Summary: Group B Strep Pathway

Booking appointment
Routine MSU for asymptomatic Bacteriuria

↓

Within 7 days
CMW to check results on MAXIMS

↓  

Group B Strep Positive
1. Liaise with GP to commence antibiotic treatment and confirm effectiveness with repeat MSU
2. Inform the mother she will need IV antibiotics in labour
3. Attach Gp B Strep sticker to hand held notes
4. Forward Gp B Strep letter to Delivery Suite to be added to GpB Strep Risk Folder

Gp B Strep Negative
No Further action

Pre labour PROM< 37 weeks
Follow pre labour PROM GUIDELINE
Consult obstetrician

Pre labour PROM> or = 37/40
With Gp B Strep+ve (HVS/urine)
Previously GBS infected baby
Immediate IOL & IAP
1. Aim/Purpose of this Guideline

1.1. This guideline has been taken from the guideline titled ‘RCHT Maternity and Neonatal Clinical Guideline Prevention, Diagnosis and Treatment of Early-Onset Neonatal Bacterial Infection, Dec 2012’ and has been produced to give concise practical guidance to midwives and obstetricians caring for women whose babies are at risk of Early Onset Group B Streptococcus infection. For more detailed explanation and advice regarding preventing other bacterial infections and advice regarding the care of the newborn, referral to the full guideline should be made.

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)

- Samples for bacterial culture during pregnancy
  - 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 pregnant women for GBS carriage is not recommended, even when there is a past history of colonisation or neonatal GBS infection.

2.3. 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 be offered IAP.
- Treatment of asymptomatic bacteriuria in pregnancy reduces the risk of maternal pyelonephritis. Therefore women with significant bacteriuria should receive antibiotic treatment appropriate to the organism identified. Women treated in pregnancy for GBS bacteriuria should also be offered Intrapartum Antibiotic Prophylaxis (IAP).
- Erythromycin should be offered orally for 10 days following a diagnosis of preterm pre-labour rupture of membranes.

2.4. Antenatal “flagging” of women who should be offered IAP

The following women should be clearly identified as eligible for intra-partum antibiotic therapy:
- Women with previous baby affected by neonatal GBS disease;
- Women with GBS on rectal or high vaginal swab in current pregnancy;
• Women with GBS bacteriuria in current pregnancy.
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 a letter
sent to the delivery suite ‘risk’ folder.
When antibiotics are administered during labour this should be signed for on the
prescription chart and documented in the woman’s intrapartum records.

2.5. Intrapartum care to prevent neonatal EOI
• Women presenting with pre-labour rupture of membranes (PROM) at > 37
weeks who have had GBS detected in their urine or on swab in the current
pregnancy or have had a previously affected baby, should be offered
immediate induction with oxytocin and IAP. 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.
• Women who present with PROM but have not had GBS detected in their
urine or on swab in the current pregnancy or have not had a previously
infected baby, then induction of labour should be advised 24 hours after
rupture of membranes, unless there is a clinical indication to induce
earlier.
• 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.
• Suspected chorioamnionitis: Women with a fever > 38 oC 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 following delivery.

• Intra-partum antibiotic prophylaxis against early-onset GBS infection: IAP
reduces the risk of neonatal EOI in babies born to women colonized 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.

• Recommended regime for IAP against GBS:
Benzyl penicillin 3g IV then 1.5g at 4 hourly intervals until delivery
If the woman is allergic to penicillin Clindamycin 900mg IV every 8 hours
until delivery

• Definition of “adequate” IAP against GBS: Adequate IAP is defined as at
least one dose of one the above antibiotic regimes, given at least 2 hours
before delivery.

• Indications for IAP to prevent neonatal early-onset GBS infection: IAP
against GBS should be offered to:
• Women who have had a previous baby with invasive GBS infection
• Women who have been found to have GBS colonisation, bacteriuria or infection in the current pregnancy

2.6. Women who are not recommended to receive IAP:
• Women with GBS colonisation, bacteriuria or infection in previous pregnancies or at any other time before the current pregnancy, unless there is a history of neonatal GBS disease.
• Women delivering by elective caesarean section in the absence of labour, regardless of GBS colonisation status in the current pregnancy.

2.7. Antibiotic Timing
• Commence antibiotics at presentation in labour
• If undergoing and induction of labour (IOL) and intrapartum antibiotic prophylaxis for GBS is indicated, this should be administered at the onset of any uterine activity
• Antibiotics should be given at least 2 hours prior to delivery, but treatment for a shorter time may still be beneficial to the neonate.

2.8. Management of the neonate (Neonatal observation chart appendix 3)
Please see ‘RCHT Maternity and Neonatal Clinical Guideline Prevention, 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 Risk Management Midwife</td>
</tr>
<tr>
<td>Tool</td>
<td>• If antenatal risk for GBS identified was a yellow sticker placed on maternity management plan page.</td>
</tr>
<tr>
<td></td>
<td>• If the woman was prescribed intrapartum antibiotics was this documented in the intrapartum records.</td>
</tr>
<tr>
<td></td>
<td>• If routine neonatal observation required was this documented on a newborn observation chart as per the neonatal plan</td>
</tr>
<tr>
<td>Frequency</td>
<td>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</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>• A formal report of the results will be received annually at the Maternity Risk Management and Clinical Audit Forum, as per</td>
</tr>
</tbody>
</table>
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 Risk Management 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 Risk Management 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 Risk
• Management 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 Risk Management Newsletter |

1. **Equality and Diversity**

1.1. 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.

