WOMEN'S HEALTH & PAEDIATRICS

MATERNITY UNIT

Prevention of Early onset Neonatal Group B Streptococcus Infection

Amendments			
Version	**Date**	**Comments**	**Approved By**
1	October 2007		
2	June 2015		Women's Health Governance Group
3	May 2019	Whole document review and inclusion of the updated 2017 RCOG GBS guideline	Women's Health Governance Group
4	April 2020	Whole document review to align with pathways for obstetric referral. ***Due to Covid-19 there are limitations on clinical capacity to follow full RCOG guidance. Service provision will be focused on IAP for high risk women (pre-term birth, previous affected neonate and current GBS colonisation in this pregnancy) This will be reviewed again in 6 months***	Women's Health Governance Group
5	August 2021	Whole document review with minor changes	Perinatal Governance Group

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In consultation with: Perinatal Governance Group

Ratified by: Perinatal Governance Group

Date ratified: **August 2021**

Next review date: **August 2024,** or if legislation, national guidance or lessons learnt indicate an earlier review**.**

Target audience: All health professionals within the maternity services

Equality impact assessment: Perinatal Governance Group

Comments on this document to: Perinatal Governance Guideline Group

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See also:

- Sepsis Guideline and Sepsis Six Pathway
- Care in Labour
- Neonatal Intensive Care Unit Clinical Guideline for Early onset sepsis in Neonates

Prevention of Early onset Neonatal Group B Streptococcus Infection

1.0 Introduction

Group B Streptococcus infection (GBS) is the most frequent cause of severe early onset infection in neonates (up to seven days old).

- 20-40% of adults have GBS present in their bowel flora (colonisation).
- Spread is transperineal so rectal and low vaginal swabs have a higher yield than high vaginal and cervical swabs.
- It is also found in urine - GBS bacteriuria, which is associated with a higher risk of neonatal disease.
- The incidence of early-onset GBS in the UK and the Republic of Ireland is 0.57/1000 births, which is equivalent to approximately 517 babies per annum. However, in the presence of one or more of the major risk factors below the risk is increased substantially, and may be as high as 40 per 1000.
    - Preterm birth (before 37 weeks).
    - Prolonged rupture of the membranes.
    - Pyrexia.
    - Suspected maternal intrapartum infection, including suspected chorioamnionitis.
    - GBS found in current pregnancy on vaginal swabs or in the urine.
    - Previous baby with GBS disease.

Approximately 60% of UK early-onset GBS cases have one or more of the above risk factors. Of those neonates affected, approximately two-thirds will present within 7 days of birth (early onset disease), while the remaining one-third present after the first week (late onset disease). The overall mortality rate is 9.4% (6% term, 18% preterm).

2.0 Bacteriological screening

- Internationally there is no clear consensus as to the role of routine screening for GBS in pregnancy.
- If a woman has been GBS positive in a previous pregnancy, the likelihood of maternal GBS carriage in this pregnancy is 50% so offer bacteriological testing at 35-37 weeks or 3-5 weeks prior to anticipated delivery date if earlier. This should be in the form of a lower vaginal AND anorectal swab. This can be done at their community midwifery appointment at 36 weeks.
- Women who present with SROM and no labour ≤36+5 with previous colonisation and unknown status in the current pregnancy.
- Maternal request alone is not an indication for GBS screening.
- Currently we are not offering Enriched Culture Medium testing. Should a woman wish to have ECM testing it will need to be done privately, details are available via www.gbss.org.uk

3.0 Management

- Intrapartum antibiotic prophylaxis (IAP) intervention significantly reduces the risk of culture-positive early onset but not late onset disease (more than seven days after birth).
- IAP has been shown to reduce the incidence of early onset GBS but has not been shown to reduce mortality.

Whom to treat with IAP

- **Women with a previous baby with early or late onset GBS disease.**
- **ALL women in confirmed pre-term labour (less than 37 weeks**). Risk of GBS disease in preterm deliveries is 2.3 per 1000. Mortality rate from infection is increased (20-30% vs 2-3% at term). Antibiotics to start when active labour is confirmed (i.e. >4cm dilated) and not when only suspecting preterm labour.
- **Women with positive GBS bacteriology in CURRENT pregnancy.**
- **Rupture of Membranes (term and pre-term):**

Women known to be colonised with GBS with spontaneous rupture of membranes at term should be offered immediate IAP and induction of labour as soon as reasonably possible.

