Group B Strep Support

Royal College of Obstetricians & Gynaecologists

Group B Streptococcus (GBS) in pregnancy and newborn babies

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Group B Streptococcus (GBS) Infection in Pregnancy

This information is for you if you (or a friend or relative) are expecting a baby, planning to become pregnant or have recently had a baby. It tells you about group B Streptococcus (GBS) infection in babies in the first week after birth (known as early-onset GBS) and provides links to further information about late-onset GBS infection. It includes the current UK recommendations for preventing GBS infection in newborn babies.

A glossary of all medical terms used in this information is available on the RCOG website at: www.rcog.org.uk/en/patients/medical-terms

The RCOG and GBSS are proud to work together to improve the prevention of group B Strep infection in newborn babies. Both organisations agree that, when these recommendations are fully implemented across the UK, the rate of avoidable group B Strep infection in newborn babies will fall.

Key points

- Group B Streptococcus (GBS) is one of the many bacteria that normally live in our bodies and which usually cause no harm
- Screening for GBS is not routinely offered to all pregnant women in the UK
- If you carry GBS, most of the time your baby will be born safely and will not develop an infection. However, it can rarely cause serious infection such as sepsis, pneumonia or meningitis
- Most early-onset GBS infections are preventable
- If GBS is found in your urine, vagina or rectum (bowel) during your current pregnancy, or if you have previously had a baby affected by GBS infection, you should be offered antibiotics in labour to reduce the small risk of this infection to your baby.
- The risk of your baby becoming unwell with GBS infection is increased if your baby is born preterm, if you have a temperature while you are in labour, or if your waters break before you go into labour
- If your newborn baby develops signs of GBS infection, they should be treated with antibiotics straight away

What is GBS?

GBS is a common bacterium (bug) which is carried in the vagina and rectum of 2 - 4 in 10 women (20 – 40%) in the UK. GBS is not a sexually transmitted disease and most women carrying GBS will have no symptoms. Carrying GBS is not harmful to you, but it can affect your baby around the time of birth. GBS can occasionally cause serious infection in newborn babies and, very rarely, during pregnancy and before labour.

How is GBS found?

GBS is sometimes found during pregnancy when you have vaginal or rectal swabs or a urine test.

In the UK, the NHS does not routinely offer all pregnant women screening for GBS. For more information about available tests, visit the Group B Strep Support (GBSS) website: www.gbss.org.uk/TestingforGBS.

What could GBS mean for my baby?

Many babies come into contact with GBS during labour or around birth. The vast majority of these babies will not become ill. However, if you carry GBS, there is a small chance that your baby will develop GBS infection and become seriously ill, or even die.

Around 1 in every 1750 newborn babies in the UK and Ireland is diagnosed with early-onset GBS infection. The infections that GBS most commonly causes in newborn babies are sepsis (infection of the blood), pneumonia (infection in the lungs), and meningitis (infection of the fluid and lining around the brain).

Although GBS infection can make your baby very unwell, with prompt treatment most babies will recover fully. However, of the babies who develop early-onset GBS infection, 1 in 19 (5.2%) will die and, of the survivors, 1 in 14 (7.4%) will have a long-term disability.

On average in the UK, every month

- 43 babies develop early-onset GBS infection
- 38 babies make a full recovery
- 3 babies survive with long-term physical or mental disabilities
- 2 babies die from their early-onset GBS infection

What puts my baby at higher risk of developing GBS infection?

Infection is more likely to happen if:

- your baby is born preterm (before 37 completed weeks of pregnancy) – the earlier your baby is born, the greater the risk
- you have previously had a baby affected by GBS infection
- you have had a high temperature or other signs of infection during labour
- you have had any positive urine or swab test for GBS in this pregnancy
- your waters have broken more than 24 hours before your baby is born

How can the risk to my baby be reduced?

- A urine infection caused by GBS should be treated with antibiotic tablets straight away and you should also be offered antibiotics through a drip during labour.
- You should be offered antibiotics through a drip during labour if you have had a GBS-positive swab or urine test from an NHS or other accredited laboratory (see the GBSS website for further information: www.gbss.org.uk/TestingforGBS).
- If you have previously had a baby who was diagnosed with GBS infection, you should be offered antibiotics through a drip when you are in labour.
- If your waters break after 37 weeks of your pregnancy and you are known to carry GBS, you will be offered induction of labour straight away. This is to reduce the time that your baby is exposed to GBS before birth. You should also be offered antibiotics through a drip.
- Even if you are not known to carry GBS, if you develop any signs of infection in labour, you will be offered antibiotics through a drip that will treat a wide range of infections including GBS.
- If your labour starts before 37 weeks of your pregnancy, your healthcare professional will recommend that you have antibiotics through a drip even if you are not known to carry GBS

What are my options for where I can have my baby?