1.2. **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 HAEMOLYTIC STREPTOCOCCUS (GBS) - CLINICAL GUIDELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>7TH July 2016</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>7TH July 2016</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>7th July 2019</td>
</tr>
</tbody>
</table>
| Directorate / Department responsible (author/owner): | Karen Watkins  
Consultant Obstetrician |
| Contact details: | 01872-252729 |
| Brief summary of contents | 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. |
| Suggested Keywords: | Use this section to suggest keywords to be added by the Uploader to aid document retrieval. |
| Target Audience | RCHT | PCH | CFT | KCCG |
| Executive Director responsible for Policy: | Medical Director |
| Date revised: | 7th July 2016 |
| This document replaces (exact title of previous version): | Title of Previous Version OR New Document |
| Approval route (names of committees)/consultation: | Maternity Guideline Group  
Obs & Gynae Directorate  
Divisional Board for noting |
| Divisional Manager confirming approval processes | Head of Midwifery |
| Name and Post Title of additional signatories | Not required |
| Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings | {Original Copy Signed}  
Name: Helen Ross-McGill |
| Signature of Executive Director giving approval | {Original Copy Signed} |
| Publication Location (refer to Policy on Policies – Approvals and Ratification): | Internet & Intranet ✓ Intranet Only |
| Document Library Folder/Sub Folder | Clinical/Midwifery & Obstetrics |
| Links to key external standards | CNST 5.4 |
| Related Documents: | • NICE (CG149): Antibiotics for early-onset neonatal infection.  
   • RCOG Green Top Guideline No36: The prevention of early-onset neonatal Group B Streptococcal Disease  
   • RCOG Green Top Guideline No44: Preterm prelabour 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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<tbody>
<tr>
<td>April 2006</td>
<td>V1.0</td>
<td>Initial document</td>
<td>Paul Munyard Consultant Neonatologist</td>
</tr>
<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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</tbody>
</table>

**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**

This document has been created following the Royal Cornwall Hospitals NHS Trust
## Appendix 2. Initial Equality Impact Assessment Form

<table>
<thead>
<tr>
<th>Directorate and service area: Obs &amp; Gynae Directorate</th>
<th>Is this a new or existing Policy? Existing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of individual completing assessment: Karen Watkins</td>
<td>Telephone: 01872-252729</td>
</tr>
</tbody>
</table>

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) Is consultation required with the workforce, equality groups, local interest groups etc. around this policy?
   
   No

   b) If yes, have these *groups been consulted?
   
   N/A

   C). Please list any groups who have been consulted about this procedure.
   
   N/A

7. **The Impact**
   
   Please complete the following table.

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Rationale for Assessment / Existing Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>X</td>
<td></td>
<td>All pregnant women and their new-born babies</td>
</tr>
</tbody>
</table>

GROUP B HAEMOLYTIC STREPTOCOCCUS (GBS) - CLINICAL GUIDELINE
Page 8 of 10
<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>All pregnant women and their new-born babies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong> (male, female, transgender / gender reassignment)</td>
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<td></td>
</tr>
<tr>
<td><strong>Race / Ethnic communities /groups</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Disability</strong> - Learning disability, physical disability, sensory impairment and mental health problems</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Religion / other beliefs</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Marriage and civil partnership</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Pregnancy and maternity</strong></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</strong></td>
<td>X</td>
<td></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 service redesign or development

8. Please indicate if a full equality analysis is recommended. | Yes | No |
--- | --- | --- |
9. If you are not recommending a Full Impact assessment please explain why. | N/A |

Signature of policy developer / lead manager / director Karen Watkins

Date of completion and submission 7th July 2016

Names and signatures of members carrying out the Screening Assessment
1.  
2.  

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

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

Signed: Sarah-Jane Pedler

Date: 7th July 2016
Appendix 3

**Neonatal observation chart**

Patient ID sticker

Observations at **1hr, 2hrs then 2 hourly for 10 hours** (12 hrs total or as neonatal plan)

**NORMAL**

LIMITS: Centrally pink, flexed, alert when handled

< 3 seconds No nasal flare or recession

30 - 60/min 36.5-37.3°C 90-160/min Sustained interest to feed.

No persistent vomiting

Signature

**DATE & TIME**

General wellbeing, muscle tone and colour

Capillary Refill Time* Chest movements

Respiratory Rate Temperature Heart rate Feeding

- To check Capillary Refill Time press finger tip onto baby’s chest to blanch colour and check colour returns within 3 seconds

- Any baby with deviation from normal limits should be referred to Neonatal SHO/ANNP

At discharge inform parents of need to contact Community Midwife/GP immediately if baby seems at all unwell (reduced feeding, vomiting, lethargic) for late onset symptoms

Name and Signature