Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V1.5

10th August 2018
Summary

Pregnant women

GBS bacteriuria in current pregnancy

Oral antibiotics if proven GBS UTI

Offer IAP

Planning vaginal delivery

Caesarean section, not in labour and membranes intact (regardless of GBS carrier status)

No IAP

GBS carriage (colonisation) identified in a previous pregnancy

Explain likelihood of carriage in current pregnancy

Term

Previous infant with invasive GBS

Offer IAP

Preterm labour

Offer IAP

Prelabour rupture of membranes

Known GBS carrier (however detected)

Immediate IAP and IOL as soon as reasonably possible

Unknown or negative GBS status but other risks for IAP

Offer either immediate IOL or expectant management <24 hours and IAP once in labour.

No risk factors for IAP

No risk for EOGBS

No IAP

Labour

No risk factors for IAP

Pyrexia (38.0 or higher)

Offer broad spectrum antibiotics with GBS cover

GBS carriage (colonisation) in current pregnancy- however detected

Offer IAP

Labour

Recommend expectant management <24 hours

No risk factors for EOGBS

No IAP
1. Aim/Purpose of this Guideline

This guideline provides concise practical guidance to midwives and obstetricians caring for women whose babies are at risk of Early Onset Group B Streptococcus infection.

2. The Guidance

2.1. Background

Group B beta haemolytic Streptococcus (GBS) is commonly carried by women of childbearing age (about 25%), and is recognised as the most frequent cause of severe early infection in the newborn. The incidence quoted is 0.5 per 1000 births in the UK with no preventative measures. However, this incidence is accepted by many to be an underestimate, as it represents culture proven infection. This infection carries a mortality and a risk of disability in survivors. Reducing the risk of neonatal infection has to be balanced against the increased medicalisation of childbirth, the adverse risk of antibiotics (fatal anaphylaxis to mothers given IV penicillin is estimated to be 1:100,000) and neonatal infection with resistant organisms.

2.2. Strategies during pregnancy to prevent neonatal Early-onset bacterial infection (EOI)

2.2.1 Samples for bacterial culture during pregnancy:

- Universal bacteriological screening is not recommended
- A maternal request is not an indication for GBS screening
- Women should be offered routine screening for asymptomatic bacteriuria by midstream urine culture early in pregnancy
- Routine antenatal screening for asymptomatic bacterial vaginosis is not recommended
- Routine antenatal screening of all pregnant women for GBS carriage is not recommended other than MSU at booking
- If GBS has been identified in a previous pregnancy, the woman should be informed that there is a 50% likelihood of GBS carriage in this pregnancy. She should be offered either Intrapartum Antibiotic Prophylaxis (IAP) or testing in late pregnancy (35-37 weeks for singletons and 32-34 weeks for multiple pregnancy) to determine whether to offer IAP (NEW 2018)
- If swabs are not transported immediately to the laboratory, they should be refrigerated (NEW 2018)
- The request form should state that the swab is being taken for GBS

2.2.2 Use of antenatal antibiotic therapy

- Antenatal benzylpenicillin prophylaxis does not reduce the likelihood of GBS
- colonisation at delivery and is not an effective preventive strategy
- Women found to have vaginal or rectal colonisation with GBS during pregnancy should not have antenatal treatment
• Treatment of asymptomatic GBS or other bacteriuria in pregnancy reduces the risk of maternal pyelonephritis. Therefore women with significant bacteriuria (growth of greater than 10^8 cfu/l or at a lower count if symptomatic NEW 2018) should receive antibiotic treatment appropriate to the organism identified
• Erythromycin should be offered orally for 10 days following a definite diagnosis of preterm pre-labour rupture of membranes.

2.3 Intrapartum Antibiotic Prophylaxis (IAP)

IAP reduces the risk of neonatal EOI in babies born to women colonised or infected with GBS. The recommendations on use of IAP against GBS seek to balance the reduction in risk of neonatal infection with the increased medicalisation of childbirth, risk of adverse antibiotic reaction, and the potential promotion of resistant organisms.

2.3.1 Women to be offered IAP:

• previous baby affected by early- or late-onset neonatal GBS disease
• GBS bacteriuria in current pregnancy
• coincidentally identified GBS in the current pregnancy
• GBS in a previous pregnancy IF: (NEW 2018)
  ➢ positive GBS screen at 35-37 weeks (32-34 weeks for twins)
  OR
  ➢ maternal request for IAP
  ➢ (the woman may choose neither swab nor IAP)
• All women in established preterm labour (NEW 2018)

2.3.2 Women who should not have IAP:

• Term or preterm planned Caesarean section not in labour and with intact membranes. If PROM has occurred, IAP should be offered and delivery by Caesarean section after 2 hours if clinical situation allows
• Maternal request in the absence of a past history and/or microbiological evidence of GBS

