

CHILDLAB

Guide to Laboratory Services

FUNGAL CULTURE

I. GENERAL CONSIDERATIONS:

Molds and yeast comprise the group of agents causing fungal (mycotic) infections. The majority of fungi isolated from clinical specimens are relatively common agents causing infection of human skin and mucosal surfaces including Candida albicans, other Candida species, and the dermatophytes. In the U.S., there are only a few species of fungi isolated which are always considered clinically significant because of their pathogenicity. They are: Blastomyces dermatitidis, Coccidioides immitis, Cryptococcus neoformans, Histoplasma capsulatum, and Sporothrix schenckii. Diagnosis of these infections is generally performed on hospitalized patients. Infections of the skin and mucosal surfaces may be diagnosed in ambulatory outpatients.

II. SPECIMEN COLLECTION:

- (1) Listed below are various superficial specimen types and how they should be collected and submitted for diagnosis.
- (2) Aspirates or scrapings are always preferred specimens for isolation of fungi. Swab collections should be used primarily for throats and vaginal specimens when Candida is suspected.
- (3) Specimens should always be labeled with the suspected agent and enclosed in a sealed screw-capped container or dual culture swab system swabs container.

A. Specimen Collection on Outpatients for Superficial Fungal Infection

(1) Cutaneous Lesions

Material aspirated from a closed lesion is preferred. If the lesion is open, the material should be collected from deep inside the lesion using the dual culture swab system swabs.

(2) Throat and Vaginal Specimens for Candida spp.:

These specimens are acceptable when Candida infections are suspected. The infected area should be swabbed with the dual culture swab system swabs. For oral specimens, this should be done vigorously, to remove portions of plaque adhering to the mucosal lining. Alternatively, a wooden tongue depressor blade may be used to scrape oral lesions. Place the wooden blade in a sterile screw-cap container and send to ChildLab.

(3) Hair for dermatophyte:

Use sterile forceps to pluck hair; both the hair shaft and its base are needed for culture. If hairs are broken off close to the scalp, scrapings of the area are acceptable. The hairs should be submitted to the Lab in a sterile screw-cap container.

(4) Skin for dermatophyte

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Cleanse the infected area with sterile water and gauze. Using a sterile scalpel, collect the epidermal scales from the edge of active lesions by scraping into a sterile screw-cap container.

(5) Nail for dermatophyte

Cleanse the infected area with sterile water and gauze. Scrapings should be taken using a sterile scalpel with the initial scrapings discarded. Be sure to submit material from under the nail plate. Collect in a sterile screw-cap container.