Prevention of Early – Onset Neonatal Group B Streptococcal Disease Guideline

Guideline information

Guideline number: 668
Classification: Clinical
Supersedes: Previous Version
Local Safety Standard for Invasive Procedures (LOCSSIP) reference: N/A
National Safety Standards for Invasive Procedures (NatSSIPs) standards: N/A
Version number: 4
Date of Equality Impact Assessment: 02/07/226

Approval information

Approved by: Maternity Guideline, Audit and Research Group
Date of approval: 30/06/2026
Date made active: 17.08.2026
Review date: 30/06/2029

Scope:
The purpose of this guideline is to provide guidance for obstetricians, midwives, paediatricians and neonatologists on the prevention of early-onset neonatal group B streptococcal (EOGBS) disease and the information to be provided to women, their partners and family.
This policy uses the term “women” to reflect that maternity and reproductive care are sex-based health needs. It applies equally to all people who are pregnant or have recently given birth, including trans men and non-binary people. Care must be delivered in an inclusive, respectful and responsive way.

To be read in conjunction with:
645 – Pre-Labour Rupture of Membranes, Preterm (PPROM) and at Term (PROM) Guideline (opens in a new tab)
1378 Early Onset Sepsis Risk Assessment for infants ≥34 weeks gestation (opens in a new tab)
RCOG GTG 36 Prevention of Early-onset Group B Streptococcal Disease (Green-top Guideline No. 36) | RCOG (opens in a new tab)

Patient information:
https://www.rcog.org.uk/for-the-public/browse-all-patient-information-leaflets/group-b-streptococcusgbs-in-pregnancy-and-newborn-babies/ (opens in new tab)
Group-B-Strep-in-Pregnancy-and-Newborn-Babies-WEB.pdf (opens in new tab)
Group B Strep information in your own language - Group B Strep Support available in 15 languages. (opens in new tab)

Owning group: Maternity Working Control Document Group 30/07/2026
Executive Director job title: Chief Executive Officer

Reviews and updates:
1.0 – New Guideline
2.0 – Revised
3.0 – Updated and Revised
4.0 – revised and uploaded

Keywords - Group B streptococcal, Pregnancy, Birth

Glossary of terms
GBS group B streptococcal
EOGBS Early onset group B streptococcal
IAP Intrapartum Antibiotic Prophylaxis

Key points: Management of Group B haemolytic streptococcus in pregnancy and labour

Contents

Guideline information 1
Approval information 1
Scope 4
Aim 4
Objectives 4
1. Background Rational 4
2. Recognised Major risk factors for GBS Neonatal Infection 5
3. Antenatal Bacteriological screening 5
3.1. Universal Screening 5
3.2. Bacteriological screening swabs for GBS 5
3.3. Review of Bacteriological Results 6
3.4. Record keeping 6
3.5. Information leaflets to be shared/ given 6
4. Criteria to treat 6
4.1. Women if GBS was detected in previous pregnancy 6
4.2. Women with a previous baby with early or late onset GBS disease. 6
4.3. Confirmed pre-term labour (less than 37 weeks). 6
4.4. Women with positive GBS in urine or vaginal swab in CURRENT pregnancy. 7
4.5. Special considerations 7
4.5.1. Planned caesarean birth 7
4.5.2. Pre labour Rupture of Membranes (PROM &PPROM) 7
4.5.3. Induction of Labour 7
5.0 Intrapartum Care Intrapartum Prophylaxis (IAP) 7
5.1 Other situations 8
If chorioamnionitis is suspected: 8
6. Place of birth 8
7. Labour Care 8
8. Assessment of the newborn infant 8
References 9
Appendix 1. Quick Reference Pathway of Care 10

Scope

The purpose of this guideline is to provide guidance for obstetricians, midwives, paediatricians and neonatologists on the prevention of early-onset neonatal group B streptococcal (EOGBS) disease and the information to be provided to women, their partners and family.

Aim

The aim of this document is to:

- Improve outcomes for babies at risk of EOGBS
- Provide guidance on the management of the neonate at increased risk of EOGBS

Objectives

The aim of this document will be achieved by the following objectives:

- Provide clear guidance on the management of GBS during pregnancy, labour and birth
- Provide guidance on the management of the neonate at increased risk of EOGBS

Background Rational

Group B Streptococcus (GBS) is a type of bacteria commonly carried in the human gut or vagina and is recognized as the most frequent cause of severe early-onset (<7 days age) infection in newborn infants.

