

INFORMATION ABOUT GROUP B STREPTOCOCCUS (GBS)

What is GBS?

Group B streptococcus (GBS) is a bacteria found normally in the vagina or lower intestine of one in every four or five adults. A woman who has these bacteria in her vagina and rectum without having any symptoms is said to be colonized with GBS (GBS positive). Most women who are colonized will never know it because it rarely makes them sick. GBS is not sexually transmitted and is NOT a reflection of hygiene.

What does GBS mean for pregnancy and babies?

Of the mothers who are colonized, approximately 50% will pass the bacteria onto their babies during the birthing process. While most babies are not affected by the bacteria, a small number (1-2%) of these babies will go on to develop a GBS infection. Babies who are infected with GBS may have mild to severe problems which may affect their blood, brain, lungs and spinal cord. Approximately 5-9% of babies who are sick with GBS will die. No one method of screening (testing) and treatment will prevent all GBS infant deaths.

What are the recommendations about GBS?

The CDC (Centers for Disease Control in the United States) and SOGC (Society of Obstetricians and Gynecologists of Canada) recommend doing a test for GBS in pregnancy. The test is done at 35 – 37 weeks of pregnancy and is taken by inserting a swab into a woman's vagina and rectum. Midwives will instruct women on how to take the swab themselves if they would like. The swab is sent to the lab to see if GBS is present.

If the test is positive?

If the test is positive, it is recommended that women receive intravenous antibiotics (medication directly into a vein) in labour or when the bag of waters breaks. Ideally the antibiotics are received at least four hours prior to delivery. Since midwives do not write prescriptions for antibiotics, a consultation with an obstetrician will be arranged during the pregnancy for a prescription of antibiotics to be given in labour. Treating the bacteria in pregnancy before the labour starts will not work because the bacteria may come back at the time of labour. From research, we know that if you have a GBS positive swab, you will likely be positive for the next 5 weeks.

What are the risks of IV antibiotics in labour?

The Centre for Disease Control outlines three areas of concern about IV antibiotics in labour.

1. There is a 1/100,000 risk that a woman will have anaphylaxis (severe allergic reaction) to the antibiotics.
2. There is the concern that GBS may become resistant to antibiotics resulting in a disease which is more difficult to treat. This second concern has not been proven by the research.
3. The IV antibiotics given to mother may kill most of the GBS, but make babies more vulnerable to other bacteria. This also has not been proven, but remains an ongoing area of study and concern.

Choosing not to do the test?

Some women decline testing and use the 'risk-factor' approach. With this method, antibiotics are only given if one of the five risk factors are present in labour. When comparing the two methods, researchers found that a risk factor approach resulted in a 69% decrease in disease with 18% of women being treated, whereas the screening approach resulted in an 86% decrease in disease with 27% of women being treated.

Risk Factors

1. Bladder infection with GBS in her pregnancy.
2. Previous baby with GBS infection.
3. Preterm labour (delivery at less than 37 weeks of pregnancy)
4. Fever in labour.
5. Having the water broken for more than 18 hours.

GBS infection in newborn babies.

There are two types of GBS infections that can happen to newborn babies. The most common type is called early-onset disease. In this case, the babies are almost always infected during their journey down the birth canal because the bacteria were in the mother's vagina. The symptoms of early-onset infections show up before the baby is seven days old. Signs of this infection may include lethargy, poor feeding, jaundice, abnormal temperature or colour, grunting or rapid respirations.

The second type is called late-onset disease. In this case, the babies don't show signs of a GBS infection until after they are more than seven days old. About half of these babies were also infected during their birth. The other half became infected after the birth by being in contact with a person who is a carrier of the disease. Late-onset infections can also cause serious problems for the newborn. The risk of late-onset disease is not decreased by antibiotic treatment in labour but antibiotics are available for the baby if he or she becomes sick.

Recommended follow-up for the baby when mom is GBS positive.

If a baby seems well and antibiotics were given at least four hours before the baby was born, the hospital protocol does not recommend further tests or treatments for babies. Your midwife will still watch for signs of infection as we do with all babies.

If no antibiotics were given, 24 hours observation in the hospital is recommended along with a CBC (blood test) which looks for signs of infections. The test is usually done when the baby is four hours old. Most babies are not sick even if this first test is abnormal, but further tests would be ordered. Usually your midwife will consult with a paediatrician if further tests are needed. If some, but not all the antibiotics were given, then the hospital protocol is for babies and mothers to stay at the hospital for 48 hours of observation as well as having the blood test (CBC). Midwives consult with a paediatrician if there are signs of infection in any baby.

Questions?

Deciding to swab for GBS can be difficult and confusing, if you have any questions please discuss them with your midwife.

References

Money DM, Dobson S. The prevention of early-onset neonatal group B streptococcal disease. *J Obstet Gynaecol Can* 2004; 26(9): 826-32

Schrag S, Gorwitz R, Fultz-Butts K, Schuchat A. Prevention of Perinatal Group B Streptococcal Disease. *MMWR* August 16, 2002 (51); 1-22