homebirth & women's health

WomanWise

Informed Choice:
Group Beta Strep Testing

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What is Group B Strep?
Group B streptococcus (GBS) is a type of bacteria that is commonly found in the intestinal tract of people of all ages and is rarely harmful. Not everyone carries it all the time, and a woman may have GBS at one time and then not have it later. All around the world, anywhere from 10-30% of pregnant women carry GBS in their bodies (Johri et al. 2006). Most women with GBS do not have a GBS infection or any symptoms, but it can be transmitted to babies if it is present in the mom's vagina or rectum at the time of birth (CDC 2010).

There are two forms of GBS infection in newborns: early onset (seen within the first hours to one week of life) and late onset (seen from one week to several months of life). Early onset is the most common GBS infection, and is associated with vertical transmission from a GBS positive mother. Late onset is nosocomial, thought to come from NICUs or hospital nurseries.

How do I know if I have GBS?
To screen for GBS, a sterile swab (a big Q-tip) is used to sweep just inside of the vagina and rectum between 35-37 weeks gestation. The resulting sample is then sent to the lab and cultured to determine your GBS status in this pregnancy. In this practice we use the evidence based practice of self-sampling and you may collect the sample yourself at a prenatal visit. The results of the screen are considered valid for 5 weeks. Because it is a transient bacteria women can have different screening outcomes for each pregnancy, can test positive for GBS temporarily, on-and-off, or persistently (CDC 2010).

How Accurate is GBS testing?
In a recent study researchers did the GBS culture test twice – once at 35-36 weeks and once during labor. Of the women who screened negative for GBS at 35-36 weeks 9% became GBS positive during labor. Of the women who screened positive for GBS at 35-36 weeks 16% became GBS-negative by the time they went into labor.

Currently 61% of the cases of GBS infection in full-term infants occur in women who have been screened but tested negative for GBS (Van Dyke et al. 2009; Young et al. 2011).

What are the risks of GBS to my baby?
While GBS infection of the baby is very rare, it is serious because babies' immune systems are immature GBS can rapidly lead to systemic infection. Researchers are quite certain that infants catch early GBS infections before they are born and almost all infants with early GBS infection show symptoms within an hour after birth.

The study of the incidence of GBS in newborns is based solely upon research done in hospitals; most of them large, tertiary care centers. Personalized and non-interventive care is not the norm in this setting.

- Among pregnant women in the US — Approximately 1 in 4 women carry GBS
- 0.2% of babies born to GBS positive moms who treated with antibiotics in labor will develop a GBS infection (Ohlsson 2013).
- Less than 1-2% of babies born to GBS positive moms who do not treat with antibiotics will develop a GBS infection.
- Out of 100 full term babies who get sick from early onset GBS, 2-3 will die (CDC 2010).

As of yet, there are no published rates derived from out-of-hospital births attended by midwives. This is significant because homebirths are associated with fewer vaginal interventions during labor, fewer maternal fevers, and less time between rupture of membranes and birth.

What are the symptoms of a GBS infection in a newborn?
- *Call your midwife immediately if you observe any of the following*
  - Breathing problems
  - Not eating well
  - Extreme drowsiness
  - Unstable temperature (low or high)

What are the risk factors?
Research shows that the primary risk factor for early GBS infection is a positive GBS culture from the mother, about 60% of infants who develop an early GBS infection have no major risk factors.

There are some things that increase the risk of early GBS infection
- Being born at less than 37 weeks

- A long period between water breaking and birth
- High maternal temperature during labor
- Water breaking before labor begins
- Mother who previously gave birth to an infant who had an early GBS infection
- **The risk of GBS infection is increased when routine obstetrical interventions, including vaginal exams, stripping membranes, and artificial rupturing of membranes, are used during labor and birth. In midwifery practice obstetrical interventions are reduced to a minimum in order to reduce the likelihood of GBS infection.**

How is GBS infection prevented?
The CDC recommends that women who are colonized with GBS receive IV antibiotics, every 4 hours during the course of labor until the birth of her baby. Prophylactic (preventative) antibiotic treatment for prevention of early-onset GBS infection in the newborn is shown to be 86-89% effective.