In many settings, around 10–30% of pregnant women carry GBS in their gastrointestinal or genital tracts and are known as carriers (so called ‘colonisation’), with highest rate in people of black African ancestry and lowest in people of South Asian ancestry. It is a normal commensal in bowel flora and cannot be eradicated. In one quarter of women the vagina may be intermittently colonised, a high vaginal colonisation rate sometimes being reflected in a urine sample growing GBS.

Among babies born to mothers who carry GBS and do not receive antibiotics during labour, up to about 5 in 10 will come into contact with the bacteria, and roughly 1–2 in 100 of these babies will go on to develop a serious early-onset GBS infection in the first days of life

Spread is trans-perineal so that rectal and low vaginal swabs have a higher yield than high vaginal and cervical swab. It is also found in urine in case of GBS bacteriuria, which is associated with a higher risk of neonatal disease.
When detected antenatally up to 50% of pregnant carriers may be culture negative at the time of labour

Of those neonates affected, approximately two-thirds will present within 7 days of birth (early onset disease), while the remaining one-third present after the first week (late onset disease).

In the presence of one or more of major risk factors the risk is increased substantially and may be as high as 40 per 1000. In UK in approximately 60% of early-onset GBS cases the neonate has one or more of the risk factors.

Recognised Major risk factors for GBS Neonatal Infection

Recognised Major risk factors for GBS Neonatal Infection	
Antenatal .	• Previous baby with GBS disease. • GBS in urine or vaginal swabs in the **current** pregnancy • Preterm birth (before 37 weeks). • Preterm pre-labour rupture of membranes.
Intrapartum	• Prolonged rupture of the membranes • Pyrexia in labour • Suspected maternal intrapartum infection, including suspected chorioamnionitis.

Antenatal Bacteriological screening

Universal Screening

The National Screening Committee does NOT recommend universal bacteriological screening for GBS (unless as a part of clinical trial) * as there is no clear evidence to show that it would do more good than harm due to the following reasons

- Many women carry the bacteria and, in the majority of cases their babies are born safely and without developing an infection.
- Screening women late in pregnancy cannot accurately predict which babies will develop GBS infection.
- No screening test is entirely accurate. (17-25% of women with a positive swab at 35- 37 weeks of gestation will be GBS negative at delivery. 5-7% of women who are GBS negative at 35-37 weeks of gestation will be GBS positive at delivery)
- Many of the babies who are severely affected from GBS infection are born prematurely, before the suggested time for screening
- Giving all carriers of GBS Intra-partum Antibiotic Prophylaxis (IAP) would mean that a very large number of women would receive treatment they do not need; this may increase adverse outcomes to mother and baby.

Note: If a woman has chosen to seek GBS testing outside of the National Health Service NHS and this is performed by an accredited laboratory, then IAP should be offered if the woman is found to be a carrier

Bacteriological screening swabs for GBS

- Swabs should be taken from the **lower vagina AND the anorectum**.
- A single swab (vagina then anorectum) or two different swabs can be used
- Specimens should be transported and processed as soon as possible, if processing is delayed, specimens should be refrigerated
- Clinician should indicate that the swab is being taken for GBS on the request form.

N.B: Bacteriological testing suggested by RCOG is vaginal/rectal (Enriched Culture Medium swab). This Swab process is not currently available on the NHS in Wales. Inform women that our current NHS test in Wales is not the most accurate and could provide more false negatives results. Some women may just want the IAP.

Review of Bacteriological Results

If GBS is identified in pregnancy through either urine cultures or vaginal swab, regardless of whether the finding was incidental, it must be followed up at the location that the test was performed e.g. Triage phone line, or community.

Record keeping

- Results must be entered in woman's electronic notes on Badgernet, documented on WPAS under the 'Keynote tab'. The accompanying alert sticker should also be placed on the front of the maternal handheld folder (with maternal consent)

- RCOG/GBS leaflet should be given/ shared via BadgerNet (see below)

Information leaflets to be shared/ given

Group B Streptococcus (GBS) in pregnancy and newborn babies | RCOG
Group-B-Strep-in-Pregnancy-and-Newborn-Babies-WEB.pdf
Group B Strep information in your own language - Group B Strep Support available in 15 languages.

