Group B streptococcal infection (GBS) guideline (GL850)

Approval

<table>
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<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
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<tr>
<td>Maternity &amp; Children’s Services Clinical Governance Committee</td>
<td>Chair, Maternity Clinical Governance Committee</td>
<td>1st November 2019</td>
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Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
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<tr>
<td>6.0</td>
<td>March 2017</td>
<td>Christine Harding (Consultant MW) Rebecca Blakely (AN Services Manager)</td>
<td>Reviewed and changes made to bring into line with current RCOG guidance (pg 3 &amp; 5)</td>
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<tr>
<td>6.1</td>
<td>Aug 17</td>
<td>C Harding</td>
<td>Pg 2/3 Changed to reflect current RCOG green top 36 Pg 5 RCOG reference updated</td>
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<tr>
<td>7.0</td>
<td>March 2019</td>
<td>C Harding (Consultant MW), L Williams (Consultant Anaesthetist), S Iyer (Consultant Microbiologist), Cristiana Ogunmode de (Microbiology Pharmacist)</td>
<td>Reviewed and changes made in agreement with Microbiology to use IV teicoplanin in cases of severe allergy. Also clarification of management of at risk neonate after birth</td>
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**Overview:** GBS is present in the bowel flora of 20-40% of adults. GBS is associated with pre-term labour and mid-trimester loss. It contributes to neonatal mortality and morbidity and can cause severe early onset neonatal pneumonia.

GBS is the most frequent cause of severe early onset (less than 7 days) infection of newborn infants (EOGBS disease)

89-94% of infants that develop EOGBS disease develop signs within the first 24 hours after birth. A significant number of these infants would have had signs of fetal distress during labour, an emergency delivery or low apgars

**Screening:**

There is no evidence that routine screening has had any impact on neonatal mortality.

The national screening committee does not recommend routine screening in the UK.

If GBS was detected in a previous pregnancy, the likelihood of carriage in a subsequent pregnancy is 50%.

GBS bacteriuria is associated with a higher risk of Chorioamnionitis & neonatal disease; these women should be offered Intrapartum antibiotic prophylaxis (IAP), as well as appropriate treatment for GBS UTI in pregnancy.

In general, antenatal prophylaxis is not indicated for incidental findings of vaginal GBS colonisation, in the absence of symptoms. In cases where there is a clear past history of previous infection associated mid-trimester loss, antenatal treatment may be appropriate. This should be discussed with a consultant obstetrician.

Women with GBS carriage identified in previous pregnancy should be offered intrapartum antibiotic prophylaxis (IAP) or bacteriological testing 3-5 weeks prior to expected delivery date (35-37 weeks or sooner if multiple pregnancy). Paired lower vaginal and anorectal swabs should be taken.

**Treatment (antenatal) if symptomatic**

Co-amoxyclov 375 mg 3 times daily orally for 7 days. For women who are allergic or the culture is insensitive to co-amoxyclov use clindamycin or erythromycin

**Treatment (intra-partum)**

There is evidence that IAP for women colonised with GBS reduces the incidence of EOGBS disease but not late onset disease (more than 7 days after birth). It has not been shown to reduce all-causes of mortality or GBS related mortality.

IAP should be offered to...
• All women who have had a positive vaginal or anorectal swab at any point during the current pregnancy
• All women who have had GBS bacteriuria in the current pregnancy
• All women who have had a baby affected by neonatal GBS disease
• All women with preterm prelabour rupture of membranes

There is no need to offer IAP to women who have had a positive GBS result outside of the current pregnancy but have had a negative vaginal or anorectal swab in the current pregnancy

Women who have had a GBS positive vaginal or anorectal swab during the current pregnancy who present with confirmed ruptured membranes after 36 weeks should be augmented straight away and offered IAP

All women who require antibiotic prophylaxis for GBS and are being induced must start the appropriate antibiotic regime once labour starts. If labour is being induced commence antibiotics at ARM. There is no value in treating women, known to be GBS carriers, undergoing elective caesarean sections with intact membranes.

If Chorioamnionitis is suspected in a women known to be colonised with GBS, broad spectrum antibiotic therapy including an antibiotic active against GBS should replace GBS specific IAP and consideration should be given to expediting delivery

Women with preterm rupture of membranes should be managed according to “Preterm pre-labour rupture of membranes (GL895)”. Antibiotics specific for GBS are not necessary prior to labour, but women should be offered IAP.

Intra-partum treatment is as follows:
Penicillin G 3 g IV loading dose then 1.5g 4 hourly until delivered.
In cases of severe penicillin allergy:

IV teicoplanin 10 mg/kg to be repeated after 12 hours if still in labour

IV antibiotics should be given at least 4 hours pre-delivery if possible

Paediatricians should be informed of mothers with GBS who are symptomatic of infection

Patients discharged home within 24 hours after prolonged ROM should be seen by paediatric staff re awareness of neonatal symptoms of GBS infection.

Link to RCOG summary document: https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36/
Maternity Guidelines – Group B Streptococcal Infection (GBS) GL850

Neonatal (see Neonatal Sepsis & Observation GL380)
If women colonised with GBS and who have received appropriate IAP, the risk of EOGBS disease is significantly lower than those who have not received antibiotics.
Many infants with EOGBS disease have signs at or soon after birth. These infants should be investigated & treated promptly with antibiotics that provide cover for GBS and other common pathogens such as Escherichia Coli such as Benzylpenicillin & Gentamycin.
There is no evidence to discourage breast-feeding where there are concerns regarding the possible risk of transmission of GBS disease.

At risk infants in the following groups require observations at 1hr and 2hrs of life and thereafter 2 hourly for 12 hours.

- If GBS positive swab in this pregnancy or invasive GBS in previous neonate irrespective of whether mother has received intrapartum antibiotics
- If GBS swab positive in previous pregnancy (but not invasive disease in previous baby) and not screened in this pregnancy irrespective of whether mother has received intrapartum antibiotics
- If any abnormal observations in previous 12 hours: Continue 4 hourly for further 12 hours after clinical review

Auditable standards:
1. All women with history of positive GBS result will be offered antibiotic prophylaxis on arrival in labour / SROM, or ARM.
2. In all cases when observation values fall outside the shaded areas in the “Baby Observation Chart” the situation will be discussed with the midwife in charge and a member of the paediatric team. This will be documented in the postnatal maternal healthcare record.

References
1. Schuchat A et al. Prevention of perinatal group B streptococcal disease: A public health perspective. MMWR 1996:45 (NoRR-7); 1-21
2. Group B Strep. Support “If your baby was infected with GBS” June 1997