You should discuss your planned place of birth with your healthcare professional during pregnancy to make sure that you can receive antibiotics as required in labour. If you choose to have antibiotics, they will be given through a drip and it may not always be possible to arrange this at home or in some midwifery-led units.

As soon as you go into labour or your waters break, contact your healthcare professional as it is important that you have antibiotics as soon as possible. You should always let your healthcare professional know if you have previously had a baby who had GBS infection or if you have tested positive for GBS in this pregnancy.

If GBS has been found, when should I have antibiotics?

If you are found to carry GBS in your vagina or rectum, treating you with antibiotics *before* your labour begins does not reduce the chance of your baby developing GBS infection. You do not need antibiotic treatment until labour starts, when you will be offered antibiotics through a drip to reduce the chance of your baby being infected. These antibiotics reduce the risk of your baby developing a GBS infection in their first week of life from around 1 in 400 to 1 in 4000.

If GBS is found in your urine then you will need antibiotics as soon as it is diagnosed to treat your urinary tract infection; you will also be offered antibiotics through a drip during labour to prevent GBS infection in your baby.

There are other situations where you will be offered antibiotics but these are not specifically related to GBS infection:

- If your waters break preterm (before 37 weeks) but you are not in labour, you may be offered a course of antibiotics. See the National Institute of Health and Care Excellence (NICE) guidance NG25 on *Preterm Labour and Birth*: www.nice.org.uk/guidance/ng25/ifp/chapter/If-your-waters-break-early.
- If you are having a planned caesarean section and you carry GBS, you do not need antibiotics to prevent GBS infection in your baby unless labour has started or your waters have broken. All women having a caesarean section will be offered antibiotics at the time of the operation to reduce the risk of a wide variety of infections.

If I had GBS in a previous pregnancy, should I be given antibiotics during labour?

- If a previous baby was affected with GBS infection then you should be offered antibiotics during labour in all following pregnancies, as there is an increased risk that a future baby may also be affected.
- If however, GBS was found in a previous pregnancy and your baby was unaffected, then there is a 1 in 2 (50%) chance that you will be carrying it again in this pregnancy. To help you choose whether you would like to have antibiotics in labour, you can have a specific swab test (known as the enriched culture medium or ECM test) to see whether you are carrying GBS when you are 35-37 weeks pregnant. If the result shows that:
    - you are still carrying GBS at this stage of pregnancy then the risk of your baby developing early-onset GBS infection is increased to around 1 in 400 and you will be offered antibiotics in labour.
    - you are not carrying GBS at this stage of pregnancy, then the risk of your baby developing early-onset GBS infection is much lower (1 in 5000) and you may choose not to have antibiotics.

What will my treatment during labour involve?

If you have been offered antibiotics to prevent GBS infection in your baby, these should be started as soon as possible after your labour begins, or after your waters have broken. They will be given through a drip and continued at regular intervals (usually 4 hourly) until your baby is born.

You should still be able to move around freely during labour and this should not stop you from having a water birth.

If your waters break before labour, your healthcare professional will talk to you about when you will need antibiotics and about the best time for your baby to be born. This will depend on your individual circumstances and on how many weeks pregnant you are.

The antibiotic that you will be offered to prevent GBS infection in your baby is usually penicillin. If you are allergic to penicillin then you will be offered a suitable alternative.

Can antibiotics in labour cause any harm?

Some women may experience temporary side effects such as feeling sick or having diarrhoea. Women can be allergic to certain antibiotics and in rare cases the reaction may be severe and life-threatening (anaphylaxis). Tell your healthcare professional if you know that you are allergic to penicillin or any other medications.

Your healthcare professional should discuss with you the benefits and risks of taking antibiotics in labour to prevent early-onset GBS infection in your baby.

If you choose not to have antibiotics in labour then your baby will be monitored closely for 12 hours after birth as they are at increased risk of developing early-onset GBS infection.

How will my baby be monitored after birth?

If your baby is born at full term (after 37 completed weeks) and you received antibiotics through a drip in labour at least 4 hours before giving birth then your baby does not need special monitoring after birth.

If your baby is felt to be at higher risk of GBS infection and you did not get antibiotics through a drip at least 4 hours before giving birth then your baby will be monitored closely for signs of infection for at least 12 hours. This will include assessing your baby's general wellbeing, heart rate, temperature, breathing and feeding.

If you have previously had a baby affected by GBS infection then your baby will be monitored for 12 hours even if you had antibiotics through a drip in labour.

The chance of your baby developing GBS infection after 12 hours is very low and neither you nor your baby will need antibiotics after this time unless you or your baby becomes ill.

What are the signs of GBS infection in my baby?

Most babies who develop GBS infection become unwell in the first week of life (which is known as early-onset GBS infection), usually within 12-24 hours of birth. Although less common, late-onset GBS infection can affect your baby up until they are three months old. Having antibiotics during labour does not prevent late-onset GBS. More information on late-onset GBS infection is available here: www.gbss.org.uk/infection.