Criteria to treat

Refer to Appendix 1 "Quick Reference Pathway of care"

Women if GBS was detected in previous pregnancy

When GBS positive in previous pregnancy the likelihood of maternal GBS carriage in current pregnancy is 50%.

- Offer bacteriological testing at 35-37 weeks or 3-5 weeks prior to anticipated birth date if earlier. This can be completed at their community midwifery appointment or obstetric led antenatal appointment at 36 weeks.
  and
- Also be offered treatment for GBS (IAP)

Women with a previous baby with early or late onset GBS disease.

- Screening and empirical treatment antenatally is ineffective and therefore unnecessary.
- IAP should be offered to these women.

Confirmed pre-term labour (less than 37 weeks).

The risk of GBS disease in preterm deliveries is 2.3 per 1000. Mortality rate from infection is increased (20-30% vs 2-3% at term).

- IAP is recommended for women when active preterm labour is confirmed (i.e. >4cm dilated) and **not when only suspecting** preterm labour.

Women with positive GBS in urine or vaginal swab in CURRENT **pregnancy.**

- Antenatal antibiotic treatment is unnecessary **unless** for confirmed GBS significant bacteriuria (GBS in Urine >10^5). Irrespective of any symptoms, as soon as the MSU GBS result is received commence treatment with antibiotics.
- Women with positive GBS on MSU or HVS should be offered Intrapartum antibiotic prophylaxis (IAP) (See "Intrapartum Care" section for treatment in labour)

Note: Membrane sweeping is not contraindicated if woman is GBS

Special considerations

Planned caesarean birth

In the absence of labour or membrane rupture, planned caesarean births DO NOT require GBS antibiotic prophylaxis, irrespective of their GBS status, since the risk of neonatal GBS disease is extremely low.
Women who are known GBS carriers who are to birth by caesarean birth after SROM should be offered IAP.

Pre labour Rupture of Membranes (PROM &PPROM)

- Women known to be colonised with GBS with spontaneous rupture of membranes at term should be offered immediate IAP and induction of labour as soon as reasonably possible.
- Planning birth in these cases should involve senior obstetric advice to confirm the management plan
- In women colonised with GBS in this or a previous pregnancy, with preterm rupture of membranes before 34 weeks, the perinatal risks of preterm birth likely outweigh the benefits unless there are other clinical reasons for birth. After 34+0 weeks it may be beneficial to expedite birth.
- If chorioamnionitis is suspected, discuss with the obstetric consultant AND give antibiotics to cover GBS and other organisms

Induction of Labour

- GBS does not influence the method of induction
- The IV antibiotic regime should be commenced following establishment of labour, spontaneous rupture of membranes during the induction process or at the time of artificial rupture of membranes. Ideally this will be more than 4 hours prior to deliver

Intrapartum Care Intrapartum Prophylaxis (IAP)

No Allergy to Penicillin	• 3g IV Benzylpenicillin stat after onset of labour, • followed by 1.5g IV Benzylpenicillin 4hourly until birth.
Allergy to Penicillin (NOT ANAPHYLAXIS)	If history suggests an allergy to penicillin, but one that is not severe (i.e. no anaphylaxis, angioedema, respiratory distress or urticaria), then:

	• administer Cefuroxime 1.5g IV stat after onset of labour, • followed by 750mg IV 8hourly until birth
SEVERE Allergy to Penicillin	• 1g IV Vancomycin every 12hours.

EOLAS link for intrapartum antibiotics opens in new tab: - opens in a new tab

Other situations

If chorioamnionitis is suspected:

Broad spectrum antibiotic therapy, including an agent active against GBS should replace GBS-specific antibiotic prophylaxis (if no penicillin allergy, usually Cefuroxime and Metronidazole).

