Freedom of Information (Scotland) Act 2002
Response to correspondence dated 10 June 2019
Request: Group B Strep Pregnancy
Applicant: Private
Reference: IGTFOISA6391

NHS Tayside has now considered your request dated 10 June 2019.

Extract from Request

“Please would you fill in the spreadsheet found at https://gbss.org.uk/wp-content/uploads/2019/03/Group-B-Strep-Support-FOI-questions.xlsx”

Response

Please see response appended below.


<table>
<thead>
<tr>
<th>Document Ref.</th>
<th>FOISA Exemption Applied</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGTFOISA6391</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Under section 20 (1) of the Act, if you are dissatisfied with the way NHS Tayside has dealt with your request, you have a right to request a review of our actions and decisions in relation to your request, and you have a right to appeal to the Scottish Information Commission.

**A request for an internal review must be made in writing no later than forty working days from receipt of this response and sent to:**

Head of Information Governance  
Maryfield House (South)  
30 Mains Loans  
Dundee  
DD4 7BT

Or by email to informationgovernance.tayside@nhs.net

If you are not content with the outcome of the internal review, you have the right to apply directly to the Scottish Information Commissioner for a decision. The Scottish Information Commissioner can be contacted at:

Scottish Information Commissioner  
Kinburn Castle  
Doubledykes Road  
St Andrews, Fife  
KY16 9DS

Or via the online appeal service: [www.itstpublicknowledge.info/Appeal](http://www.itstpublicknowledge.info/Appeal)

If you have any queries about this correspondence, please contact:

Information Governance Team  
Maryfield House  
30 Mains Loan  
Dundee  
DD4 7BT

Telephone - 01382 424413  
E-mail: informationgovernance.tayside@nhs.net

Information Governance  
NHS Tayside  
11 July 2019
Please supply a copy of your guideline(s) relating to group B Strep during pregnancy, labour, and in newborn babies

Guidelines appended below.

Please provide the date when your guidelines relating to group B Strep during pregnancy and labour was last updated

Date: 01/08/2018

Please provide the date when your guidelines relating to group B Strep during pregnancy and labour is due to be updated

Date: 2021

Do you provide information materials routinely to pregnant women about group B Strep as a routine part of antenatal care?

Y(es) or N(n): Yes

Do you provide ALL pregnant women with information materials about group B Strep?

Y(es) or N(n): Yes

a) If not to all pregnant women, do you provide them to women who have previously had a baby with GBS infection?

Y(es) or N(n): N/A

b) If not to all pregnant women, do you provide them to women where GBS has been detected during the current pregnancy (swab or urine)?

Y(es) or N(n): N/A

c) If not to all pregnant women, do you provide them to women who are in preterm labour?

Y(es) or N(n): N/A

d) If not to all pregnant women, do you provide them to women whose waters break early?

Y(es) or N(n): N/A

e) If not to all pregnant women, do you provide them to women who request information?

Y(es) or N(n): N/A

Please supply copies of the information materials (physical and/or digital) which are given to women about GBS as a routine part of antenatal care.


What was the Trust/Board's recorded number of early-onset GBS infections (EOGBS infections develop in babies aged 0-6 days) and late-onset GBS infection (LOGBS infections develop in babies aged 7-90 days) for 2017 and 2018. This may include those who developed GBS infection while in hospital, and those who were brought to hospital (i.e. fell ill after going home). Please also supply your declared total number of births.

