

Overview

Useful For

Detection of fungi in clinical specimens

Testing Algorithm

When this test is ordered, the reflex test may be performed at an additional charge.

See [Meningitis/Encephalitis Panel Algorithm](#) in Special Instructions.

Special Instructions

- [Meningitis/Encephalitis Panel Algorithm](#)

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
TISSR	Tissue Processing	No, (Bill Only)	No

Method Name

Calcofluor/KOH Stain

NY State Available

Yes

Specimen

Specimen Type

Varies

Shipping Instructions

Specimen should arrive within 24 hours of collection.

Necessary Information

Specimen source is required.

Specimen Required

Specimen Type: Body fluid

Container/Tube: Sterile container

Specimen Volume: Entire collection

Specimen Type: Bone marrow

Container/Tube: Sterile container

Specimen Volume: Entire collection

Specimen Type: Fresh tissue or stool

Supplies: Stool Collection Kit, Random (T635)

Container/Tube: Sterile container

Specimen Volume: Pea sized

Collection Instructions: Tissue should be placed in small amount of sterile saline or sterile water.

Specimen Type: Respiratory specimen

Container/Tube: Sterile container

Specimen Volume: Entire collection

Specimen Type: Urine

Container/Tube: Sterile container

Specimen Volume: 2 mL

Collection Instructions: Collect a random urine specimen.

Acceptable

Fresh tissue or body fluid is the preferred specimen type instead of a swab specimen.

Specimen Type: Swab

Sources: Dermal, ear, mouth, ocular, throat, or wound

Container/Tube: Culture transport swab (noncharcoal) Culturette

Specimen Volume: Swab

Collection Instructions:

1. Before collecting specimen, wipe away any excessive amount of secretion and discharge, if appropriate.
2. Obtain secretions or fluid from source with sterile swab.
3. If smear and culture are requested or both a bacterial culture and fungal culture are requested, collect a second swab to maximize test sensitivity.

Forms

If not ordering electronically, complete, print, and send a [Microbiology Test Request](#) (T244) with the specimen.

Reject Due To

- Blood or fixed tissue Rejec
- Specimen in viral transport (including but not limited to M4, M5, BD viral transport media, thioglycolate t
broth)
- Nasal swab
- Wood shaft or charcoal swab
- Catheter tips
- Prepared slide, glass slide, microscope slide

Specimen Minimum Volume

Bone Marrow or Body Fluid: 1 mL

Respiratory Specimen: 1.5 mL

Tissue: pea-sized piece

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	7 days	
	Ambient	7 days	

Clinical & Interpretive**Clinical Information**

Many fungi in the environment cause disease in severely compromised human hosts. Accordingly, the range of potential pathogenic fungi has increased as the number of immunosuppressed individuals (persons with AIDS, patients receiving chemotherapy or transplant rejection therapy, etc) has increased.

Few fungal diseases can be diagnosed clinically; most are diagnosed by isolating and identifying the infecting fungus in the clinical laboratory.

Reference Values

Negative

Interpretation

Positive slides are reported as one or more of the following: yeast or hyphae present, organism resembling *Blastomyces dermatitidis*, *Histoplasma capsulatum*, *Coccidioides immitis*, *Cryptococcus neoformans*, or *Malassezia furfur*.

Cautions

No significant cautionary statements.

Clinical Reference

Lockhart SR, Diekema DJ, Pfaller MA: The epidemiology of fungal infections. In: Anaissie EJ, McGinnis MR, Pfaller MA, eds. *Clinical Mycology*. 2nd ed. Elsevier; 2009:1-14

Performance**Method Description**

Calcofluor white, a fluorescent textile brightener, nonspecifically binds with chitin in the cell wall of fungi. Examination of stained specimens using fluorescent microscopy allows for the detection of fungi due to the fluorescence of calcofluor white present on the fungal cell wall. Potassium hydroxide is added to hasten clearing of viscous specimens, and Evans blue is added to prevent nonspecific fluorescence. (Snyder JW, Atlas RM, LaRocco MT: *Reagents, stains, and media: Mycology*. In: *Manual of Clinical Microbiology*. 10th edition. Edited by J Versalovic, KC Carroll, G Funke, et al. Washington DC, ASM Press, 2011)

PDF Report

No

Specimen Retention Time

Raw specimen saved 7 days

Performing Laboratory Location

Rochester

Fees & Codes**Test Classification**

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

87206

87176-Tissue processing (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
FS	Fungal Smear	55305-7

Result ID	Reporting Name	LOINC®
FS	Fungal Smear	55305-7