PROGRAM Standard Operating Procedure – Laboratory Services	
Title: MIC32200 – Nasal Culture	Policy Number:
Program Name: Laboratory Services	
Applicable Domain: Lab, DI and Pharmacy Services	
Additional Domain(s): NA	
Effective Date:	Next Review Date:
Issuing Authority: Director, Laboratory and Diagnostic Imaging Services	Date Approved:
Accreditation Canada Applicable Standard: NA	

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GUIDING PRINCIPLE:
Nasal swabs are performed to identify nasal carriers of *Staphylococcus aureus*.

PURPOSE/RATIONALE:
This standard operating procedure describes the screening for *Staphylococcus aureus* in nasal specimens.

SCOPE/APPLICABILITY:
This procedure applies to Medical Laboratory Technologists (MLTs) processing specimens for nasal culture.

SAMPLE INFORMATION:

Type	Swab • Amie's with or without charcoal
Source	Nose
Stability	If the sample is received in the laboratory and processed greater than 48 hours from collection: • Add specimen quality comment: "Delayed transport may adversely affect pathogen recovery"
Storage Requirements	Room temperature
Criteria for rejection	1. Unlabeled/mislabeled swabs 2. Specimen container label does not match patient identification on requisition 3. Duplicate specimens obtained with same collection method within 24 hours

REAGENTS and/or MEDIA:

- Blood agar (BA) and Mueller Hinton agar (MHP)
- Identification reagents: catalase, Staph latex test and cefoxitin antibiotic disks

SUPPLIES:

- Disposable inoculation needles
- Wooden sticks

EQUIPMENT:

- Biosafety cabinet
- 35° CO_2 incubator

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
Processing specimens for nasal culture	
1	In the biosafety cabinet: • Inoculate BA with the swab • Ensure all surfaces of the swab make contact with the agar • Streak for isolated growth using a disposable inoculation needle
2	Incubate the media: • Place BA in the CO_2 incubator

INTERPRETATION OF RESULTS:

Step	Action	
1	• Observe BA plate at 24 hours and 48 hours • Examine for colonies resembling *Staphylococcus aureus*	
2	If no *S.aureus* colonies are seen at 24 hours: • Record observations in the LIS • Re-incubate plate in CO_2 incubator on the "Old wound culture" shelf	
3	If no *S.aureus* colonies are seen at 48 hours: • Record observations in the LIS • Workup complete • *Staphylococcus aureus* not isolated	
4	If *S.aureus* colonies are seen: • Record observations in the LIS • Subculture colonies to BA plate if no isolated colonies are present • If isolated colonies are present, perform Staph latex test	
5	**IF**	**THEN**
	Staph latex test NEGATIVE	• Record observations in the LIS • Workup complete • *S.aureus* not isolated
	Staph latex test POSITIVE	• Record observations in the LIS • *S.aureus* isolated • Perform cefoxitin disk diffusion test
	IF	**THEN**
	Cefoxitin screen SENSITIVE	• Record observations in the LIS • Methicillin sensitive *S.aureus* isolated
	Cefoxitin screen RESISTANT	• Record observations in the LIS • Methicillin resistant *S.aureus* isolated

REPORTING INSTRUCTIONS:

IF	REPORT
Staphylococcus aureus not isolated	• Report: "**No Staphylococcus aureus isolated"**
Methicillin sensitive *Staphylococcus aureus* isolated	• Add organism: "**Staphylococcus aureus"** • List quantification as **"Isolated"** • Report organism with isolate comment **&MSSA**
Methicillin resistant *Staphylococcus aureus* isolated	• Add organism: "**Staphylococcus aureus"** • List quantification as **"Isolated"** • Report organism with isolate comment **&cx01** • In order entry, copy report to OCPHO (HPU1) • Check the home address of the patient. If from Nunavut: Copy report to the applicable NU CPHO • In order entry, copy report to appropriate IPAC ward if ER or In-patient • In order entry add ESO code "MRSA"

NOTE: STH IPAC ward is **SIPAC**. IRH IPAC ward is **IIPAC**

CROSS-REFERENCES:
NA

REFERENCES:
1. Leber, A. (2016). *Clinical microbiology procedures handbook.* (4th ed.) Washington, D.C.: ASM Press
2. 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, 11th edition*. Washington, D.C: ASM Press

APPROVAL:

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Date

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REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	03 Mar 19	Initial Release	L. Steven
2.0	22 Feb 21	Procedure reviewed and added to NTHSSA policy template	L. Steven
3.0	27 Feb 23	Procedure reviewed	L. Steven