No of EOGBS infections 2018: Ready steady baby

No of LOGBS infections 2018: 3891
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the Trust/Board offer culture-based GBS testing for GBS carriage in late pregnancy to women where GBS was detected in a previous pregnancy?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does the Trust/Board offer culture-based GBS testing for GBS carriage in late pregnancy to women in any other circumstances?</td>
<td>No</td>
</tr>
<tr>
<td>If the Trust/Board undertakes GBS testing for GBS carriage in late pregnancy, which of the following specimen types do you collect?</td>
<td></td>
</tr>
<tr>
<td>a) Vaginal Swab</td>
<td>Yes</td>
</tr>
<tr>
<td>b) Rectal Swab</td>
<td>No</td>
</tr>
<tr>
<td>c) Both Vaginal and Rectal Swab</td>
<td>No</td>
</tr>
<tr>
<td>d) Other (please state)</td>
<td>No</td>
</tr>
<tr>
<td>Is testing for GBS carriage within the accredited scope of the Microbiology laboratory?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does the Microbiology laboratory use an automated specimen processor (e.g. WASP)?</td>
<td>No</td>
</tr>
<tr>
<td>If the Microbiology lab uses an automated specimen processor, does it allow enrichment broth inoculation?</td>
<td></td>
</tr>
</tbody>
</table>
Guideline: Group B Streptococcus (GBS) in pregnancy

Authors:
- Dr Ailie Grzybek, ST3 Obstetrics and Gynaecology
- Dr Arpana Singh, Speciality Trainee Obstetrics and Gynaecology
- Dr Antony Nicoll, Consultant Obstetrics and Gynaecology

Review Date: August 2021

Review Group: Ratification Group

Last Update: August 2018

Issue Number: 2
1. INTRODUCTION:

The Lancefield group B beta-haemolytic streptococcus infection (*Streptococcus agalactiae*) is the commonest cause of severe infection in neonates less than 7 days of age, known as early onset group B streptococcal (EOGBS) disease.

The incidence of EOGBS is increasing. In the UK and Ireland the incidence of EOGBS is 0.57 per 1000 births. More than one in five infants with EOGBS are born prematurely and more than one third are born to women with risk factors including previous baby affected by GBS disease, GBS bacteriuria, a positive vaginal swab for GBS and an intrapartum maternal temperature of ≥38°C.

The risk of EOGBS disease in preterm infants is approximately 2.3 per 1000 and the mortality rate is increased (20–30% versus 2–3% at term).

Intrapartum antibiotic prophylaxis (IAP) has been shown to significantly reduce the risk of EOGBS disease (but not late onset GBS disease) and there is some evidence to demonstrate that IAP is associated with a reduction in mortality associated with EOGBS.

2. AIM:

This guideline aims to help doctors and midwives identify which women may benefit from IAP to protect the newborn from EOGBS.

3. GUIDELINES:

3.1 Antenatal Care:

All pregnant women should be provided with an appropriate information leaflet such as the RCOG GBS patient information leaflet ([https://www.rcog.org.uk/en/patients/patient-leaflets/group-b-streptococcus-gbs-infection-in-newborn-babies/](https://www.rcog.org.uk/en/patients/patient-leaflets/group-b-streptococcus-gbs-infection-in-newborn-babies/)).

Routine universal screening for asymptomatic carriage of GBS is **not** recommended. Furthermore, in a woman who has not previously been identified as a carrier of GBS, maternal request is not an indication for bacteriological screening.

Following the antenatal identification of GBS the laboratory should contact the requesting source to enable prompt treatment if an MSSU is positive for GBS and to ensure that an appropriate plan is made for antenatal care, labour and birth.

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

Clinicians should also offer IAP to women with GBS bacteriuria (ie \(\leq 10^4\) cfu/ml) identified during the current pregnancy. These women do not require antibiotics at the time GBS is identified.

**b. Antenatal detection of GBS on a vaginal or rectal swab:**

Where GBS carriage is detected incidentally or by intentional testing, women should be offered IAP.

GBS found incidentally on vaginal or rectal swab should **not** be treated antenatally but the woman should be given information regarding GBS so she can decide whether to have IAP.

Women found to have GBS in the current pregnancy should be counselled regarding EOGBS. Women should be aware that:

The risk of EOGBS with GBS found on vaginal swab if the woman opts not to have IAP is approximately **1 in 400**.

