

# Group Beta Streptococcus (GBS)

## What is GBS?

GBS is a common type of bacteria present in about 30% of adults. This bacteria is found in the rectum, bladder, and also in women's vaginas. During pregnancy we become more concerned about the colonization of GBS because it can be passed on to the newborn. It is estimated that between 40-70% of GBS positive women will pass this bacteria onto their babies during birth. While the majority of babies are not affected by the bacteria, a very small number (1-2%) of these babies will go on to develop an infection. GBS infected babies may have mild to severe problems which can affect their blood, brains, lungs, or spinal cord. Therefore parents should be informed of this disease, consider GBS screening, and be aware of the recommended course of treatment and knowledgeable in identifying GBS infection in a newborn.

The current standard of care involves determining a woman's GBS status:

- Between 35-37 weeks gestation a screening test can be used to identifying women who are colonized with GBS. (It is possible to have a negative test result and still be GBS positive.)
- To culture for GBS a swab (similar to a Q-tip) is inserted into the lower vagina and rectum and then is placed in a special medium and sent to the lab.
- A women with GBS in her urine this pregnancy, or who has delivered an infant with GBS disease is recommended to be considered GBS positive.

Women who are determined to be GBS positive will be recommended to have antibiotics.

- During active labour intravenous antibiotics are given to GBS positive women usually every 4 hours.
- Although an anaphylactic reaction to antibiotics is rare, women planning a home birth must go to the hospital for their first dose of antibiotics.

If a women's GBS status is not determined, treatment with IV antibiotics is strongly recommended if there is:

- Preterm labour (less than 37 weeks),
- Ruptured membranes for longer than 18 hours,
- Maternal fever during labour (temperature greater than 38 C orally or 100.4 F),
- Previous delivery of a newborn with GBS or evidence of GBS urinary infection.

## **Facts Associated with GBS**

### ***Women***

- GBS can trigger premature labour and has also been linked with maternal infection. Including infection of the urinary tract, amnionitis (infection of the bag of waters) endometritis (infection of the uterus).
- Women who carry GBS but do not develop a fever during labour > 38 C or 100.4 F, have ruptured membranes over 18 hours or have labour or ruptured membranes before 37 weeks, have a relatively low risk of delivering an infant with GBS disease.
- With antibiotic therapy a mild allergic reaction to penicillin (such as rash) occurs in 1 out of 10 women.
- There is a 1 in 10,000 chance of developing a severe allergic reaction (anaphylaxis). This is a life-threatening condition which requires emergency treatment.

### ***Newborn***

- The likelihood of GBS disease of the newborn is about 2/1000 live births.
- The likelihood of a GBS positive mother delivering a baby with GBS disease is approximately 1 out of every 100-200 births if no antibiotics are given. This is reduced to 1:4000 if antibiotics are given.
- Preterm infants and infants weighing less than 2500g have a much higher infection rate.

- Babies that survive a serious infection with GBS, particularly those who have meningitis, may have long-term problems, such as hearing or vision loss or learning disabilities. Approximately 15-20% of GBS infected babies will not survive.

## **Alternatives and their Risks/Benefits**

Herbal immune enhancing/antimicrobial formulas (e.g.: Congaplex by Standard Brands or EHB by NF Formulas, vaginal suppositories with tea tree oil or colloidal silver) are available. Some have anecdotal evidence of clearing GBS colonization, but no scientific studies are available. Beware of formulas containing Goldenseal as it can induce preterm labour

## **Signs of GBS infection in the Newborn**

GBS is usually present as blood poisoning, pneumonia, or meningitis. Signs of GBS infection usually become apparent within the first two days of life, but may occur within hours of birth. Signs of an infection in a newborn can be difficult to determine. They include lethargy, poor feeding, high/low temperatures, irritability, high/low breathing rates, and breathing difficulties as seen by flaring of the nostril, laboured breathing, grunting noises, and/or a blue appearance.

## **Informed Consent or Informed Refusal for Antenatal GBS Testing**

I, \_\_\_\_\_,

CONSENT \_\_\_\_\_

DO NOT CONSENT \_\_\_\_\_

to testing for GBS at this time.

I understand that this is a screening test only, that no method of screening and/or prophylactic treatment is 100% effective in preventing GBS. I also understand that GBS screening and prophylactic treatment can reduce the incidence of GBS disease. I have had my questions answered and can make an informed decision regarding GBS testing.

Client Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Midwife Signature: \_\_\_\_\_

Date: \_\_\_\_\_