

Group B Streptococcus (GBS)

What is GBS?

GBS is a type of bacteria that is found in the digestive systems of healthy people. Approximately 10-35% of pregnant women will have GBS in their vaginas at the time of birth. GBS in the vagina is normal, no symptoms generally appear, and does not usually cause any health risks to the pregnant woman. Occasionally GBS can cause a urinary tract infection which needs to be treated.

What is the chance of a baby becoming infected with GBS?

In the general population, GBS disease occurs in 0.5 to 2 per 1000 live births.

How does GBS affect the newborn?

GBS is a significant cause of neonatal morbidity (poor health outcome) and mortality. In newborns, GBS is a common cause of sepsis (infection in the blood), newborn pneumonia (infection of the lung) and meningitis (infection of the fluid around the brain), with the possibility of permanent neurological damage. The mortality rate of early onset GBS infection (within the first 7 days of life) ranges between 5 to 20%.

What are the risk factors for developing Newborn GBS Disease?

- Preterm labour (less than 37 weeks)
- Rupture of membranes for greater than 18 hours
- Maternal fever in labour
- GBS bacteria found in the urine at anytime this pregnancy
- History of a previous baby that developed GBS disease

How can GBS disease in the newborn be prevented?

The current recommendation is to screen all pregnant women for GBS colonization of the vagina between 35-37 weeks. The screening is unobtrusive and includes a vaginal-rectal swab done by the woman herself. Since GBS colonization can come and go, testing within five weeks of the due date is shown to be predictive of GBS status at time of birth. There is anecdotal but not scientific evidence that taking good quality probiotics starting 3 weeks before swabbing for GBS may result in a lower chance of colonization in the vaginal area.

If the screening test is *positive*, IV antibiotics are recommended in active labour or when your water breaks. Penicillin is the antibiotic of choice, unless known penicillin allergies exist. If your water breaks before you are in labour, IV antibiotics along with induction of labour is the current standard. If the screening test is *negative*, you do not carry GBS and IV antibiotics will not be necessary.

What are the Benefits to being treated?

- 1 in 500 newborns will develop GBS disease if the mother has an unknown GBS culture and no antibiotics in labour are given.
- 1 in 200 newborns will develop GBS disease if the mother has a known positive GBS culture and no antibiotics in labour are given
- 1 in 20 newborns will develop GBS disease if the mother has a known positive GBS culture and no antibiotics are given and she has any risk factors during labour.
- 1 in 4000 newborns will develop GBS disease if the mother has a known positive GBS culture and receives one dose of antibiotics before birth
- 1 in 20 000 newborns will develop GBS disease if the mother has a known positive GBS culture and receives two doses of antibiotics before birth

What are the Risks to being treated?

- The risk of allergic reaction to penicillin is between 4 in 10 000 and 4 in 100 000
- Exposure to antibiotics in labour has been associated with increased incidence of yeast and thrush infections in moms and babies
- Widespread use of antibiotics could lead to the presence of superbugs that are antibiotic resistant
- New evidence suggests that early exposure to antibiotics may be linked to asthma in small children.

Can I still have a home birth if I am GBS positive?

Yes, administration of antibiotics can be given at home. If you are not in active labour but your water has broken and you have declined induction of labour, you may need to go to the hospital for the first doses of antibiotics until you are in active labour and it is time for your midwives to attend you at home.

Key Points

- GBS is a normal part of the flora in women's vaginas that comes and goes
- GBS infection of the newborn is a serious disease with high rates of morbidity and mortality
- Screening for GBS is recommended between 35-37 weeks
- If the screening result is positive, IV antibiotics are recommended in labour
- If antibiotics for prevention are declined, after reviewing the risks and benefits, an informed refusal sheet should be signed. If risk factors develop, discussing antibiotic treatment will be revisited
- It is important to watch the baby for signs of infection, or ill health including lethargy/listlessness, difficulty breathing and not wanting to feed