## Plain language summary

# Prevention of Early-Onset Group B Streptococcal Disease in Term Infants

## Who is this summary for?

This summary is for people who are, or may be, impacted by Group B Streptococcus (GBS) in pregnancy, labour or after their baby's birth at full term (at or after 37 weeks of pregnancy). This may include women who have GBS identified on laboratory tests, their support partners or their family as well as healthcare professionals. It may also include women with a previous history of GBS and women who are unaware of their GBS status.

## What is this summary about?

The National Women and Infants Health Programme have developed a number of clinical guidelines. One of these is a National Guideline for Prevention of Early-Onset Group B Streptococcal Disease in Term Infants (less than 7 days of age). This plain language summary will describe the key points and important take home messages from the Guideline.

## What is GBS?

GBS is a bacteria carried in the bodies of about 1 in 5 adults, usually it is harmless. However, it can affect a baby around the time of birth and unfortunately GBS is the leading cause of early onset infection in newborn infants. While most babies born to women who carry GBS do not develop infection, around 1 in every 1750 newborn babies in the UK and Ireland is diagnosed with Early Onset GBS (EOGBS) infection. This can present as sepsis (blood stream infection), pneumonia (lung infection) and meningitis (infection of the fluid and lining of the brain). With early detection and treatment most babies recover well, but it can cause disability and even death.

The purpose of this Guideline is to outline practices (including offering screening and offering antibiotics in labour to women at high risk of GBS) that can reduce the risk of the baby becoming unwell.

**Late onset GBS** (LOGBS) infection can affect babies up until they are about 3 months old. The risk of this is not reduced by receiving antibiotics in labour and if there are concerns about any infection in the baby at any time advice should be sought from the healthcare team https://www2.hse.ie/babies-children/parenting-advice/caring-for-a-child/baby-child-seriously-unwell/

Over the next number of years, it is likely that a vaccine to prevent GBS will be available for pregnant women, or women hoping to become pregnant. This will be very beneficial, as it should reduce both early and late onset GBS disease as well as other consequences of GBS infection.

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/

## What tests will be offered for GBS during pregnancy?

Usually, the first time in pregnancy that GBS might be talked about is at the booking visit when a urine sample is examined to rule out a urinary tract infection (UTI) that is not causing symptoms ('asymptomatic bacteriuria'). If that is present and identified as being caused by GBS, the pregnant woman will be informed.

Depending on how many GBS bacteria are present on the sample a course of antibiotics may be needed at that time. It will also be explained that antibiotics in labour will be offered to prevent transmission of GBS to the baby. This course of antibiotics is called Intrapartum Antibiotic Prophylaxis (IAP).

If a UTI is caused by GBS at any stage in pregnancy IAP will also be offered.

If a vaginal swab is taken at any stage in pregnancy for any reason and GBS is identified the pregnant woman will also be offered IAP.

If a swab test for GBS is done, the sample is taken from inside the vagina and back passage. This is usually taken, with the woman's permission, by a midwife or doctor but the woman can take it herself, if preferred.

## What if a woman has GBS before the pregnancy?

A woman's individual circumstances should be discussed with their Midwife or Doctor, but in general the woman will be offered either a repeat swab towards the end of this pregnancy or IAP in labour. If a previous baby was affected by GBS, it is generally routine to offer IAP.

## What puts the baby at higher risk for GBS infection?

- If the baby is born preterm (less than 37 weeks)
- If a previous baby had a GBS infection
- If there is a positive urine or swab test for GBS in this pregnancy
- If there is a high temperature in labour (above 38 degrees centigrade)
- If waters have broken more than 18 hours before the baby's birth

## What are the options for screening for GBS?

Many countries offer screening for GBS carriage to all women towards the end of pregnancy.

**The Guideline describes 3 pathways for screening for GBS, and recommends that every maternity unit should choose, implement and study the impact of one of these pathways.**

There is a large study comparing these pathways underway in the UK at the moment, and the results of that study may change screening for GBS in Ireland in the coming years.

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/

The 3 recommended pathways are as follows:

- **Option 1:** risk factor-based screening – offer IAP for women with specific risk factors as outlined above (previous baby with GBS, GBS detected on swab or urine, rupture of membranes more than 18 hours, high temperature in labour).
- **Option 2:** offer a rapid screening test for GBS to women at the start of induction of labour or if their waters have broken before labour starts. This is a very sensitive test for GBS, and the result will be discussed with the woman with a specific plan made for her care based on the results and any other risk factors. For example, if the waters have broken before labour has started and the GBS test is positive the woman will be offered an oxytocin drip to induce labour.
- **Option 3:** offer screening via a vaginal and rectal (back passage) swab to all women towards the end of pregnancy (35-37 weeks). The result will be discussed with the woman and a specific plan made for her care based on the results and any other risk factors.

## What antibiotics are given in labour to prevent GBS disease and when are they given?

If antibiotics are recommended for the prevention of GBS disease these will usually be offered once labour begins, or when the waters break. These antibiotics are given via a drip into the veins in the arm, and the course of antibiotics continues every few hours until the baby is born. Unless the woman has a high temperature, the antibiotics can stop once the baby is born.

Penicillin based antibiotics are used. It is important that the woman tells her midwife or doctor if she is allergic to penicillin, as a swab test for GBS can be offered between 35 and 37 weeks of pregnancy to help identify the most suitable antibiotic (not penicillin) if GBS is present.

## Are antibiotics needed if a caesarean birth is planned?

Every woman having a caesarean birth is offered antibiotics to prevent wound infection. Even if the woman is known to carry GBS she will usually not need antibiotics for this if her caesarean section is happening before labour has started and before her waters have broken. An exception to this may be if the woman previously had a baby who was sick with GBS disease. Any concerns the woman may have about her own history should be discussed with her Midwife or Doctor.

## Can a woman with GBS still breastfeed?

The evidence encourages safety of breastfeeding, even if the woman is known to carry GBS. Additionally, the intravenous antibiotics that may be given during labour to protect the newborn baby from GBS infection are safe for breastfeeding mothers.

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/

## What monitoring will be needed for the baby after birth?

The Guideline sets out some care options in this regard and the recommendations for the baby will be discussed with the woman, depending on her particular history and the baby's wellbeing.

If the woman was known to have GBS in pregnancy, she received a full course of antibiotics in labour and the baby is well at birth, the baby will usually just be monitored on the postnatal ward.

According to the Guideline, some babies will be offered further tests and antibiotics. If the baby shows no signs of infection they can usually be cared for on the postnatal ward, and the midwife and neonatology team will explain the exact plan of care for the baby to each woman.

## What are the signs of infection in a baby?

Signs of infection include fast breathing or a fast heart rate, irregularities in temperature and blood levels of oxygen or glucose.

Other signs include the following:

- Grunting or noisy breathing, working hard to breathe, or not breathing
- Being very floppy, sleepy or unresponsive
- Crying inconsolably
- Seizures
- Not feeding well or keeping milk down
- Changes in skin colour
- Early onset jaundice

### Information

**The following links provide further advice**

**https://www.hse.ie/eng/about/who/cspd/ncps/sepsis/resources/patient-information-paediatric-leaflet.pdf**

**https://www2.hse.ie/babies-children/parenting-advice/caring-for-a-child/baby-child-seriously-unwell/**

**https://gbss.org.uk/info-support/group-b-strep-infection/**

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/