

The enemy within

July is Strep B Awareness Month. Just because we're all focused on one dangerous infection, doesn't mean we can forget about another says **Jane Plumb** co-founder of Group B Strep Support

Group B Streptococcus (group B Strep, Strep B or GBS) is a common body commensal found in the lower genital tract of 20-25% of women in the UK (Daniels et al., 2011). Rarely causing harm to the carrier, GBS is, however, an important cause of severe infection in newborn babies, typically presenting as sepsis, meningitis and pneumonia. Group B Strep is the most common cause of meningitis in babies under three months old (Okike et al., 2014) and is an acknowledged cause of stillbirth (Seale et al., 2017).

Approximately 60% of GBS infection in babies is of early onset, presenting in the first six days of life (and usually within the first 24 hours), following transmission from the mother during or around birth. Late-onset GBS (LOGBS) infection occurs between seven days and three months old (average 28 days), more often causing meningitis. The source of the bacteria causing LOGBS infection may be the mother or from others with whom the baby is in contact.

Although not common, group B Strep infection can be devastating for young

babies. In 2014/5 the rate in the UK and Republic of Ireland (O'Sullivan et al., 2018) was 0.57 cases per 1,000 live births for EOGBS infection (0.37/1,000 for LOGBS infection), up by 19% (54% for LOGBS infection) since the equivalent 2000/1 study.

No effective prevention strategies exist for LOGBS infection or stillbirth caused

GBS can be devastating for babies

by GBS, but IV antibiotics (typically penicillin) given in labour to women whose babies are at raised risk of EOGBS infection are highly effective.

The effectiveness of the antibiotics given four or more hours before birth is high among term (91%) and preterm (86%) babies (Fairlie et al, 2017).

Most high-income countries offer IV antibiotics in labour to women based

on the results of universal antenatal testing programmes (vaginal and rectal swabs are taken at around 35/36-37 weeks of pregnancy and cultured using enriched media; Le Doare et al., 2017). The remaining high-income countries, including the UK, use a risk-based prevention strategy (Hughes et al., 2017), where women with certain risk factors or clinical indications (including a positive GBS test result) are offered the IV antibiotics in labour.

A recently published meta-analysis (Hasperhoven, 2020) reported that test-based prevention led to fewer EOGBS infections than risk-based prevention, without significant increases in overall antibiotic use. The UK National Screening Committee continues to recommend against universal antenatal testing for GBS, arguing that this would do more harm than good.

UK guidelines

Since 2017, the Royal College of Obstetricians & Gynaecologists (RCOG) has recommended that all pregnant women should be provided with an information leaflet, and that those with key risk factors should be offered IV



antibiotics in labour. The risk factors for EOGBS infection are:

- Having a previous baby with GBS infection*
- Discovery of maternal GBS carriage through bacteriological investigation during pregnancy*
- Preterm birth*
- Prolonged rupture of membranes
- Suspected maternal intrapartum infection, including suspected chorioamnionitis or pyrexia*.

*These prompt the offer (or in the case of preterm labour the recommendation) to the mother of IV antibiotics from the start of labour and at regular intervals until the baby is born.

The RCOG's 2017 guidelines also stated that, where GBS had been

detected in a previous pregnancy, it should be explained to the woman that the likelihood of maternal GBS carriage in this pregnancy is 50%. The options of IV antibiotics in labour, or GBS-specific bacteriological testing in late pregnancy and then offer of IAP if still positive, should be discussed with her. The RCOG and Group B Strep Support (GBSS) worked together to produce an information leaflet covering these guidelines. Copies are available from their websites and from GBSS.

To find out how best to reduce EOGBS infection safely in the UK, the NIHR has funded a trial to compare a test-based strategy with the current risk-based approach. This has been paused pending a lifting of the pandemic. 🙏

📄 NEW I-LEARN MODULE

Despite the RCOG's 2017 guidance, and the information leaflet for expectant and new mothers, good quality and succinct education for midwives has been lacking. Therefore, GBSS has worked in partnership with the RCM to produce an i-learn module on group B Strep. This

45-minute module focuses on GBS in pregnancy, labour and in the days and weeks after birth, setting out the current UK guidelines aimed at reducing EOGBS infection, the key signs of EOGBS and LOGBS infection, and providing links to key medical papers. bit.ly/ilearnBStrep

KEY FACTS

% 20-25% of women carry group B Strep (GBS) in their vagina and/or rectum. Carriage status can change over time, though the result of a GBS-specific test is very predictive for the following five weeks.



On average in the UK two babies a day develop GBS infection, typically sepsis, meningitis and pneumonia. Most make a full recovery, but one baby a week dies from GBS infection, and another recovers with long-term disability.

Early-onset GBS (EOGBS) infection:



60% of GBS cases in babies in the UK are EOGBS infection, typically presenting within 24 hours of birth, as sepsis, pneumonia and meningitis. Most EOGBS infections are preventable.

Late-onset GBS (LOGBS) infection



LOGBS infection presents in babies aged 7-90 days (median age 28 days), more commonly as meningitis than for EOGBS infection. LOGBS infections are not currently preventable.

National UK recommendations



All pregnant women should be provided with an information leaflet about GBS.

Mothers identified as having a raised risk of their baby developing EOGBS infection should be offered intravenous antibiotics from the start of labour until the baby is born.