

GROUP B STREPTOCOCCAL DISEASE (GBS)



BASIC INFORMATION

DESCRIPTION

Group B streptococcal disease is a bacterial illness that occurs in newborn babies, pregnant women, the elderly, and adults with other illnesses (e.g., diabetes, liver disease). GBS is the most common cause of life-threatening infections in newborns. It 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 and is more common than other newborn problems such as rubella, congenital syphilis, and spina bifida.

FREQUENT SIGNS AND SYMPTOMS

- Many people carry GBS in their bodies but do not become ill or have symptoms. They are considered to be "carriers."
- Newborns early-onset disease—most of the cases of GBS disease occur in the first week of life. Many of these cases are apparent a few hours after birth (infants who "don't look quite right"). Sepsis, pneumonia, and meningitis are the most common problems.
- Late-onset disease (very rare)—GBS disease may also develop in infants 1 week to several months after birth. Meningitis is more common with late-onset GBS disease. Only about half of late-onset GBS disease among newborns come from a mother who is a GBS carrier; the source of infection for others with late-onset GBS disease is unknown.

CAUSES

Adults can carry GBS in the bowel, vagina, bladder, or throat. One of every four or five pregnant women carries GBS in the rectum or vagina. A fetus may come in contact with GBS before or during birth if the mother carries GBS in the rectum or vagina. People who carry GBS typically do so temporarily. They do not become lifelong carriers of the bacteria.

RISK INCREASES WITH

- 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.
 - Fever during labor.
 - Rupture of membranes 18 hours or more before delivery.
 - Labor or rupture of membranes before 37 weeks.
- Premature babies are more susceptible to GBS infection.

PREVENTIVE MEASURES

- There are two recommendations for prevention of neonatal GBS infection: 1) screening of all pregnant women or 2) at risk method where antibiotics are given during labor to women with risk factors.
- A carrier of GBS can be detected during pregnancy by taking a swab of both the vagina and rectum for a culture; this is done late in pregnancy (35-37 weeks' gestation). If collected earlier, the results do not accurately predict whether a mother will have GBS at delivery. A positive culture result means that the mother carries GBS. It does not indicate that she or her baby will definitely become ill.

- Women who carry GBS should not be given oral antibiotics before labor because antibiotic treatment at this time does not prevent GBS disease in newborns. However, if GBS is found in the urine, it should be treated at the time of diagnosis.

- Carriage of GBS in the vagina or rectum is treated at the time of labor and delivery. Antibiotics can be effective in preventing the spread of GBS from mother to newborn. Treatment is based on the maternal risk factors.

EXPECTED OUTCOME

Most GBS disease in newborns can be prevented by giving certain pregnant women antibiotics during labor.

POSSIBLE COMPLICATIONS

Although early diagnosis is not 100% preventative, it can help decrease the risk of some of the more devastating complications. In spite of testing and antibiotic treatment, some babies still get GBS disease. Neurologic problems may include sight or hearing loss and mental retardation or death.



TREATMENT

GENERAL MEASURES

- GBS disease is diagnosed when the bacterium is grown from cultures of body fluids. Cultures take a few days to complete.
- A pregnant woman who previously had a baby with GBS disease, or who has a urinary tract infection caused by GBS, should receive antibiotics during labor.
- Antibiotics will be recommended to other GBS carriers at high risk: fever during labor, rupture of membranes (water breaking) 18 hours or more before delivery, labor or rupture of membranes before 37 weeks.
- Women who carry GBS but do not have high risk factors have a relatively low risk of delivering an infant with GBS disease. The decision to take antibiotics during labor should balance risks and benefits. A GBS carrier with none of the conditions above has the following risks: 1 in 200 chance of delivering a baby with GBS disease if antibiotics are not given; 1 in 4000 chance of delivering a baby with GBS disease if 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.

MEDICATION

Antibiotics (e.g., penicillin or ampicillin) may be given intravenously (through a vein) to the mother during labor or to the newborn if infection develops.

ACTIVITY

Normally, there are no restrictions.

DIET

No special diet.



NOTIFY OUR OFFICE IF

You are pregnant and have additional questions about GBS.