

Screening for Group B Streptococcus

What is Group B Streptococcus?

Group B Streptococcus (GBS) bacteria is a common bacteria found in about 10-30% of pregnant women. GBS bacteria generally do not produce symptoms in a healthy adult. Colonization with GBS is transient, intermittent, or chronic, meaning that some women can test positive at certain times and not at others. Women who test positive for GBS in late pregnancy (after 35-37 weeks), or women who have a urinary tract infection caused by GBS at any point in pregnancy, are considered to be colonized by GBS at the time of birth, and are therefore at risk of passing GBS bacteria to their newborn.

Why should I be aware of Group B Streptococcus (GBS)?

Of the pregnant women who test positive for GBS, about 50% of their newborns will have the bacteria transmitted to them either as they are born through the birth canal, or prior to birth as a result of the bacteria entering the amniotic sac (bag of waters). Most babies (~98%) will not be affected by the transmission of GBS during labour. About 1-2% of the babies colonized with the bacteria (1% of all babies born to GBS positive mothers), will develop an infection. A **small percentage** of the full-term babies who develop a GBS infection will die.

Two types of GBS infections can occur in the newborn:

- *Early onset disease* usually starts within hours of birth up to 7 days of age, and has a mortality rate of 2-3%. Sepsis (blood infection), and pneumonia (lung infection) are the most frequently seen problems. Premature babies are more susceptible to GBS disease than full-term babies.
- *Late onset disease* can occur in newborns from 7 days to 3 months of age. It is less common and has a lower mortality rate. Meningitis (infection of the fluid and lining around the brain) is more common with late-onset disease. Only half of late-onset GBS disease among newborns comes from a colonized mother; the source of infection for the other 50% is unknown. Late-onset GBS disease is very rare.

How do I know if I am carrying GBS bacteria?

The current guidelines recommend that all pregnant women be tested for GBS at 35 to 37 weeks gestation. A sterile swab is used to collect a sample from the vagina and the rectum. Studies show that results are the same if the client collects her own swab as if the swab is done by a health care provider. This is sent to a laboratory for testing; results are available within a few days.

What treatment is recommended?

If the swab is *negative*, no treatment is required. If the swab is *positive*, you will be offered treatment with intravenous antibiotics when you are in active labour or when your water breaks, whichever happens first. Please note that our current community standard is to recommend immediate induction of labour if your water breaks prior to labour and you are GBS-positive.

Women with either a GBS-positive bladder infection during the current pregnancy or a previous delivery of a newborn with GBS disease do not require testing in late pregnancy. These women are considered positive and are therefore offered intravenous antibiotic treatment in labour.

If you decline testing for GBS, or if you go into labour before results are known, you will be offered antibiotics if you develop any of the following risk factors:

- Labour starting at less than 37 weeks (preterm labour);
- Prolonged ruptured membranes (water breaking more than 18 hours before labour starts);
- Fever during labour.

How are antibiotics administered?

Antibiotics are given through an IV in your arm. The antibiotics work to reduce the level of GBS and to provide protection to the baby should he/she become colonized with GBS. Antibiotics are most effective if given at least four hours before delivery. Penicillin is the most effective antibiotic, with alternative antibiotics used for those with an allergy to Penicillin. The antibiotic takes about 30 minutes to administer, and is repeated every 4 hours until the birth of your baby. Midwives and physicians are able to administer these antibiotics at home for clients planning homebirth.

Risk of GBS infection in the newborn:

1 in 200 babies born to GBS-positive women who do *not* receive antibiotics in labour
1 in 4,000 babies born to GBS-positive women who receive at least 1 dose of antibiotics in labour

All babies born to GBS-positive mothers are watched for signs of infection, especially those who do not receive antibiotics in labour or those who are at increased risk of developing GBS infection. If your baby develops any symptoms of infection they will be cared for in the Neonatal Intensive Care Unit (NICU). Well babies who do not develop symptoms of infection are able to go home from the hospital or stay with you at home as usual after a normal birth.

INFORMED CONSENT

I have read and understand the above information and have had my questions answered.

- I choose to be tested for GBS. I am aware that I will be offered IV antibiotics in labour if the culture is positive regardless of the presence or absence of other risk factors, and that induction will be recommended if my water breaks before labour.
- I have GBS in my urine, or have had a baby with GBS infection in the past. I understand that I do not require a swab at 35-37 weeks, and that I will be offered IV antibiotics in labour.
- I choose not to be tested for GBS. I am aware that I will be offered IV antibiotics in labour if I develop risk factors including preterm labour (prior to 37 completed weeks), maternal fever in labour (>38.0 C), or if my membranes are ruptured for more than 18 hours before delivery.

Client's signature: _____ Date: _____

Care provider's signature: _____ Date: _____

References

1. The Society of Obstetricians and Gynaecologists of Canada (SOGC). October 2013. Clinical Practice Guideline No. 298: The Prevention of Early-Onset Neonatal Group B Streptococcal Disease. http://sogc.org/wp-content/uploads/2013/09/October2013-CPG298-ENG-Online_Final.pdf
2. Centres for Disease Control and Prevention. Clinical Practice Guidelines: Prevention of Perinatal Group B Streptococcal Disease. *Morbidity and Mortality Weekly Report (MMWR)* 2002;51 (No.RR-11). <http://www.cdc.gov/groupbstrep>
3. Centres for Disease Control and Prevention. Frequently Asked Questions: Group B Strep http://www.cdc.gov/groupBstrep/general/gen_public_faq.htm