Babies with early-onset GBS infection may show the following signs:

- grunting, noisy breathing, moaning, seeming to be working hard to breathe when you look at their chest or tummy or not breathing at all
- be very sleepy and/or unresponsive
- be crying inconsolably
- be unusually floppy
- not feeding well or not keeping milk down
- have a high or low temperature and/or their skin feels too hot or cold
- have changes in their skin colour (including blotchy skin)
- have an abnormally fast or slow heart rate or breathing rate
- have low blood pressure *
- have low blood sugar *

* Identified by tests done in hospital

If you notice any of these signs or are worried about your baby, you should urgently contact your healthcare professional and also mention GBS. If your baby has GBS infection, early diagnosis and treatment is important as delay could be very serious or even fatal.

What tests and treatments are available for my baby?

If it is thought that your newborn baby has an infection, tests will be done to see whether GBS is the cause. This may involve taking a sample of your baby's blood, or a sample of fluid from around your baby's spinal cord (a lumbar puncture). This will be discussed fully with you before the tests are done.

Babies with signs of GBS infection or babies who are suspected to have the infection should be treated with antibiotics as soon as possible. Antibiotics can be life-saving when given to babies with suspected infection. Treatment will be stopped if there is no sign of infection after at least 36 hours, and all the tests are negative.

Can I still breastfeed?

It is safe to breastfeed your new baby. Breastfeeding has not been shown to increase the risk of GBS infection, and it offers many benefits to both you and your baby.

Why aren't all women tested for GBS during pregnancy in the UK?

The UK National Screening Committee does not recommend testing all pregnant women for the presence of GBS using vaginal and rectal swabs. This is because:

- many women carry the GBS bacteria and, in the majority of cases, their babies are born safely and do not develop an infection.
- screening all women late in pregnancy cannot accurately predict which babies will develop GBS infection.
- no screening test is entirely accurate: a negative swab test does not guarantee that you do not carry GBS.
- many babies who are severely affected by GBS infection are born preterm, before the suggested time for screening (35-37 weeks)
- giving antibiotics to all women who carry GBS would mean that a very large number of women would receive treatment they do not need.

Further information

Group B Strep Support (GBSS): www.gbss.org.uk

RCOG Green-top Guideline No. 36, *Prevention of Early-onset Neonatal Group B Streptococcal Disease*: www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36/

NICE clinical guideline CG190, *Intrapartum Care for Healthy Women and Babies*: www.nice.org.uk/guidance/cg190

NICE clinical guideline CG149, *Neonatal infection (Early Onset): Antibiotics for Prevention and Treatment*: www.nice.org.uk/guidance/CG149

UK National Screening Committee, recommendation on GBS screening in pregnancy: https://legacyscreening.phe.org.uk/groupbstreptococcus

A full list of useful organisations (including the above) is available on the RCOG website at: www.rcog.org.uk/en/patients/other-sources-of-help

Making a Choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.

Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85

AQuA Advancing Quality Alliance

Right Care Shared Decision Making Programme

NHS

https://www.aquanw.nhs.uk/SDM

Group B Strep Support

Group B Strep Support is the UK charity working to stop group B Strep (GBS) infection in babies. We:

- Raise awareness of group B Strep among the public and support affected families
- Provide information to health professionals about how to prevent, identify and treat GBS infection in babies
- Campaign for improvements to UK prevention strategies
- Support research into preventing GBS infection in babies

Supported by a respected medical advisory panel, GBSS provides free information materials for expectant and new parents affected by group B Strep and to NHS health professionals UK-wide.

www.gbss.org.uk

Registered charity: 1112065

Royal College of Obstetricians & Gynaecologists

RCOG works to improve health care for women everywhere, by setting standards for clinical practice, providing doctors with training and lifelong learning, and advocating for women's health care worldwide. We:

- Develop clinical guidelines and information for women
- Support education, training and lifelong learning for doctors specialising in women's health
- Carry out research, audit and quality improvement projects to improve women's health care
- Work with partners to support policy development within women's health care

www.rcog.org.uk

Registered charity: 213280

Sources and acknowledgements

This information has been developed by the RCOG Patient Information Committee in collaboration with Group B Strep Support (GBSS). It is based on the RCOG Green-top Guideline No. 36, *Prevention of Early-onset Neonatal Group B Streptococcal Disease* published in September 2017. The Guideline contains a full list of the sources of evidence used. You can find it online at: www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36.

This information has been reviewed before publication by women attending clinics in Wrexham and London, by the RCOG Women's Network and the RCOG Women's Voices Involvement Panel, and by Group B Strep Support and their networks.

Contact us at GBSS for more information and additional copies of this leaflet.

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