

GROUP B STREPTOCOCCUS INFECTION

INTRODUCTION

Group B streptococcus (GBS) infection is the infection caused by the bacterium ***Streptococcus agalactiae***. Group B streptococcal infection can cause serious illness and sometimes death, especially in newborns, the elderly, and people with compromised immune systems. In general, GBS is a harmless commensal bacterium being part of the human microbiota colonizing the gastrointestinal and genitourinary tracts of up to 30% of healthy human adults (asymptomatic carriers).

Vaginal colonization rates range from 4 to 36%, with most studies reporting over 20%. GBS is the main cause of bacterial infections in newborns, such as septicemia, pneumonia, and meningitis, which can lead to death or long-term after effects. Infections in newborns are separated into two clinical types, early-onset disease (EOGBS) and late-onset disease (LOGBS). EOGBS manifests from 0 to 7 living days in the newborn, most of the cases being apparent within 24 hr. LOGBS starts between 7 and 90 days after birth. EOGBS is acquired through exposure of the fetus or baby to GBS from the vagina either in utero or during birth.

TREATMENT

If you're pregnant and develop complications due to group B strep, you'll be given oral antibiotics, usually penicillin or cephalexin, which are safe to take during pregnancy. If your baby tests positive for group B strep, he or she will be given intravenous (IV) antibiotics to destroy the bacteria.

PREVENTION

- ☒ Pregnant women should undergo vaginal-rectal screening for GBS colonization at 35-37 weeks.
- ☒ Intrapartum antibiotic prophylaxis (IAP) is recommended for:
 - ☒ Women who delivered a previous infant with GBS disease
 - ☒ Women with GBS bacteriuria in the current pregnancy



TRANSMISSION

Is associated with sexual activity, but no transmission events have been documented. Similar to other sexually transmitted infections, GBS colonization is associated with multiple sex partners, frequent sexual intercourse, and acquisition of a new sex partner [3]. Studies of pregnant couples [4] and college-aged couples [5] found high proportions of co-colonization with the same serotype or identical pulsed-field gel electrophoresis (PFGE) type. Male-to-female oral sex was strongly associated with sharing the identical GBS strain, as determined by PFGE [5]. In this report, we document a transmission event that occurred in a pregnant couple during the third trimester and estimate the risk of transmission between sex partners during pregnancy.

INDICATIONS FOR TESTING: If you're a healthy adult, there's nothing you need to do about group B strep. If you're pregnant, get a group B strep screening test during your third trimester. If you have group B strep, antibiotic treatment during labor can protect your baby. In infants, group B strep can cause fever, difficulty feeding or breathing and lethargy.

CAUSE: Sexually transmitted pathogenic bacteria, parasites or viruses.

PATHOGENS TESTED: *Streptococcus agalactiae*

METHODOLOGY: Retrogen's Laboratory methodology uses the TaqMan® genotyping assay with PCR and allelic specific primer extension (ARMS) to identify the pathogens present in vaginal swabs.

ANALYTICAL SENSITIVITY AND SPECIFICITY: 99 percent.

ORDERING

Test ID:

Turn-around Time: 2 Weeks

Preferred Specimen: Vaginal swab.

[Click Here for Specimen Collection and Shipping](#) **TBD**

BILLING

CPT Codes: **TBD**

Billing Information: **TBD**

WEB RESOURCES

Mayo Clinic Staff (Updated 2012 February 25). Vagina: What's normal, what's not.

<http://www.mayoclinic.com/health/vagina/MY01913/METHOD=print> through <http://www.mayoclinic.com>. Accessed March 2013.

Gore, H. (Updated 2011 October 27). Vaginitis. <http://emedicine.medscape.com/article/257141-overview> through <http://emedicine.medscape.com>.

Samra-Latif, O. (Updated 2012 January 13). Vulvovaginitis. <http://emedicine.medscape.com/article/270872-overview> through <http://emedicine.medscape.com>. Accessed March 2013.

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Amsel R, Totten PA, Spiegel CA, et al. Nonspecific vaginitis: Diagnostic criteria and microbial and epidemiologic associations. Am J Med 74(1):14-22, 1983.

Verstraelen H, Verhelsy R. Bacterial vaginosis: An update on diagnosis and treatment. Expert Rev Anti Infect Ther 7(9):1109-1124, 2009.

Spiegel C, Amsel R, Holmes K. Diagnosis of bacterial vaginosis by direct gram stain of vaginal fluid. J. Clin. Microbiol. July 1983 vol. 18 no. 1, 170-177.