

Prevention of Neonatal Group B Streptococcus Infection

What is Group B Streptococcus?

Group B Streptococcus (GBS) is a type of bacteria which normally lives in the intestine, urinary and reproductive tracts of men and women. It can be found in 10-30% of pregnant women's vagina or rectum. Most pregnant women who are colonised with GBS have no symptoms or health effects. A small number may develop urinary tract infection caused by GBS. It is not a sexually transmitted disease.

How does GBS infection affect the baby?

The most serious health effect of GBS is that a woman colonised with GBS late in her pregnancy can pass it to her baby. It is the commonest cause of severe early onset infection in newborn infants with high rate of illness and death (5-10%). In Hong Kong, the incidence of early onset GBS infection in newborn is around 1.0 per 1000 births. Baby may have early or late-onset of GBS infection.

For early-onset GBS infection, the signs and symptoms usually occur within hours of delivery. These include:

- Breathing problems, heart and blood pressure instability
- Gastrointestinal and kidney's problems
- Lung infection, blood infection and meningitis are the most common

For late-onset GBS infection, the signs and symptoms occur within a week or a few months of delivery. Meningitis is the most common symptom. However, late-onset GBS is not as common as early-onset.

How can I find out if I have GBS?

The Hospital Authority antenatal clinic and Maternal and Child Health Centre of the Department of Health will provide GBS screening for all eligible and pregnant women. This screening is done between 35 and 37 week of pregnancy. **The test involves a swab of both the vagina and the rectum.** The procedure is quick and should not be painful. The sample is then taken to the laboratory where a culture is analysed for any presence of GBS. A woman may test positive at certain times and not at others as the bacteria can be present in your body on and off. Therefore it is preferred to perform the test between 35 to 37 weeks, which is the time closest to your delivery.

Non-eligible pregnant women can undergo screening either in a HA clinic (with extra charge), in private sector or in Mainland China.

What if I test positive for GBS? How can my baby be protected from infection?

Not every baby who is born to a mother with a positive test for GBS will become ill. Around one of every 100 to 200 babies whose mothers carry GBS will have signs and symptoms of infection.

If you are test positive for GBS, we recommend giving you intravenous injection of antibiotics during delivery which can greatly reduce the chance of your baby becoming sick.

For GBS carriers, taking antibiotics before labour starts is not an effective way to get rid of the bacteria. As they naturally live in the intestine, the bacteria can come back after the antibiotic treatment. The most effective way to prevent baby's infection is to give the antibiotic during labour.

Is GBS screening recommended for every pregnant woman?

In certain conditions, the baby would have a higher risk of infection. These include:

- Previous baby affected by GBS infection
- Mother has urinary tract infection due to GBS during pregnancy
- GBS colonisation before 35 weeks

Under these conditions, we recommend injection of antibiotic during labour and screening is not necessary.

Is there any other condition that I need antibiotic injection for prevention of GBS infection in my baby?

In case your GBS status is unknown and if any of the following condition is present, we recommend you to have antibiotic during labour. The conditions include:

- Gestation less than 37 weeks
- Maternal fever with temperature equal to or higher than 38°C
- Water broken for more than 18 hours

Would the antibiotic injection cause any side effect for me?

We would check against your allergic history before giving you the appropriate antibiotic. You are reminded to report any signs of allergy such as skin rash, swelling or difficulty in breathing. The chance of severe allergic reaction causing life-threatening situation is very low.

Can my baby's infection be totally prevented if I receive antibiotic during labour?

Although antibiotic treatment during labour helps to prevent early-onset GBS infection, it is not 100% and does not always prevent late-onset GBS infection. Babies may pick up GBS from people they come in contact with or through other means.

Does my baby need treatment after birth if I am a GBS carrier?

Your baby will be under the paediatrician's care after birth. Whether the baby needs any antibiotic treatment depends on a number of factors, including:

- Any sign of infection of the baby?
- Is the baby born at term?
- How much antibiotics you have received before birth of the baby?

Paediatrician will decide individually base on the investigations or treatment that the baby needs.

(This leaflet is prepared by the Department of Health and the Hospital Authority)