GROUP B STREPTOCOCCUS (GBS) SCREENING AND PROPHYLAXIS

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. OPTIMAL OUTCOMES
   - Prevention of early onset Group B Streptococcus (GBS) infection in the neonate

2. PATIENT
   - Pregnant woman

3. STAFF
   - Registered Midwives
   - Student Midwives
   - Medical Staff

4. EQUIPMENT
   - Bacterial (blue top) swab
   - Intravenous cannula

5. CLINICAL PRACTICE
   Detection and Screening
   - Discuss reasons for GBS screening with the woman
   - Offer and recommend low vaginal swab (LVS) to screen for GBS:
     - Between 35 and 37 weeks gestation
     - With preterm pre-labour ruptured membranes
   - Do not offer screening to women with GBS Urinary Tract Infection (UTI) during index pregnancy or to women with a previous GBS affected baby: treat these women as GBS positive
   - Perform LVS (by the woman or by staff):
     - Insert swab 2cm into vagina. Do not touch cotton end with fingers, ensure cap fits firmly, make sure swab is correctly labelled
     - Consider performing peri-anal swab AFTER vaginal swab where women consents and woman or staff feels confident with technique and after woman has been informed that this improves the detection rate (one swab only to be used)
   - Document reasons for declining screening in antenatal records where appropriate
   - Confirm and document the GBS status at following antenatal visit and discuss need for antibiotic prophylaxis where necessary and offer Patient Information Leaflet (Appendix 1)
   - Request sensitivity testing in women with penicillin allergy

Intrapartum chemoprophylaxis is indicated for the following women
   - Positive GBS vaginal or rectal screening culture during current pregnancy
   - GBS bacteriuria during any trimester of the current pregnancy
   - Previous infant with invasive GBS disease
   - Unknown GBS status and any one of the following:
     - Temperature ≥38 degrees in labour
     - Rupture of membranes ≥18 hours before birth
     - Preterm labour before 37 weeks
GROUP B STREPTOCOCCUS (GBS) SCREENING AND PROPHYLAXIS  cont’d

Intravenous antibiotics
- Administer intrapartum IV antibiotics, ideally starting ≥4 hours prior to birth, until birth:
  - Benzylpenicillin 1.2 grams intravenously then 600mg 4th hourly
  - OR
    - If Penicillin allergic administer Lincomycin 600mg IV, 8 hourly until delivery. (If >4 doses are required, seek ID approval)
  - OR
    - If Penicillin allergic and GBS is Lincomycin/Clindamycin resistant, administer Erythromycin 500mg IV, 6 hourly until delivery

Induction of labour for multiparous women who are GBS positive
- Recommend antibiotics commence prior to Artificial Ruptured Membranes (ARM) being performed or upon Spontaneous Ruptured of Membranes (SROM)

Induction of labour for ruptured membranes at term
- Offer and recommend induction of labour to all GBS positive women within 24 hours of ruptured membranes

Intrapartum antibiotic prophylaxis for GBS is not required for women:
- Having an elective caesarean section in the absence of ruptured membranes or labour because the risk of neonatal GBS is low. Routine swab collection is not required at 35-37 weeks gestation for booked caesareans. (usual antibiotic prophylaxis for caesarean section is recommended)
- Women who have a history of GBS colonisation in a previous pregnancy, who have screened negative this pregnancy

Arrange appropriate follow-up for neonate. Adequate intrapartum chemoprophylaxis is defined as penicillin ≥4 prior hours prior to delivery

6. DOCUMENTATION
   - Integrated Clinical Notes
   - Adult Medication Chart
   - ObstetriX

7. EDUCATIONAL NOTES
   - This LOP refers to GBS screening and treating only. If the woman has clinical chorioamnionitis, sepsis or fever in labour when GBS is known to be negative, appropriate work-up and treatment should be instigated
   - GBS is a significant cause of perinatal morbidity and mortality
   - 10-30% of women are asymptomatic carriers of GBS
   - If untreated 1 in 100 infants of mothers known to be GBS positive will develop neonatal sepsis
   - Intrapartum chemoprophylaxis minimises early onset neonatal sepsis
   - Clinical risk factors for early onset neonatal GBS (mortality 5-20%)
     - Gestation ≤37 weeks
     - Ruptured membranes ≥18 hours
     - Maternal fever ≥38 degrees during labour
     - Previous GBS infected baby
     - GBS bacteriuria
   - Resistance to penicillin (including Amoxycillin) is rarely seen. Local data suggests up to 12% of GBS is resistant to clindamycin, and 13% is resistant to erythromycin
   - Women and staff need to be aware that the sensitivity of LVS is only around 70%. This can be increased to around 85% by sequential addition of perianal swab
   - A negative GBS screen is considered valid for 5 weeks.
8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Administration of Intravenous Antibiotics
- GBS: Monitoring and Management of Neonates at Risk of Group B Streptococcus
- Ruptured Membranes at Term not in Established Labour
- Preterm Premature Rupture of Membranes (PPROM) – Assessment and Management Guideline
- Sepsis
- Bundle for Caesarean Section
- Antibiotic Guidelines

