

<b>PROGRAM Standard Operating Procedure – Laboratory Services</b>	
Title: MIC32100 – Yeast Culture	Policy Number:
Program Name: Laboratory Services	
Applicable Domain: Lab, DI and Pharmacy Services	
Additional Domain(s):	
Effective Date:	Next Review Date:
Issuing Authority: Director, Health Services	Date Approved:
Accreditation Canada Applicable Standard: N/A	

**GUIDING PRINCIPLE:**

Yeast cultures are performed to identify yeast in select specimens. Yeast isolates are identified and reported based on clinical significance in the location of isolation.

**PURPOSE/RATIONALE:**

This standard operating procedure describes the screening for *Candida albicans* in anal, penis, cervical and vaginal specimens.

**SCOPE/APPLICABILITY:**

This procedure applies to Medical Laboratory Technologists (MLTs) processing specimens for yeast culture.

**SAMPLE INFORMATION:**

<b>Type</b>	Swab <ul style="list-style-type: none"> <li>• Amie’s with or without charcoal</li> </ul>
<b>Source</b>	<ul style="list-style-type: none"> <li>• Anus</li> <li>• Penis</li> <li>• Cervix</li> <li>• Vagina</li> </ul>
<b>Stability</b>	If the sample is received in the laboratory and processed greater than 48 hours from collection: <ul style="list-style-type: none"> <li>• Add specimen quality comment: “Delayed transport may adversely affect pathogen recovery”</li> </ul>
<b>Storage Requirements</b>	Room temperature
<b>Criteria for rejection</b>	<ol style="list-style-type: none"> <li>1. Unlabeled/mislabeled swabs</li> <li>2. Specimen container label does not match patient identification on requisition</li> </ol>

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**REAGENTS and/or MEDIA:**

- Sabouraud Dextrose agar (SAB)

**SUPPLIES:**

- Disposable inoculation needles
- Microscope slides
- Sterile saline
- Wooden sticks
- Coverslips

**EQUIPMENT:**

- Biosafety cabinet
- Microscope
- Vitek 2 and supplies

**SPECIAL SAFETY PRECAUTIONS:**

Containment Level 2 facilities, equipment, and operational practices for work involving infectious or potentially infectious materials or cultures:

- Ensure that appropriate hand hygiene practices be used
- Lab gown must be worn when performing activities with potential pathogens
- Gloves must be worn when direct skin contact with infected materials is unavoidable
- Eye protection must be used when there is a known or potential risk of exposure of splashes
- All procedures that may produce aerosols, or involve high concentrations or large volumes should be conducted in a biological safety cabinet (BSC)
- The use of needles, syringes and other sharp objects should be strictly limited

All patient specimens are assumed to be potentially infectious. Routine Practices must be followed. Since viable micro-organisms are used, all cultures must be handled with appropriate precautions. All equipment in contact with cultures should be decontaminated by appropriate methods.

**QUALITY CONTROL:**

- Refer to Test Manual for reagent quality control procedures

**PROCEDURE INSTRUCTIONS:**

Step	Action
<b>Processing specimens for yeast culture</b>	
1	In the biosafety cabinet: <ul style="list-style-type: none"><li>• Inoculate SAB with the swab</li><li>• Ensure all surfaces of the swab make contact with the agar</li><li>• Streak for isolated growth using a disposable inoculation needle</li><li>• Write on the plate the date of the 48 hour read</li></ul>
2	Incubate the media: <ul style="list-style-type: none"><li>• Place SAB on the appropriate workbench</li></ul>

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**INTERPRETATION OF RESULTS:**

Step	Action	
1	<ul style="list-style-type: none"> <li>Observe SAB plate at 48 hours</li> <li>Examine for white, creamy colonies resembling yeast</li> </ul>	
2	If no colonies resembling yeast are seen at 48 hours: <ul style="list-style-type: none"> <li>Record observations in the LIS</li> <li>Workup complete</li> <li>No yeast isolated</li> </ul>	
3	If colonies resembling yeast are seen: <ul style="list-style-type: none"> <li>Record observations in the LIS</li> <li>Perform a wet prep of the colonies</li> </ul>	
4	<b>IF</b>	<b>THEN</b>
	Wet prep NEGATIVE	<ul style="list-style-type: none"> <li>Workup complete</li> <li>Yeast not isolated</li> </ul>
	Wet prep POSITIVE	<ul style="list-style-type: none"> <li>Perform Vitek 2 YST card</li> </ul>

**REPORTING INSTRUCTIONS:**

IF	REPORT
Yeast not isolated	<ul style="list-style-type: none"> <li>Report: <b>"No Yeast Isolated"</b></li> </ul>
Yeast Isolated, <i>Candida albicans</i>	<ul style="list-style-type: none"> <li>Report organism identification</li> <li>List quantitation as <b>"Isolated"</b></li> </ul>
Yeast Isolated, not <i>Candida albicans</i>	<ul style="list-style-type: none"> <li>Add isolate: <b>"Yeast (NOT Candida species)"</b></li> <li>Use LIS OrgID: <b>ystnot</b></li> <li>List quantitation as <b>"Isolated"</b></li> </ul>

**LIMITATIONS:**

- The Vitek 2 YST card provides an acceptable identification for *Candida* spp. and results can be reported as tested.
- If yeast other than *Candida* spp. are isolated, the identification should not be reported.

**REFERENCES:**

- Leber, A. (2016). *Clinical microbiology procedures handbook*. (4<sup>th</sup>ed.) Washington, D.C.: ASM Press
- Jorgensen J.H., Pfaller M.A., Carroll K.C., Funke G., Landry M.L., Richter S.S., Warnock D.W. (2015). *Manual of Clinical Microbiology, 11<sup>th</sup> edition*. Washington, D.C: ASM Press

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**APPROVAL:**

\_\_\_\_\_  
Date

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**REVISION HISTORY:**

REVISION	DATE	Description of Change	REQUESTED BY
1.0	31 Dec 21	Initial Release	L. Steven

DRAFT

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