

10X Essentials: Infectious Disease Diagnostics in the Geisinger Health System

Group B *Streptococcus* (GBS) Testing Guide

Clinical and Diagnostic Utility

http://www.geisingermedicallabs.com/10xEssentials/testing_guides.shtml

- The standard for **prevention of neonatal GBS** disease is **screening pregnant women with a molecular test method at 35–37 weeks of gestation** to determine their colonization status, which can be transient, chronic, or intermittent. Guidelines recommend intrapartum antibiotic prophylaxis (IAP) for parturient women who have a screen positive for group B *Streptococcus* (GBS).
- The **Xpert GBS LB Assay (test code GRBS)** is one of the methods indicated for assessment of GBS colonization status in antepartum women.
- GRBS is designed to detect GBS DNA from **Lim broth-enriched vaginal/rectal swab specimens**, **GRBS results are obtained in approximately one day** after collection, with susceptibility results 1d later.

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GBS

Testing Criteria

Specimen: swab specimen(s); vaginal/rectal combination (swabbing both the lower vagina and rectum (past the anal sphincter) is recommended by the Centers for Disease Control and may increase yield compared with sampling the one site alone).

Approved devices: Molecular Testing swab (white cap), ESswabs™ (white cap).

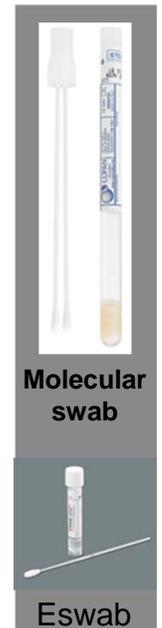
Transport Temperature: Preferred transport temperature to laboratory at **2-8 degrees C** (stability = 6 days).

Antibiotic Susceptibility Testing: Susceptibility testing is performed for all positive patients due to increasing antibiotic resistance in our region, lack of consistent reliable data to identify penicillin allergic patients, and the desire to avoid excessive vancomycin use if clindamycin susceptibility results are unknown. A susceptibility battery (GRBSS-OBL, Group B Susceptibility) will be automatically ordered in the Laboratory Information System (LIS) and performed by Microbiology.

The susceptibility battery includes: penicillin, clindamycin, tetracycline, vancomycin, erythromycin and inducible clindamycin resistance (D-zone test). Although erythromycin susceptibility is tested, it is **not** reported due to increasing rates of resistance and poor placental penetration. Erythromycin is not recommended as intrapartum antibiotic prophylaxis and therefore susceptibility is not reported.

Contraindications: 1) Patients who have used systemic or topical (vaginal) antibiotic treatment in the week prior
2) patients diagnosed with placenta previa 3) males.

Performance: Demonstrated sensitivity/specificity for detection of GBS is 99.0% and 92.4%, respectively, relative to culture.



Molecular
swab

Eswab

dmw/rmm/lis: gbs , ver. 1, 3/21/2013 ,revised 2/6/2014

Questions? Call Microbiology: 570-271-6504

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