In women colonised with GBS in this or a previous pregnancy, with preterm rupture of membranes before 34 weeks, the perinatal risks of preterm delivery likely outweigh the benefits unless there are other clinical reasons for delivery.

After 34+0 weeks, offer immediate delivery by the most appropriate route (IOL/LSCS) based on current/previous obstetric history.

Other situations:

No antenatal antibiotic treatment is necessary for asymptomatic women who are identified as GBS carriers on vaginal swabs taken during the pregnancy. A positive antenatal MSU should be treated, irrespective of any symptoms. The treatment should include Amoxicillin 500 milligrams TDS for 7 days (unless allergy).

1. **GBS positive bacteriology in PREVIOUS pregnancy.**

Likelihood of maternal GBS carriage in this pregnancy is 50%. Offer options of screening as above OR Intrapartum Antibiotic Prophylaxis (IAP).

Inform the woman that risk is 2 – 2.5 times higher than general population of early onset GBS disease in her baby, incidence of 1 affected infant in 700-800 deliveries where the mother had a positive swab in previous pregnancy.

2. **Elective caesarean sections**

Women undergoing planned caesarean section in the absence of labour or membrane rupture DO NOT require GBS antibiotic prophylaxis, irrespective of their GBS status, since the risk of neonatal GBS disease is extremely low.

4.0 Intrapartum antibiotics

3g IV Benzylpenicillin stat after onset of labour followed by 1.5g IV Benzylpenicillin 4hourly until delivery.

In penicillin-allergic women, a cephalosporin should be used - Cefuroxime 1.5 g loading dose followed by 750 mg every 8 hours till birth.

If she has had a severe allergic reaction (swelling of the skin or throat, difficulty breathing, and/ or fainting/low blood pressure), in which case, Vancomycin 1g every 12 hours should be used.

If chorioamnionitis is suspected, give broad spectrum antibiotic therapy, Amoxicillin 1g IV QDS, Metronidazole 500mg IV TDS and Gentamicin single dose 5mg/kg – please microguide for maternity.

5.0 Management of a positive swab result

When a history of GBS carriage is elicited in the present pregnancy (positive HVS and/or MSU), or where there has been a previously infected baby it is important that the following steps are taken:

1. Place alert on BadgerNet
2. Highlight the need for intrapartum antibiotic prophylaxis in the intrapartum management plan on Badgernet
3. Ensure that the woman is fully informed and signpost to GBS Society on www.gbss.org.uk where patient information leaflets are available
4. Inform community midwife (and GP if positive urine culture as these women will need immediate oral antibiotics as above).
5. Membrane sweeping is not contraindicated in women who are carriers of GBS.
6. Delivery in the Abbey Birth Centre and use of a birthing pool is not contraindicated if the woman is a known GBS carrier provided she is offered appropriate IAP

6.0 References

Royal College of Obstetricians and Gynaecologists, (2017) The Prevention of Early-onset Neonatal Group B Streptococcal Disease, RCOG

National Institute of Health and Care Excellence, (2014) Intrapartum care: care of healthy women and their babies during childbirth, NICE

http://www.cemach.org.uk/Publications-Press-Releases/Emergent-Theme- Briefings/Microsoft-Word---H1N1-ETCB_v4-IM-RD.aspx

RCOG Green Top Guidelines 64B/64A April 2012 Sepsis in Pregnancy and Following Pregnancy