**c. For women who have had GBS identified in a previous pregnancy:**

These women should be informed that the likelihood of maternal GBS carriage in the current pregnancy is **50%**.

These women should be offered either IAP or bacteriological testing in late pregnancy (35-37 weeks or 32-34 weeks if twins).

- If these women screen positive for GBS in late pregnancy - offer IAP.
- For women who had GBS identified in a previous pregnancy who screen negative for GBS in late pregnancy the risk of EOGBS is approximately **1 in 5000**.

**3.2 Intrapartum Care:**

Health professionals should be aware of clinical **risk factors** that appear to place women at increased risk of having a baby with EOGBS disease. These include:
• a previous baby with GBS disease
• GBS carrier status during pregnancy (a positive swab or MSSU)
• preterm birth
• prolonged rupture of membranes
• suspected maternal intrapartum infection, including suspected chorioamnionitis
• Pyrexia (maternal temp >38°C)

When considering these risk factors for EOGBS the following women should be **strongly recommended** to receive IAP:

• Previous baby infected with GBS
• GBS bacteriuria in current pregnancy
• All women with pre-term labour (<37 weeks)
• Known asymptomatic carrier in current pregnancy with spontaneous rupture of membranes (SRM) > 24 hours (>18 hours if PPROM <37 weeks)
• Known asymptomatic carrier in current pregnancy with intra-partum pyrexia (≥38°C)

The following women should be **offered** IAP:

• Known GBS asymptomatic carrier in current pregnancy
• GBS identified in previous pregnancy and no screening
• GBS identified in previous pregnancy and positive GBS screening in third trimester

If a woman wishes to have IAP she:

• Can deliver in the medical labour suite, Ninewells Hospital or in the Dundee Midwife Unit Ninewells Hospital.
• Requires IV access in labour
• Receive antibiotics throughout labour until birth

If a woman is a carrier of GBS and chooses not to have IAP then she can choose to deliver in a midwife-led unit and this choice should be respected. However, the woman should be made aware that if other risk factors for EOGBS were to develop (see above) she would be strongly advised to transfer to labour suite, Ninewells Hospital, to receive IAP. The woman should also be advised that her baby should be closely observed for a period of at least 12 hours following birth and the woman should be discouraged from seeking early discharge as the baby may require antibiotics – refer to “Neonatal infection: Full Guidance on Risk Assessment and Management.” (CTRL + click to follow link).

Management of pre-term labour (including pre-term rupture of membranes):

IAP is recommended in women with confirmed pre-term labour, irrespective of GBS carrier status.

Preterm prelabour rupture of membranes should be treated as per NHST Preterm PROM Guideline with oral erythromycin followed by GBS prophylaxis when admitted in labour.

Induction of Labour:

Membrane sweeping is not contraindicated in women who are carriers of GBS and should be offered in line with NHST guidelines.

The method of induction of labour should not vary according to GBS carrier status.

Women who are known GBS carriers who present with spontaneous rupture of membranes at term should be offered immediate IAP and immediate induction of labour (as soon as reasonably possible). Women who agree to immediate induction should receive Propess for 12 hours and commence IAP on the antenatal ward prior to insertion of Propess. Antibiotics should be continued until birth.

In women with spontaneous rupture of membranes at term where GBS carrier status is negative or unknown, management as per NHST guideline for the same is appropriate.

IAP should be given prior to, or at the time of amniotomy in women with known GBS being induced or having augmentation of labour.

### 3.3 Intrapartum antibiotic prophylaxis (IAP):

For women who require or have agreed to IAP, Benzylpenicillin should be administered.
• 3 g intravenous Benzylpenicillin should be given as soon as possible after the onset of labour or rupture of membranes and 1.5 g 4 hourly until birth.

**If penicillin allergy:**

The antibiotic chosen will depend on the confidence of the diagnosis of penicillin allergy and the severity of the suspected penicillin allergy.

If the history suggests that the reaction described is not likely to be allergic in nature (e.g. vomiting only) then penicillin should be given (as above).