9. REFERENCES

2. RANZCOG College Statement C-Obs 19. Revised 2011: Screening and Treatment for Group B Streptococcus in Pregnancy

REVISION & APPROVAL HISTORY

Addition to educational notes August 2014
Approved Quality & Patient Safety Committee 20/6/13
Reviewed and endorsed Maternity LOPs Group 18/6/13
Previous title Group B Streptococcus: Guideline for Intrapartum Management
Approved Quality Council 16/5/05
Maternity Services Clinical Committee 19/5/05
Appendix 1

Patient Information Leaflet
Group B Streptococcus Information Leaflet for Women

What is Haemolytic Group B Streptococcus (GBS)?
GBS is a bacterium that lives in the vagina and rectum of 10-30% of Australian women. It is not a sexually transmitted infection. It usually causes no symptoms and is not harmful to the mother. If it is passed from the mother to her baby during labour it can occasionally cause a serious illness for the newborn baby.

What does this mean for my baby?
Many babies will come in contact with GBS during labour and birth. Approximately 1% of babies exposed to GBS at birth will develop an infection. GBS infection is therefore rare. Of the babies who develop an infection a very small number will develop pneumonia or meningitis which can be life threatening. The majority of babies are not harmed by contact with GBS at birth.

Is there a test to see if my baby is at risk of GBS infection?
At the RHW, all women are offered a vaginal and perianal swab at 36 weeks gestation. Your caregiver will explain to you how you can collect the swab yourself.

How can my baby be protected from developing an infection?
If you have tested positive to GBS at any time during this pregnancy you will be offered antibiotics by injection into a vein, in labour, to prevent infection. The usual antibiotic is Penicillin, with Lincomycin or Erythromycin given to women who have an allergy to penicillin. There are also other circumstances in which women are offered antibiotics:
- o if you have GBS on a urine test
- o if you have had a previous baby infected with GBS
- o if you have a fever in labour
- o if there has been no swab and you have ruptured membranes for more than 18 hours
- o if you labour before 37 weeks gestation.

Are there risks with having antibiotics?
Some women will experience side effects such as nausea or diarrhoea. Rarely, an allergic reaction may occur. For most women antibiotics are safe.

Do the antibiotics guarantee that my baby will not develop an infection?
No treatment is perfect. Some women will be given antibiotics and their baby will still develop an infection. Screening and treatment does, however, decrease the small risk of infection.

Do I need antibiotics if I am having an elective Caesarean Section?
Yes, but for different reasons that will be explained to you at the time of caesarean.

What do I do if my swab shows GBS, my waters break and I do not go into labour?
Prolonged rupture of the membranes increases the risk of infection. You will be offered induction of labour within 24 hours.

If I have GBS on a swab, does my baby have extra monitoring after delivery?
If you have had a positive swab for GBS or a high temperature in labour, the midwives will monitor your baby closely on the postnatal ward for 48 hours. If you choose to go home earlier than this and you did not receive antibiotics for at least 4 hours before the birth, you need to discuss this with a paediatrician prior to discharge.

What are the signs of a baby with an infection?
Some of the physical signs of an infection could include: high temperature and difficulty or fast breathing. If you notice this in your baby please alert your midwife or doctor.
NOTE: Where GBS status not known at term, in labour, with intact membranes or ruptured membranes < 18 hours antibiotics are not required

**TERM (≥ 37 Weeks) + GBS POSITIVE OR GBS Status Unknown**

- **Intact Membranes**
  - Not in Labour
    - NO Antibiotics
  - In Labour
    - IV Antibiotics

- **Ruptured Membranes**
  - GBS Positive
    - Not in Labour
      - Plan I.O.L within 24 hrs
  - In Labour
    - IV Antibiotics

- **Unknown GBS status + Ruptured Membranes >18 hrs >18 hours**
  - IV Antibiotics
    - Until GBS status known

- **Previous GBS affected baby Regardless of current GBS status**
  - Not in Labour
    - NO Antibiotics
  - In Labour
    - IV Antibiotics

- **Febrile in Labour ≥ 38º Regardless of GBS status**
  - In Labour
    - IV Antibiotics

**PRETERM (< 37 Weeks) + GBS POSITIVE OR GBS Status Unknown**

- **Membranes Intact**
  - Not in Labour
    - No Antibiotics
  - In Labour
    - IV Antibiotics

- **Ruptured Membranes**
  - Not in Labour
    - Refer to antibiotic guidelines for PPROM
  - In Labour
    - IV Antibiotics

- **Unknown GBS status & Ruptured Membranes**
  - Not in Labour
    - Low Vaginal Swab
      - Refer to antibiotic guidelines for PPROM
  - In Labour
    - IV Antibiotics

- **Previous GBS affected baby Regardless of current GBS status**
  - Not in Labour
    - NO Antibiotics
  - In Labour
    - IV Antibiotics

- **Febrile in Labour ≥ 38º Regardless of GBS status**
  - In Labour
    - IV Antibiotics

**GBS CHEMOPROPHYLAXIS**

- **Benzyl Penicillin 1.2 grams IV**
  - Then 600mg 4 hourly

**PENICILLIN ALLERGY**

- **Lincomycin 8 hourly 600mg IV unless GBS is Lincomycin resistant, then Erythomycin 500mg IV 6 hourly**