7.0 Monitoring compliance with this Policy

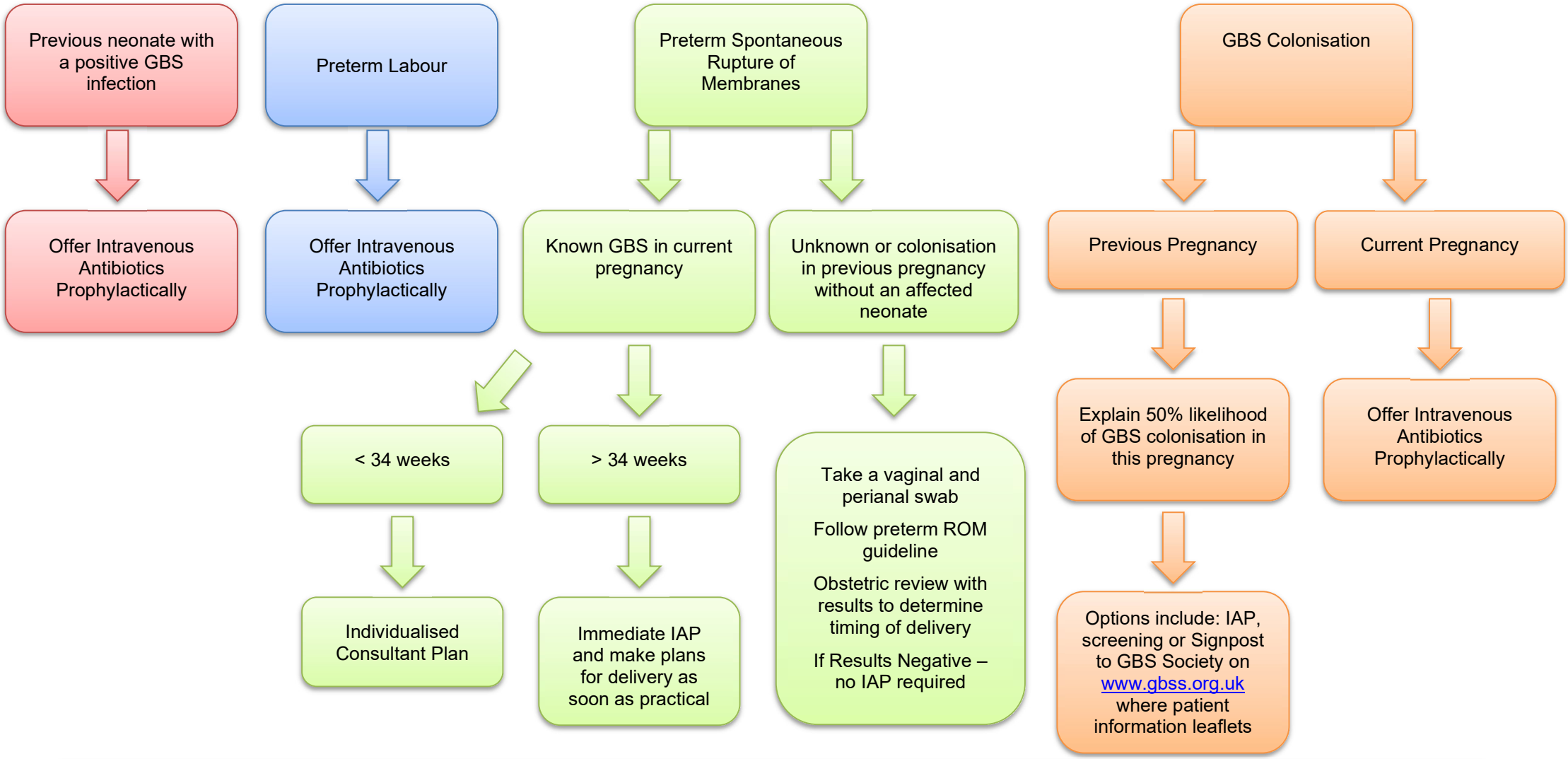
Measurable Policy Objective	Monitoring/ Audit method	Frequency of monitoring	Responsibility for performing the monitoring	Monitoring reported to which groups/ committees, inc responsibility for reviewing action plans
All mothers in the agreed criteria should be offered intrapartum antibiotics. All women in preterm labour should be offered intrapartum antibiotics for GBS. All women known to be GBS positive with spontaneous membrane rupture at term should be offered immediate IOL. All mothers with known GBS or parents of a baby with GBS should be given the GBS information leaflet.	Badgernet Neonatal notes	Annually 1% of all health records of women and neonates diagnosed with GBS	Obstetric Audit Lead	The completed reports will go to the quality and safety group and be presented at the departmental audit meetings. Action plans will be documented in minutes.

EQUALITY IMPACT ASSESSMENT

Name and title: Prevention of Early onset Neonatal Group B Streptococcus Infection

Background • Impact Equality Assessment undertaken by Alex Bell in consultation with WHGG/SOM's
• This guideline aims to provide guidance when managing all women who is found to be positive to GBS in the antenatal and intrapartum period **or,** who has been GBS positive in a previous pregnancy. **All** women who are known to be GBS positive will be managed according to this guideline.
Methodology • This guideline affect all women irrespective of race, ethnic origin, disability, gender, culture, religion or belief, age or sexual orientation
Key Findings • No Impact Identified
Conclusion • No Impact Identified
Recommendations • No impact identified

Flow Chart for the management of Group B Streptococcus Infection prior to delivery



Planned / Emergency Caesarean Section at Term with intact membranes, regardless of GBS status, does not require antibiotics