If the history suggests an allergy to beta-lactams, but one that is not severe (i.e. no anaphylaxis, angioedema, respiratory distress or urticaria), then a cephalosporin can be administered intravenously

(e.g. cefuroxime, 1.5 g loading dose followed by 750 mg every 8 hours).

**For women with severe Penicillin allergy:**

Clindamycin has previously been the antibiotic of choice for IAP for GBS for women with a severe allergy to Penicillin. In the UK the resistance rate for Clindamycin is now 16%.

For all women when GBS is identified, sensitivity to Clindamycin should be assessed.

- **Women with severe Penicillin allergy with confirmed GBS**, with confirmed sensitivity to Clindamycin should receive intravenous Clindamycin (900mg tds) for IAP.
- **Women with severe Penicillin allergy and unknown GBS status or women with GBS that is resistant to Clindamycin** should receive intravenous Teicoplanin, 12 mg/kg (based on current weight, maximum = 800mg) every 12 hours for 3 doses and then 24 hourly until birth.

IV antibiotics should be commenced once labour has established and ideally administered at least 4 hours prior to birth.

Women who require or agree to IAP should be advised to attend as soon as membranes have ruptured and/or in early labour.

Clinicians should be aware of the potential adverse effects of IAP including anaphylaxis.

**Caesarean Section:**

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Dr Arpana Singh Speciality Trainee Obstetrics and Gynaecology
Dr Antony Nicoll, Consultant Obstetrics and Gynaecology
Antibiotic prophylaxis specific for GBS is not required for women undergoing planned caesarean section (both Term and preterm) in the absence of labour and with intact membranes.

3.4 Neonatal Care for women with known GBS:

Term babies who are clinically well at birth and whose mothers have received IAP for prevention of EOGBS disease more than 4 hours before birth do not require special observation.

For women that have had less than 4 hours of IAP, the baby should be observed for at least 12 hours following birth for signs of infection and may require antibiotics – refer to “Neonatal Infection: Full Guidance on Risk Assessment and Management.” (CTRL + click to follow link).

Well, healthy term babies born to women known to be asymptomatic carriers of GBS who have not received antibiotics should be closely observed following birth for signs of EOGBS in the first 12 hours following birth: refer to “Neonatal Infection: Full Guidance on Risk Assessment and Management.” (CTRL + click to follow link)

Commence NEWS chart and observations (pulse, respiratory rate and temperature) at 0, 1 and 2 hours and then 2 hourly until 12 hours of life

- One non-red flag risk factor (see appendix 1): observe for 12 hours as above.
- One red or two or more non-red flag risk factors (see appendix 1) or concerns regarding observations: management as per departmental policy “Neonatal Infection: Full Guidance on Risk Assessment and Management.” (CTRL + click to follow link). Contact 4201 bleep holder for prompt review of newborn.

Breastfeeding should be encouraged irrespective of GBS status.

4. REFERENCES:


5. AUTHORS:

Author: Dr Ailie Grzybek, ST3 Obstetrics and Gynaecology
Dr Arpana Singh Speciality Trainee Obstetrics and Gynaecology
Dr Antony Nicoll, Consultant Obstetrics and Gynaecology
6. **APPENDIX 1 (Red flag risk factors for EOGBS):**

