



Should all pregnant women be screened for GBS during the third trimester to prevent it being passed on to their babies?

Universal antenatal culture-based screening for maternal Group B *Streptococcus* (GBS) carriage to prevent early-onset GBS disease

Background

- Group B *Streptococcus* (GBS) is a bacterium found in 20-25% of pregnant women, and there is a 36% chance of it being passed on to her baby during labour.
- Most babies will not have any symptoms, but 1% will suffer invasive GBS (where bacteria enter parts of the body not normally exposed). If this occurs in the first six days it is known as Early Onset GBS (EOGBS).
- EOGBS can cause pneumonia and meningitis, and is a leading cause of sepsis and death worldwide.
- Most babies with EOGBS will survive, but some may have lasting complications, such as deafness or brain damage, and some will die as a result.
- To prevent passing GBS to the baby, pregnant women can be given antibiotics during labour. This is currently offered to women who are known to have GBS, or who have risk factors for EOGBS (such as high temperature during labour, or a previous baby with EOGBS).
- We conducted a review to update the evidence relating to universal screening of all pregnant women for GBS.

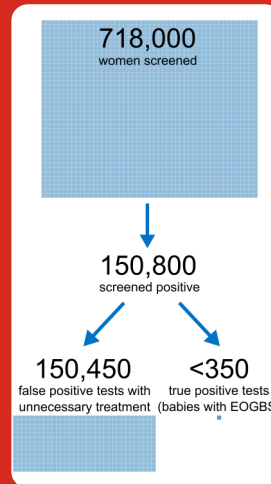
Findings:

- One in every 1,750 (0.06%) babies born in the UK and the Republic of Ireland develop EOGBS.
- One in 19 babies (5%) that develop EOGBS will die from the infection.
- The review **did not recommend** that screening should be introduced. This was for a number of reasons:
 - Under the proposed programme around 718,000 term women would be offered the screening each year.
 - Of these, 150,800 (21%) would test positive and be offered antibiotics during labour.
 - However, the current test is inaccurate for predicting infection in the baby. Fewer than 350 (0.1-0.2%) women would have true positive results that would lead to babies with EOGBS. The vast majority would be false positives (babies without EOGBS) and so many women would receive unnecessary treatment.
 - There is no information on the short and long-term risks to the mother and baby of giving antibiotics during labour.
 - We do not know if giving antibiotics in labour actually reduces the number of babies dying from EOGBS.
 - There is some evidence that screening may lower the number of babies infected with EOGBS, but the studies were limited and may therefore not be true.

Reference:

Seedat, Taylor-Phillips, Geppert, **Stinton**, Patterson, Brown, Tan, **Freeman**, **Uthman**, McCarthy, **Robinson**, **Johnson**, **Fraser**, **Clarke**. Universal antenatal culture-based screening for maternal Group B Streptococcus (GBS) carriage to prevent early-onset GBS disease. National Screening Committee, 2016.

[\[https://goo.gl/GwoHcN\]](https://goo.gl/GwoHcN)



Recommendations for Practice

Screening all pregnant women for GBS is not recommended in the UK. It is not possible to know whether the introduction of such a programme would do more good than harm. More research is needed to identify those pregnant women who will go on to have a baby that develops EOGBS.

What is NIHR CLAHRC West Midlands?

The Collaboration for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between universities (Birmingham, Warwick, and Keele) and a number of health and social care organisations in the West Midlands. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond. For further information, visit:

www.clahrc-wm.nihr.ac.uk

This research was funded by the UK National Screening Committee and the National Institute for Health Research. The views expressed are those of the author and not necessarily those of the UK NSC, the NHS, the NIHR or the Department of Health.