2.3.3 Communication

All women identified antenatally with any of these indications for IAP should have a yellow GBS sticker placed on the ‘maternity management plan page’ and an alert placed in E3. (NEW 2018)

2.3.4 Antibiotic prescription

• Benzyl penicillin 3g IV then 1.5g at 4 hourly intervals until delivery
• If the woman is allergic to penicillin Cefatratxone 2g IV OD should be used if the allergy is not severe (NEW 2018); for severe allergy use Clindamycin 900mg IV every 8 hours until delivery
• Commence antibiotics at presentation in labour
• If undergoing induction of labour (IOL) and IAP is indicated, this should be administered at the onset of any uterine activity
- Antibiotics should be commenced at least 2 hours prior to delivery, but treatment for a shorter time may still be beneficial to the neonate

2.3.5 Suspected Chorioamnionitis

Women with a fever > 38°C in labour or with clinically suspected Chorioamnionitis should:
- have a blood sample sent for blood culture
- commence broad spectrum IV antibiotic therapy, including an antibiotic active against GBS
- have placenta sent for culture and histology

2.4 Management of GBS cases with Prelabour rupture of the membranes (PROM)

2.4.1 Term PROM

- For women with GBS colonisation in the current pregnancy, offer immediate IAP and induce as soon as reasonably possible
- Induce with oxytocin. If however delivery suite is unable to accept the women immediately then the induction of labour should be commenced with Propess until they are able to accept the women on delivery suite to start oxytocin
- All women due to have IAP for other risk factors should be offered either immediate induction or expectant management that should not extend beyond 24 hours.
- Expectant management for up to 24 hours should be recommended for all other women
- All mothers of babies born following PROM should be asked to inform their healthcare professionals immediately of any concerns they have about their baby’s wellbeing in the first 5 days following birth, particularly in the first 12 hours when the risk of infection is greatest

2.4.2 Preterm PROM (NEW 2018)

- Bacteriological testing for GBS carriage is not recommended but IAP should be given once labour is confirmed or induced irrespective of GBS status
- Expectant management is appropriate before 34 weeks’ gestation
- After 34+0 weeks’ gestation ‘it may be beneficial to expedite delivery’ if a woman is a known GBS carrier. Evidence is grade D based upon secondary analysis of a single study and needs to be balanced against the risks of prematurity. In the absence of any clinical concerns regarding infection or other maternal or fetal wellbeing, IOL should only be discussed in detail and offered by a Consultant obstetrician. This consultation does not need to take place as an emergency

2.5 Management of the neonate

Please see ‘RCHT Neonatal Clinical Guideline, Diagnosis and Treatment of Early-Onset Neonatal Bacterial Infection’
3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>The audit will take into account record keeping by obstetric, anaesthetic and paediatric doctors, midwives, nurse, students and maternity support workers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Maternity Patient Safety Midwife</td>
</tr>
</tbody>
</table>
| Tool                     | • If antenatal risk for GBS identified was a yellow sticker placed on maternity management plan page.  
• If the woman was prescribed intrapartum antibiotics was this documented in the intrapartum records.  
• If routine neonatal observation required was this documented on a newborn observation chart as per the neonatal plan |
| Frequency                | Frequency 1% or 10 sets, whichever is the greatest, of all health records where there is known GBS present in either mother or newborn will be audited over a 12 month period |
| Reporting arrangements   | • A formal report of the results will be received annually at the Maternity Patient Safety and Clinical Audit Forum, as per the audit plan  
• During the process of the audit if compliance is below 75% or other deficiencies identified, this will be highlighted at the next Maternity Patient Safety and Clinical Audit Forum and an action plan agreed |
| Acting on recommendations and Lead(s) | • Any deficiencies identified on the annual report will be discussed at the Maternity Patient Safety and Clinical Audit Forum and an action plan developed  
• Action leads will be identified and a time frame for the action to be completed by  
• The action plan will be monitored by the Maternity Patient Safety Forum and Clinical Audit Forum until all actions complete |
| Change in practice and lessons to be shared | • Required changes to practice will be identified and actioned within a time frame agreed on the action plan  
• A lead member of the forum will be identified to take each change forward where appropriate.  
• The results of the audits will be distributed to all staff through the Patient Safety Newsletter |

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ‘Equality, Diversity & Human Rights Policy’ or the Equality and Diversity website.

