



Antenatal Guidelines

No.7 Group B Streptococcus

1. Introduction

Neonatal bacterial sepsis is associated with significant morbidity and mortality. Group B Streptococcus (GBS) is the leading cause of perinatal infection. The incidence of infection in England and Wales is 0.7 in 1000 live births.

2. Pathophysiology

GBS is commonly present in the maternal genito-urinary and gastro-intestinal tract and colonises 10 to 30 % of pregnant women.

Contamination of the infant usually occurs following passage of the infant through the colonised birth canal.

Rates of vertical transmission (resulting in colonisation) vary from 40 to 70 % however rates of neonatal infection are low but are significantly increased by major risk factors.

Of those neonates that become infected 66% present within the first 7 days (90 % within the 24 hours) and are considered early onset disease.

The overall mortality is 9.4% (6% Term and 18% Preterm) for systemic infection.

3. Antenatal screening

Routine screening is not practised in the UK. It would only detect 50% of carriers and of those that would be detected 50% would go on to be culture negative at birth.

Current evidence does not support screening for GBS or the administration of intrapartum antibiotic prophylaxis (IAP) to women in whom GBS carriage was present in a previous pregnancy.

Women with GBS urinary tract infection ($>10^5$ cfu/ml) during pregnancy should receive appropriate treatment at the time of diagnosis as well as IAP.

4. Which mothers should be treated?

- Women who have had a GBS positive HVS or bacteruria at any time during this pregnancy,
- Intrapartum antibiotic prophylaxis should be offered to women with a previous baby with neonatal GBS disease, irrespective of their current status for GBS,
- If chorioamnionitis is suspected, broad-spectrum antibiotic therapy including an agent active against GBS should replace GBS-specific antibiotic prophylaxis,
- Mothers who have had a GBS positive HVS or bacteruria at any time in a previous pregnancy (irrespective of a subsequent negative result) and present in this pregnancy with 1 or more of the following:
 - Premature delivery (< 37 weeks)
 - Intrapartum fever (temp > 38 deg Celsius for 1 hour or more)
 - Prolonged rupture of membranes ≥ 18 hours).

5. Treatment

Intravenous penicillin 3 g is given as soon as possible after the onset of labour followed by 1.5 g four-hourly until delivery.

For women who are allergic to penicillin intravenous **Clindamycin 900 mg** should be given eight-hourly.

6. Special situations

Women with known GBS colonisation who are diagnosed with pre-labour rupture of membranes at 37/40 or more should be offered immediate induction of labour and IAP.

Women with known GBS colonisation undergoing planned Caesarean section in the absence of labour and with intact membranes should receive standard intraoperative antibiotics for Caesarean section.

Any unusual presentations or clinical uncertainty should be referred to a senior Obstetrician for management.

7. Post delivery / neonate – cross-referenced to Neonatal Guidelines

Which infants should be treated?

- Any infant suspected of sepsis (see sepsis protocol)
GBS sepsis can be mistaken for or associated with perinatal hypoxia.
- Infants of mothers who have had a GBS positive HVS or bacteriuria at any time during this or a previous pregnancy (irrespective of a subsequent negative result) and inadequate intrapartum intravenous antibiotics (< 2 hours prior to delivery) **plus one** of the following risk factors:
 - Premature delivery (< 37 weeks)
 - Maternal fever (temp > 38 deg Celsius for 1 hour or more)
 - Prolonged rupture of membranes ≥ 18 hours
 - Offensive liquor

If any risk factors are identified then look for others. If there is any doubt discuss with consultant.

8. Special Circumstances

- **Any infant born to a mother who has had a previous infant with proven GBS disease.**
If mother has had antibiotics at least 4 hours prior to delivery then infant should have NEW observations for at least 24 hours. If antibiotics have not been given appropriately then a partial septic screen should be done and antibiotics started irrespective of any negative HVS culture results from the mother.
- Where one infant from a multiple birth is diagnosed with GBS disease the other infant should also be treated even if well.

NEW observations to be recorded in the asymptomatic infant at 1 hour, at 4 hours and every 4 hours until 24 hours of age, if the mother has not received antibiotic cover in labour.

9. Cautions

- If in any doubt treat and seek senior advice.

10. Record keeping

It is expected that every episode of care be recorded clearly, in chronological order and as contemporaneously as possible by all healthcare professionals as per Hospital Trust Policy. This is in keeping with standards set by professional colleges, i.e. NMC and RCOG.

All entries must have the **date and time** together with **signature and printed name**.

Monitoring and Audit

Auditable Standards:

Please refer to audit tool, location: 'Maternity on cl2-file11', Guidelines

Reports to:

Clinical Effectiveness Committee – responsible for action plan and implementation of recommendations from audit

Frequency of audit:

Annual

Responsible person:

SHO

Cross references:

Antenatal Guideline 31: Maternity Hand Held Notes, Hospital Records and Record keeping
Antenatal Guideline 44 – Guideline Development within the Maternity Services

Neonatal Guideline - Group B Strep

References

National Institute of Clinical Health and Excellence, 2012. **Antibiotics for early-onset neonatal infection: antibiotics for the prevention and treatment of early-onset neonatal infection.** RCOG, London.

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Changes	NEW obs at 1 and 2 hours, then 2 hourly until 12 hours Changed back to NEW obs at 1 hr then 4 hourly for 24 hours Amended to >18 hrs with PROM for treatment Additional information on screening and special circumstances		
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