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| Fungal Culture  |
| **Purpose** | This procedure provides instruction for Fungal Culture (non-blood) for the Microbiology laboratory. |
| **Principal and Clinical Significance** | In the past, the fungi were regarded as relatively insignificant causes of infection. It is now well documented that the fungi are common causes of infection, particularly in immunocompromised patients. Accurate laboratory results require adequate collection and transport for fungal detection. Fairview Infectious Disease Laboratories (UMMC-East Bank) will perform fungal culture, identification and antifungal susceptibility testing. |
| **Policy Statements** | This procedure applies to Microbiologists who perform culture set-up and plate reading. |
| **Test Code** | FUNG |
| **Materials** |  |  |  |  |
|  | **Supplies** | **Equipment** |
|  | * Sterile leak-proof container
 | * Refrigerator - 4°C
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| **Specimen** | 1. Acceptable specimens
* Respiratory sources, tissue, pus, granules, corneal scrapings, CSF and other body fluids.
* For hair, skin, and nails: see [Dermatophyte Culture](file:///%5C%5Ckidsnet.childrenshc.org%5Cchcdfs%5Cdept%5CLab%20Procedures%5CMicrobiology%5C1NEW%20Micro%20Procedure%20Manual.%20%28same%20as%20in%20Starnet%29%5CMC%201%20Culture%20Procedures%5CMC%201.12%20Dermatophyte%20Culture.docx).
1. Specimen Collection and Transport
* Refer to Lab Test Directory – [Fungal Culture.](https://www.childrensmn.org/References/Lab/microbioviral/fungal-culture-%28non-blood%29.pdf)
1. Special instructions
* Indicate organism suspected or relevant clinical history on requisition form.
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| **Special Safety Precautions** | Microbiologists are subject to occupational risks associated with specimen handling. Refer to the safety policies located in the safety section of the *Microbiology Procedure Manual***.**1. [*Biohazard Containment*](file:///G%3A%5CLab%20Procedures%5CMicrobiology%5C1NEW%20Micro%20Procedure%20Manual.%20%28same%20as%20in%20Starnet%29%5CMCVI%203%20Safety%5CMCVI%203.1%20Biohazard%20Containment.docx)
2. [*Biohazardous Spills*](file:///G%3A%5CLab%20Procedures%5CMicrobiology%5C1NEW%20Micro%20Procedure%20Manual.%20%28same%20as%20in%20Starnet%29%5CMCVI%203%20Safety%5CMCVI%203.4%20Biohazardous%20Spills.docx)
3. [*Safety in the Microbiology Laboratory*](file:///G%3A%5CLab%20Procedures%5CMicrobiology%5C1NEW%20Micro%20Procedure%20Manual.%20%28same%20as%20in%20Starnet%29%5CMCVI%203%20Safety%5CMCVI%203.2%20Safety%20in%20the%20Microbiology%20Lab.docx)
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| **Storage** | 1. If processing is delayed, store specimens at 4°C.
2. Process specimens as soon as possible after collection. Viability can be significantly decreased for *Histoplasma capsulatum*, *Coccidioides immitis*, *Blastomyces dermatitidis*, *Rhizopus sp.*, and *Aspergillus fumigatus* when stored at room temperature or 4°C, especially if the specimens harbor relatively few fungal cells.
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| **Procedure** | Specimen processingPlace specimen in a sterile leak-proof container for transport.1. Label with the patient’s name, accession number, date of collection and source of specimen.
2. Place specimen in a Biohazard zip-lock bag.
3. Clerical
4. The Lab Send-Outs Department will forward the specimen to Fairview Outreach through the Atlas computer program. Patient demographic information must accompany the sample. This information may be found in Sunquest Laboratory Inquiry. Name, MR number, date of birth, specimen source, and requesting physician are needed. The source should also be on the specimen container, in addition to the Sunquest label.
5. Place an accession label in the Micro Send-Outs notebook for tracking reference.
6. Transportation
7. Take specimen to Send-Outs with the above information and they will arrange for pick-up.
8. Place sample in labeled rack in the refrigerator.
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| **Result Reporting** | 1. Record culture results in Sunquest MRE Culture Entry tab in Observations by using customized keyboards or by entering a code in the result box.
2. If mold or yeastis isolated, and the MO code is unknown, do a keyword look-up by typing a semicolon in the result box and click on the *ellipsis* button. Type in a partial/entire word as follows: ASPE. Search on *Description*. Select the desired code by highlighting.

Search valueText code: ASPEClick **Search**.Search option ○ Code◙ DescriptionMatched On Code DescriptionASPERGILLU... ASPE ASPERGILLUS SPECIESASPERGILLU... ASPF ASPERGILLUS FUMIGATUSASPERGILLU... ASPN ASPERGILLUS NIGERClick **Select** to save.Critical Value: Isolation of *Cryptococcus neoformans, Coccidioides immitis, Histoplasma capsulatum, Blastomyces dermitidis, Sporothrix schenkii,* and other fungi in significant body sites will be reported immediately by telephone to the physician or the patient’s nurse. |
| **References** | 1. Hazen, K.C., Section 6. Mycology and aerobic Actinomycetes, 6.1 and 6.2.3. *In* H.D. Isenberg (ed) *Essential Procedures for Clinical Microbiology.* 1998, American Society for Microbiology, Washington, D.C.
2. *Fairview Outreach Laboratory Guide****,*** [Fairview Infectious Disease Diagnostic Laboratories](http://labguide.fairview.org/showtest.asp?testid=1515&format=long)
3. Miller, J. Michael, A Guide To *Specimen Management in Clinical Microbiology,* 1999, American Society for Microbiology, Washington, D.C.
4. Specimen Collection, Transport, and Storage. Versalovic, James (ed.), *Manual of Clinical Microbiology,* 10th edition, 2011. American Society for Microbiology, Washington, D.C.
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| **Training Plan/ Competency Assessment** | **Training Plan** | **Initial Competency Assessment** |
| 1. Employee must read the procedure.
2. Employee will observe trainer performing the procedure.
3. Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer.
 | 1. Direct observation.
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| **Historical Record** |  |  |  |  |
|  | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1.1 | Pat Ackerman | 1973 | Initial Version |
| 1.2 | Pat Ackerman | 11/1982 |  |
| 1.3 | Pat Ackerman | 04/1988 |  |
|  | 1.4 | Pat Ackerman | 07/18/2003 |  |  |  |
| 1.5 | Pat Ackerman | 12/06/2004 |  |
| 1.6 | Pat Ackerman | 7/23/2007 |  |
|  | 1.7 | Becky Carlson | 06/18/2008 | Updated per U of M Outreach Sendout procedure. |
|  | 1.8 | Becky Carlson | 05/27/2009 | Updated storage conditions for CSF |
|  | 1.9 | Jessica Craig | 05/17/2010 | Updated to online format. |
|  | 2.0 | Becky Carlson | 4/16/2015 | Re-numbered from MC 418 for CMS load. |
|  | 3.0 | Susan DeMeyere | 7/27/2017 | Remove hair, skin, and nails, refer to Dermatophyte culture. Changed Result Reporting example to a mold.  |
|  | 4 | Susan DeMeyere | 11/2/2020 | Removed room temperature storage for CSF.  |