4.2. Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
### Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V1.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>10th August 2018</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>10th August 2018</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>10th August 2021</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Rob Holmes Consultant Obstetrician and Gynaecologist</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872-252730</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>To give guidance to all midwives and obstetricians on the management of women who receive a diagnosis of GBS during pregnancy or have had a baby previously infected with GBS</td>
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<tr>
<td>Suggested Keywords:</td>
<td>Use this section to suggest keywords to be added by the Uploader to aid document retrieval.</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Date revised:</td>
<td>10th August 2018</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Group B Beta Haemolytic Streptococcus (GBS) Maternal Management Clinical Guideline V1.4</td>
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<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Maternity Guideline Group Obs &amp; Gynae Directorate Divisional Board Policy Review Group</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Tunde Adewopo</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not required</td>
</tr>
<tr>
<td>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed} Name: Caroline Amukusana</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet</td>
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<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Document Library Folder/Sub Folder</td>
<td>Clinical/Midwifery &amp; Obstetrics</td>
</tr>
<tr>
<td>Links to key external standards</td>
<td></td>
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</table>
| Related Documents: | • RCOG Green Top Guideline No36: The prevention of early-onset neonatal Group B Streptococcal Disease  
• RCOG Green Top Guideline No 44: Preterm pre-labour rupture of membranes.  
• RCHT 2015: Induction of labour |
| Training Need Identified? | No |
## Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<tr>
<td>April 2006</td>
<td>V1.0</td>
<td>Initial document</td>
<td>Paul Munyard Consultant Neonatologist</td>
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<tr>
<td>April 2008</td>
<td>V1.1</td>
<td>Reviewed and updated</td>
<td>Paul Munyard Consultant Neonatologist</td>
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<tr>
<td>April 2010</td>
<td>V1.2</td>
<td>Reviewed and updated and change to compliance monitoring</td>
<td>Paul Munyard Consultant Neonatologist</td>
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<tr>
<td>September 2012</td>
<td>V1.3</td>
<td>Changes to compliance monitoring</td>
<td>Karen Watkins Consultant Obstetrician</td>
</tr>
<tr>
<td>7th July 2016</td>
<td>V1.4</td>
<td>Flow chart added and benchmarked to RCOG greentop clinical guidelines</td>
<td>Karen Watkins Consultant Obstetrician</td>
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<td>10th August 2018</td>
<td>V1.5</td>
<td>Updates to sections 2.2.1, 2.2.2, 2.3.1, 2.3.3, 2.3.4, 2.4.1, 2.4.2</td>
<td>Rob Holmes Consultant Obstetrician</td>
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**All or part of this document can be released under the Freedom of Information Act 2000**

**This document is to be retained for 10 years from the date of expiry.**

**This document is only valid on the day of printing.**

**Controlled Document**

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Appendix 2. Initial Equality Impact Assessment Form

This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>Directorate and service area: Obs &amp; Gynae Directorate</th>
<th>Is this a new or existing Policy? Existing</th>
</tr>
</thead>
</table>

**Name of individual completing assessment:** Karen Watkins

**Telephone:** 01872-252729

1. **Policy Aim***

   **Who is the strategy / policy / proposal / service function aimed at?**

   To give guidance to all midwives, obstetricians and neonatal staff on the management of women who receive a diagnosis of GBS during pregnancy or have had a baby previously infected with GBS. To give guidance on the initial management of a baby at risk of GBS following birth.

2. **Policy Objectives***

   Ensure correct and timely management of a woman and her new-born baby at risk of GBS infection

3. **Policy – intended Outcomes***

   Best possible outcome for a woman and baby at risk of GBS infection

4. **How will you measure the outcome?**

   Compliance Monitoring Tool

5. **Who is intended to benefit from the policy?**

   All pregnant women and their new-born babies

6a Who did you consult with

   Workforce | Patients | Local groups | External organisations | Other
   X

b). Please identify the groups who have been consulted about this procedure.

   **Please record specific names of groups**
   - Maternity Guideline Group
   - Obs & Gynae Directorate
   - Divisional Board
   - Policy Review Group

What was the outcome of the consultation?

Guideline agreed
7. The Impact
Please complete the following table. **If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.**

Are there concerns that the policy **could** have differential impact on:

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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<tbody>
<tr>
<td>Age</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
</tr>
<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
</tr>
<tr>
<td>Race / Ethnic communities /groups</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
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<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
</tr>
<tr>
<td>Religion / other beliefs</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
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<tr>
<td>Marriage and Civil partnership</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
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<tr>
<td>Pregnancy and maternity</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
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<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
<td>X</td>
<td></td>
<td></td>
<td>All pregnant women and their new-born babies</td>
</tr>
</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:
- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation- this **excludes** any policies which have been identified as not requiring consultation. **or**
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended.
   | Yes | No X |

9. If you are **not** recommending a Full Impact assessment please explain why.

No areas indicated
Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,
Truro, Cornwall, TR1 3HD

This EIA will not be uploaded to the Trust website without the signature of the
Human Rights, Equality & Inclusion Lead.

A summary of the results will be published on the Trust’s web site.

Signed Sarah-Jane Pedler

Date 10th August 2018