6. REFERENCE:

- a. Technical Manual 8-227-8, Laboratory Procedures in Clinical Mycology, 1964.