

Group B Streptococcal Infections

Group B streptococcus (GBS) is a type of bacterium that causes illness in newborn babies, pregnant women, the elderly, and adults with other chronic illnesses, such as diabetes or cancer. GBS is the most common cause of life-threatening infections in newborns.

How common is GBS disease?

GBS is the most common cause of sepsis (blood infection) and meningitis (infection of the fluid and lining surrounding the brain) in newborns. GBS is a frequent cause of newborn pneumonia. Approximately 8,000 babies in the United States get GBS disease each year; 5% - 15% of these babies die. Babies that survive, particularly those who have meningitis, may have long-term problems, such as hearing or vision loss or learning disabilities.

Does everyone who has GBS get sick?

Many people carry GBS in their bodies but do not become ill. These people are considered to be "colonized." Adults can be colonized in the bowel, genital tract, urinary tract, throat, or respiratory tract. **15% to 40% of pregnant women are colonized with GBS in the rectum or vagina.** A fetus may become colonized with GBS on the skin if the mother is colonized with GBS in the rectum or vagina; colonization occurs before or during birth.

How does GBS disease affect newborns?

Only 1% - 2% of babies who are colonized with GBS develop signs and symptoms of GBS disease. Three-fourths of the cases of GBS disease among newborns occur in the first week of life ("early-onset disease"), and most of these cases are apparent a few hours after birth.

How is GBS disease diagnosed and treated in the newborn?

GBS infections are diagnosed when the bacterium is cultured from blood or spinal fluid. Cultures take a few days to complete. GBS infections in both newborns and adults are usually treated with antibiotics given through a vein.

Can pregnant women be checked for GBS?

GBS colonization can be detected during pregnancy by a vaginal and rectal swab for special culture. Authorities suggest that cultures be done at 35-37 weeks' gestation, by swabbing both the vagina and rectum. A positive culture result means that the mother is colonized with GBS - **not that she or her baby will definitely become ill.** Colonized women should not be given oral antibiotics before labor because antibiotic treatment at this time does not prevent GBS disease in newborns.

Can GBS disease among newborns be prevented?

Most GBS disease in newborns can be prevented by giving at risk pregnant women antibiotics through the vein during labor. Pregnant women colonized with GBS should be offered antibiotics at the time of labor or membrane rupture.

Colonized women at highest risk are those with any of the following conditions:

- * fever during labor
- * rupture of membranes 18 hours or more before delivery
- * rupture of membranes or labor before 37 weeks

Because women who are colonized with GBS but do not develop any of the above complications have a relatively low risk of delivering an infant with GBS disease, the decision to take antibiotics during labor should balance risks and benefits. Penicillin is very effective at preventing GBS disease in the newborn and is generally safe. A colonized woman with none of the conditions above has the following risks:

- * 1 in 200 chance of delivering a baby with GBS disease if no antibiotics are given
- * 1 in 10 chance, or lower, of experiencing a mild allergic reaction to penicillin (such as rash)
- * 1 in 10,000 chance of developing a severe allergic reaction - anaphylaxis - to penicillin. Anaphylaxis requires emergency treatment and can be life-threatening.

Who is a higher risk for GBS disease?

Pregnant women with the following conditions are at higher risk of having a baby with GBS disease:

- * previous baby with GBS disease
- * urinary tract infection due to GBS
- * GBS colonization late in pregnancy
- * fever during labor
- * rupture of membranes 18 hours or more before delivery
- * rupture of membranes or labor before 37 weeks

Midwifery Care Associates follows guidelines established by the Center for Disease Control (CDC), which include a routine vaginal/rectal culture at 36 weeks on all patients and treating at-risk mothers during labor with IV antibiotics.