

Document Name:

Genital Culture – Group B Streptococcus Screening

Approved By:

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Status: **APPROVED**

PURPOSE: To screen for Group B Streptococcus in prenatal patients and provide guidance in the identification of isolated beta-hemolytic Streptococcus spp.

SAMPLE INFORMATION:

Type	Swab <ul style="list-style-type: none"> Amie's with or without charcoal
Source	Collect a combined introital (vaginal and anorectal area) swab. Specimen for GBS screening in pregnancy should be collected at 35 to 37 weeks gestation
Stability	If the sample is received in the laboratory and processed greater than 48 hours from collection: <ul style="list-style-type: none"> Add specimen quality comment: "Delayed transport may adversely affect pathogen recovery"
Storage Requirements	Room temperature
Criteria for rejection and follow up action	<ol style="list-style-type: none"> Unlabeled/mislabeled swab Dry swab

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Document Name: Genital Culture – Group B Streptococcus Screening	Document Number: MIC30700	
	Version No: 2.0	Page: 2 of 5
	Effective: 28 April, 2017	

REAGENTS and/or MEDIA:

- LIM Broth and Blood (BAP) agar
- Identification reagents: catalase, rapid strep latex test for Group B Strep

SUPPLIES:

- Sterile pipettes and wooden sticks
- Streptococcus latex testing cards
- Glass test tubes
- Biosafety cabinet
- 35° CO₂ incubator

SPECIAL SAFETY PRECAUTIONS:

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

- 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. Universal precautions 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 MIC60100 Non-Exempt Media Quality Control procedure

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FILENAME:MIC30700.2GenitalCulture-GroupBStreptScreenPRO	Print Date: 6/23/2018 1:38:00 PM

PROCEDURE INSTRUCTIONS:

Step	Action	
Processing swabs for Group B Streptococcal screening		
1	Place swab into LIM broth, leaving the swab in the broth medium. Loosely recap.	
2	Incubate broth at 35° in CO ₂ incubator	
3	Subculture the broth after 18-24 hours of incubation to BAP. Incubate subculture plate at 35° in CO ₂	
4	Examine BAP subculture plate for large, grey, translucent colonies with a small zone of beta-hemolysis or no zone of hemolysis. Record observations in the LIS.	
5	Perform catalase test on suspect colonies	
6	IF	THEN
	Catalase: POSITIVE	Work-up complete. No GBS
7	IF	THEN
	Latex Agglutination Test: NEGATIVE	Work-up complete. No GBS
8	IF	THEN
	Group B screen is positive and clinical history does not state penicillin allergy	Susceptibility testing not performed
	Group B screen is positive and clinical history states penicillin allergy	Perform susceptibility testing as per ASTM

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REPORTING OF RESULTS:

IF	THEN
No GBS	<ul style="list-style-type: none"> Report: “No Streptococcus agalactiae (Group B) isolated” A copy is automatically sent to the STH Obstetrics Unit by the LIS
GBS isolated and no penicillin allergy indicated in clinical history	<ul style="list-style-type: none"> Add organism: “Streptococcus agalactiae” Add quantity: “Isolated” Use canned culture comment: “Please inform laboratory (669-4162) of known penicillin allergy as soon as possible so that susceptibility testing can be performed.” A copy is automatically sent to the STH Obstetrics Unit by the LIS
GBS isolated and clinical history indicates penicillin allergy	<ul style="list-style-type: none"> Add organism: “Streptococcus agalactiae” Add quantity: “Isolated” Report susceptibility results as per ASTM A copy is automatically sent to the STH Obstetrics Unit by the LIS

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REFERENCES:

- Clinical Microbiology Procedures Handbook, 4th edition, ASM Press, 2016
- 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, ASM Press, Washington, D.C.

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	23-Dec-16	Initial Release	L. Steven
2.0	28 Apr 2017	Renumbered Document; Updated Logo	JGD Bernier