<table>
<thead>
<tr>
<th>Red flag risk factors:</th>
<th>Non Red Flag Risk Factors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborns of women treated with IV antibiotics for suspected invasive bacterial infection during labour or in the 24 hours prior to or after labour.</td>
<td>Ruptured membranes more than 24 hours in Term infant</td>
</tr>
<tr>
<td>Those that develop respiratory distress in first 4 hours of life.</td>
<td>Preterm birth &lt;37 weeks gestation</td>
</tr>
<tr>
<td>Cases of multiple birth where one neonate is suspected of having infection.</td>
<td>Suspected or confirmed prolonged rupture of membranes &gt;18 hours in preterm birth</td>
</tr>
<tr>
<td></td>
<td>Maternal intrapartum pyrexia ≥38°C</td>
</tr>
<tr>
<td></td>
<td>Confirmed or suspected chorioamnionitis</td>
</tr>
<tr>
<td></td>
<td>GBS in this pregnancy: colonization, bacteriuria or infection</td>
</tr>
<tr>
<td></td>
<td>Previous baby with invasive GBS</td>
</tr>
</tbody>
</table>
7. APPENDIX 2 - Summary of Management of Women with GBS in current pregnancy, previous pregnancy or previous infant affected by GBS

**IAP for GBS:** See Appendix 4

Penicillin G (Benzylpenicillin) 3 g IV followed by 1.5 g IV every 4 hours.

In women with history of Penicillin allergy:
- Non severe reaction: Cefuroxime 1.5g loading dose followed by 750mg IV every 8 hours
- Severe reaction: IV Clindamycin 900mg tds or Teicoplanin 12mg/kg 12 hourly for 3 doses then 24 hourly

**Treat GBS UTI**
**Recommend IAP for GBS UTI as well as GBS bacteriuria**

**Previous infant affected by GBS**
- Yes and IAP
- No

**GBS positive in previous pregnancy**
- Yes or swab 35-37
- No

**GBS positive in current pregnancy**
- Yes - HVS
- No

**Do not treat HVS**
**Offer IAP**

**Document in notes**
- Labour suite birth
- Labour in notes
- Wife-led care and birth if wishes
- Divise 12 hours observation of newborn recommended
- Vigilance for further risk factors: no >24 hours, maternal pyrexia in labour (>38°C), suspected chorioamnionitis, prelabour SRM at term
- Maternal transfer to Labour suite and IAP if occur

**Infants born to women with GBS who have declined or had <4h IAP:**
- Commence NEWS chart: observations at 0, 1 and 2 hours and 2 hourly until 12 hours.
- Contact neonatal team (bleep 4201) for review if one red flag risk factor or two non red flag risk factors or concerns re neonatal observations.
- See appendix 1 for red and non red flag risk factors.
- Refer to departmental policy (CTRL + click to follow link): "Neonatal Infection: Full Guidance on Risk Assessment and Management."

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Dr Arpana Singh Speciality Trainee Obstetrics and Gynaecology
Dr Antony Nicoll, Consultant Obstetrics and Gynaecology

Maternity Guidelines
Version: V1
Document ID:
Authorisation: Tayside Maternity Ratification Group
8. APPENDIX 3 – PATHWAYS OF CARE:
9. APPENDIX 4 - Intrapartum Antibiotic Prophylaxis for GBS

- Does criteria and consents to GBS prophylaxis?
  - NO: Document decision
  - YES: Patient is allergic to penicillin?
    - NO: Refer to guidance document
    - YES: Consider severity of allergy
      - YES: Refer to guidance document

- YES
  - Patient is allergic to penicillin?
    - YES: 3g followed by 1.5g 4 hourly until birth
    - NO: History of anaphylaxis or angiodema
      - NO: Previous GBS sample is clindamycin sensitive?
        - YES: Consider alternatives
        - NO: 3g followed by 1.5g 4 hourly until birth
      - YES: 3g followed by 1.5g 4 hourly until birth

- NO
  - History of anaphylaxis or angiodema
    - YES: 3g followed by 1.5g 4 hourly until birth
    - NO: Previous GBS sample is clindamycin resistant?
      - YES: Consider alternatives
      - NO: 3g followed by 1.5g 4 hourly until birth

References:
- RCOG 2017
- Local opinion
- Developed by: AMG/Obstetrics Nov 2018
- Review: Nov 2020

Author: Dr Ailie Grzybek, ST3 Obstetrics and Gynaecology
Dr Arpana Singh Speciality Trainee Obstetrics and Gynaecology
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