



本署檔號 OUR REF: DH FHS/7040/6
來函檔號 YOUR REF:
電 話 TEL : 2961 8855
圖文傳真 FAX : 2574 8977

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Dear Doctor,

Universal Prenatal Screening for Group B Streptococcus

I would like to inform you that the Hospital Authority (HA) and the Department of Health (DH) have jointly launched a screening programme for Group B Streptococcus (GBS) for pregnant women attending HA and DH for antenatal services with effect from January 2012. GBS is the commonest cause of severe early onset infection in newborn infants with a high rate of morbidity and mortality. Of GBS meningitis, about 50% can have neurodevelopmental impairment. Colonisation of GBS in the maternal gastrointestinal and/or genital tracts is strongly associated with early neonatal infection. In Hong Kong, the incidence of early onset GBS (EOGBS) infection in newborn is around 1.0 per 1000 births. Intrapartum antibiotic administration effectively decreases the prevalence of EOGBS disease. Overseas experience has shown that the incidence of EOGBS drops dramatically with the introduction of universal swab-based prevention strategy.

Under the HA/DH screening protocol, pregnant women who attend either HA's obstetric clinics or DH's Maternal & Child Health Centres would be offered screening for GBS between 35-37 weeks' gestation. The screening test consists of taking both low vaginal and rectal swabs. Women who are screened positive for GBS will be given intrapartum prophylactic antibiotics intravenously in HA hospitals. For women who have urinary tract infection due to GBS during current pregnancy, have GBS colonization before 35 weeks, or have a previous baby affected by GBS infection, screening is not needed as they would directly receive prophylactic intrapartum antibiotics. Babies born to all these mothers will be observed for signs of infection before discharge.

Attached please find the information sheet on prevention of neonatal Group B Streptococcus infection issued by HA and DH for your information.

Thank you for your attention.

Yours sincerely,

(Dr Christine Wong)
for Director of Health

c.c. Hospital Authority



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 colonized 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 colonized 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, the signs and symptoms usually occur within hours of delivery. These include:

- Breathing problems, heart and blood pressure instability
- Gastrointestinal and kidneys problems
- Lung infection, blood infection and meningitis are the most common.

For late-onset GBS, 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?

Screening for GBS 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 analyzed 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.

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

Not every baby who is born to a mother who had 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 to prevent the baby's infection. Taking antibiotics greatly reduces the chances 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 every pregnant woman recommended having the GBS screening?

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 colonization before 35 weeks

Under these conditions, we recommend for 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, 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 there be any side effect to me for the antibiotic injection?

We would check against your allergic history before we give 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.

If I receive antibiotic during labour, can my baby's infection be totally prevented?

Although antibiotic treatment during labour helps 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 the birth of the baby?

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