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):	
Effective Date:	Next Review Date:
Issuing Authority: Director of Health Services	Date Approved:
Accreditation Canada Applicable Standard: N/A	

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

PURPOSE/RATIONALE:
To determine the presence or absence of *Staphylococcus aureus* in nasal specimens.

SCOPE/APPLICABILITY:
This procedure applies to Medical Laboratory Technologists 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 potential 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 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**	**THEN**
	No *S.aureus* colonies seen at 24 hours	• Record observations in the LIS • Re-incubate plate in CO_2 incubator on the "Old wound culture" shelf
	No *S.aureus* colonies seen at 48 hours	• Record observations in the LIS • Workup complete • *S.aureus* not isolated
3	**IF**	**THEN**
	S.aureus colonies are not isolated on original BA	• Subculture colonies to BA • Perform Staph latex test
	S.aureus colonies are isolated on original BA	• Perform Staph latex test
4	**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 **&MRSA** • In order entry, copy report to OCPHO (HPU1) • 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**. Territorial IPAC ward is **TIPAC**

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