What are the risks of antibiotic treatment?
Notable risks of using IV antibiotics during labor include possible allergic reaction to the antibiotic, possible resistance of the antibiotic by the GBS bacteria (Up to 29% of GBS strains have been shown to be resistant to non-penicillin antibiotics,) and an increase in the incident of yeast and thrush infection after the birth due to the killing of the healthy bacteria in your body.

The standard of care emphasizing antibiotics for all GBS-positive women does not address topics that are particularly pertinent to understanding why GBS infects certain babies and how therapies can be targeted more effectively.

- It is not known if antibodies to GBS are produced in breastmilk,
- nor whether mothers produce antibodies to GBS that pass through the placenta,
- nor whether certain strains of GBS are more infectious than others.
- It is not known whether maternal colonization by GBS that occurs for the first time during pregnancy has an impact on newborn infection rates, as it does for certain other infections during pregnancy.

Most significantly, no studies have ever been published that indicate whether the strain of GBS, which infected most babies with sepsis, was the same strain that the mother carried, or was nosocomial (a strain picked up from the hospital environment).

What are the alternatives to GBS testing?
You may choose not to be tested. The benefits and risks of this action must be considered and discussed with your midwife. If you carry GBS at the time of the birth your baby may get sick from it. This risk is very low if your baby is born at term and is normally sized (less than 1 in 1,000). If you birth in a hospital and do not know your GBS status, you will be strongly encouraged by the hospital staff to receive IV antibiotics.

What are alternative treatment options?
Excellent nutrition, immune enhancing herbal therapies, vaginal herbal rinses, and good hygiene help to reduce the colonization of GBS.

There is some research to support the use of chlorhexidine (Hibiclens) as a vaginal rinse during labor to prevent the transmission of GBS to newborns. Though chlorhexidine reduces the number of babies that are colonized with GBS the same number of babies still become infected with GBS. Unlike IV antibiotics, there is no evidence that chlorhexidine can stop GBS from growing in the baby's lungs before birth.

Empirical data supports the use of alternative treatments such as oral garlic capsules, tea tree oil vaginal suppositories, Echinacea tincture, homeopathic remedies and probiotics to promote healthy flora. You can ask your midwife for more information on these modalities.

References:
http://www.ncbi.nlm.nih.gov/pubmed/17169231
http://evidencebasedbirth.com/groupbstrep/
http://www.highlandmidwife.com/docs/GBS.pdf

Group B Strep Informed Choice Signature Page

I have been provided with written information GBS testing and treatment and have had the chance to ask questions. I understand the benefits and risks of Group B Strep testing and the treatment I have chosen. I believe that my midwife has honored my right to make my own informed decision. I understand the Group B Strep testing is not mandatory and believe in my right to accept or decline any test or treatment. I also understand that I can withdraw my consent or revise my decision at any time.

I take full responsibility for the health of my child, and I will ensure that if my infant displays any symptoms of GBS infection, regardless of treatment or modality, I will immediately have my infant checked by a healthcare provider with pediatric expertise. I further understand that if I choose any treatment other than antibiotic therapy and transport from the planned home birth becomes necessary, many hospitals will consider me to be untreated and will initiate IV antibiotic therapy for me during labor and/or for my baby after he/she is born.

My choice for testing is indicated below:

____ I choose not to screen for GBS

____ I choose to screen for GBS at 36-38 weeks

If my culture is positive for GBS, my decision regarding treatment is:

____ I choose not to treat for GBS at this time

____ I prefer homeopathic treatment as recommended by my homeopathic healthcare provider

____ I will use nutritional or herbal treatment (oral or intravaginal) soon after I am informed of my GBS positive status. Describe treatment:_____

____ I request the use of Chlorhexidine as a vaginal wash during labor

____ I desire antibiotic treatment during labor

_____ _____
Client Signature Date

_____ _____
Midwife Signature Date