EOLAS link for antibiotics for chorion amnionitis: - opens in a new tab

Place of birth

- If confirmed GBS positive in current pregnancy women should be booked under CLC and advised to birth on the obstetric led unit.
- If a woman does not wish to give birth on the obstetric led unit, she should be referred to her named community midwife / consultant midwife for individualised care planning

Labour Care

- Birth in a pool is not contraindicated if the woman is a known GBS carrier
- Woman with pre-term rupture of membranes: IAP should be given once labour is confirmed or induced irrespective of GBS status
- **GBS, in isolation, is not an indication for CTG in labour**
- Women who are pyrexia (38*C or greater) in labour should be offered a broad-spectrum antibiotic regimen which should cover GBS in line with local microbiology sensitivities

EOLAS Link for antibiotics for Pyrexia in Labour : - opens in a new tab

Assessment of the newborn infant

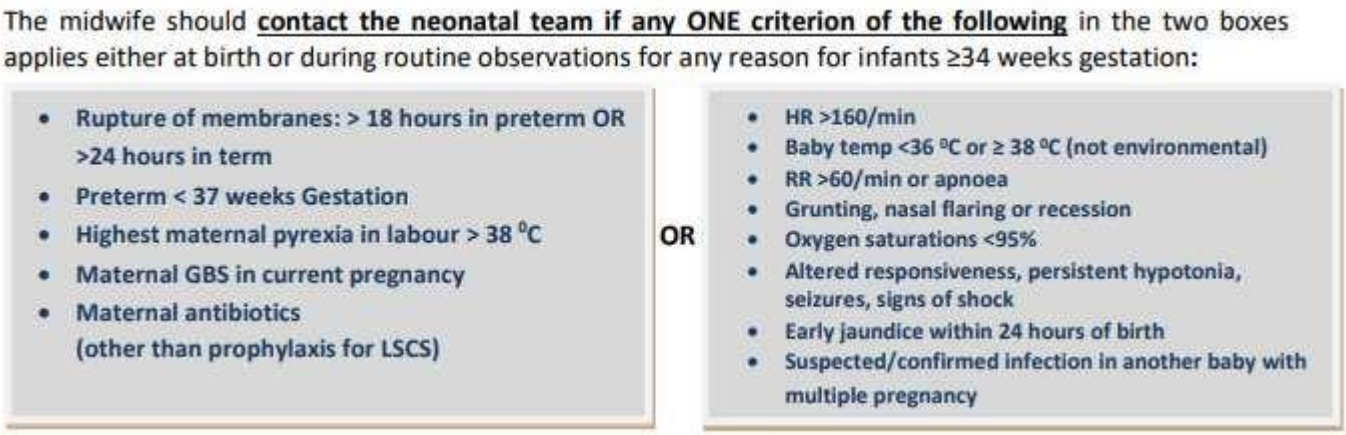
Refer to 1378. Early Onset Sepsis Risk Assessment for infants≥34 weeks guideline for screening, risk assessment and treatment of early onset neonatal sepsis (EONS)

- Evidence shows that alignment with Sepsis Risk Calculation (SRC) reduced the need for antibiotics for the newborn by 74% without missing any additional cases of true sepsis.

Therefore, it is recommended that care of the newborn across Wales should align with Early Onset Sepsis (EOS) recommendations rather than NICE guidance

- Babies born to mothers who are known to be carriers of GBS should be advised that observations for a minimum of 24 hours are recommended.

In line with guideline following birth the paediatrician should be informed and asked to review the baby in order that SRC can be undertaken, and a management plan be decided.



References

All Wales Neonatal Network (2019) Early Onset Sepsis Risk Assessment for Infants ≥34 Weeks

American College of Obstetricians and Gynaecologists. Prevention of group B streptococcal early-onset disease in newborns: ACOG Committee Opinion, Number 797. Obstet Gynecol. 2020 ;135(2): e51–e72. doi:10.1097/AOG.0000000000003668. https://pubmed.ncbi.nlm.nih.gov/6355318/

Differential rates of group B streptococcus (GBS) colonisation in pregnant women in a racially diverse area of London, UK: a cross-sectional study - Gopal Rao - 2019 - BJOG: An International Journal of Obstetrics & Gynaecology - Wiley Online Library
Frontiers | Group B Streptococcal Colonization, Molecular Characteristics, and Epidemiology

Neonatal Early Onset Risk (EOS) Calculator (2024 update)
Infection Probability Calculator - Neonatal Sepsis Calculator

NICE (2021) NG195 Neonatal infection: antibiotics for prevention and treatment updated May 2026
Recommendations for research | Neonatal infection: antibiotics for prevention and treatment | Guidance | NICE

ROCG (2017) Prevention of Early-onset Neonatal,Group B Streptococcal Disease. Green-top guideline no.36

World Health Organisation Group B Streptococcus (GBS)

Appendix 1. Quick Reference Pathway of Care