GROUP B STREPTOCOCCUS
FLOW CHART

Risk Factors and Management of the Mother and Baby with
Maternal Incidental Group B Streptococcus (GBS)
AND / OR Prolonged Rupture of Membranes (PROM)

Risk Factors:
- GBS isolated in HVS
- PROM >18hrs
- < 37 weeks

ONE
Risk Factor
IPA NOT Required

Observe baby 3hrly
- Resps, temp, pulse + feeding
- Until discharge – minimum 12 hours
- No swabs to be done
- Parent information on discharge

MORE THAN ONE Risk Factor

Maternal Intrapartum Antibiotics (IPA)
SEE Regimes

Risk Factors
- GBS in urine in current pregnancy
- Chorioamnionitis
- Intrapartum Fever >38°
- GBS in previous sibling

Refer to Paediatrician
SEE Separate Paediatric Guidance

Management of Baby may include
- Observation (if maternal IPA > 4hrs before delivery)
- FBC, CRP, Blood Culture
- CXR (resp. symptoms)
- LP +/- discuss with Middle Grade / Consultant
- No swabs to be done
- Parent Information on discharge

N.B.
- If elective Caesarian Section with intact membranes, no chorioamnionitis or maternal fever:
  INVESTIGATION OR TREATMENT NOT REQUIRED
Any Neonate with 2 or more risk factors will be referred to the paediatrican whether IPA have or have not been given
Group B Streptococcus (GBS) is a common type of streptococcus bacteria, which is carried by approximately a third of men and women in the intestines, and by up to 25% of mothers in the UK in their vagina.\(^{(1)}\)

Most GBS infection in neonates can be prevented by giving women in higher risk situations Intra-venous antibiotics at the onset of labour, or with prolonged pre-labour ruptured membranes.

Although GBS is the most common cause of early onset neonatal infection (< 7 days), this happens relatively rarely \(^{(1, 2)}\). Antibiotic prophylaxis in labour will not prevent late onset neonatal disease (> 7 days).

The incidence of early-onset GBS disease in the UK in the absence of systematic screening is comparable to countries such as the USA, where such a policy is in operation. There are disadvantages to the mother and baby that includes potential fatal anaphylaxis, the medicalisation of labour and the neonatal period, and infection with resistant organisms.

**RISK FACTORS**

The combined risk factor approach is recommended. The following risk factors must be taken into account in the presence of Group B Streptococcus

- Intrapartum fever > 38C
- Prolonged rupture of membranes PROM, greater than 18 hours
- Prematurity, less than 37 weeks
- Previous infant with GBS disease
- GBS on HVS
- GBS in Urine

Approximately 60% of UK early-onset GBS have such risk factors. \(^{(1)}\)

**MANAGEMENT**

**Antenatal**

- Routine screening for antenatal GBS is not recommended.

  - Antenatal treatment with penicillin for GBS is not recommended as it has been shown to be ineffective in preventing GBS in babies.

**Intrapartum**

- **Intrapartum antibiotic prophylaxis should be considered if** GBS is detected incidentally in the presence of the above risk factors. The argument for prophylaxis becomes stronger in the presence of two or more risk factors. **(SEE FLOW CHART ON Page 1)**
There is no good evidence to support the administration of intrapartum antibiotics to women in whom GBS carriage was detected in a previous pregnancy.

Women with preterm rupture of membranes, unless in established labour do not require antibiotics.

Antibiotics against GBS as such are not required in women undergoing planned caesarean section in the absence of labour and with intact membranes.

When GBS prophylaxis is required, Penicillin should be administered as soon as possible after the onset of labour. (see Antibiotic Regime)

If chorioamnionitis is suspected broad-spectrum antibiotics, including an agent active against GBS should replace GBS-specific antibiotic prophylaxis. (see antibiotic regime)

The situation should be clarified with a Consultant if there are any queries as to the appropriateness of prophylaxis.

Antibiotic Regime

- Intravenous Penicillin 3g at the onset of labour, and 1.5g four hourly until delivery.
- Clindamycin 900 mg IV eight hourly should be given to those allergic to penicillin.

In cases of Chorioamnionitis or Intrapartum Fever

- Cefuroxime 1.5gms and Metronidazole 500mgs IV eight Hourly.

Management of the newborn infant. (See Flow Chart)

Many infants with early onset GBS disease have symptoms at or soon after birth. 90% of cases of early onset GBS disease present by 12 hours of age.

The Paediatrician should be informed and will follow the recommendations on the flow chart for the management of the Neonate.

References.
1. PHLS Group B Streptococcus Working Group, Interim ‘Good Practice’ recommendations for the prevention of early onset neonatal Group B Streptococcus (GBS) in Uk, June 2001
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Morecambe Bay Children and Young People’s Directorate

Risk factors
- GBS in Mother (HVS/Urine)
- Prolonged rupture membranes (>18hrs)
- Gestation: 35 or 36 weeks

One risk factor

Risk factors
- Gestation <35 weeks
- Chorioamnionitis
- Fever in labour
- Symptomatic neonate
- GBS in previous sibling
- Multiple birth with one having GBS infection

More than one risk factor

Observe 3 hourly
- Resp., temp., pulse and feeding
- Until discharge, minimum 12 hrs
- No swabs to be done
- Parent information at discharge

One risk factor

Blood culture, FBC, CRP
CXR (with resp. symptoms)
LP (discuss with Middlegrade/Consultant)
No swabs to be done

Minimum 48 hours IV
- Penicillin 50 mg/kg twice daily
- Gentamicin 4mg/kg 24-36 hrly
- Parent information at discharge

All cases to be discussed on morning ward round
Any variation from above discuss with Consultant or Middlegrade

GBS: Group B Streptococcus
HVS: High Vaginal Swab
Background

This guideline should be read in conjunction with Midwifery and Obstetric guideline.

Group B streptococcus (streptococcus agalactiae) is the most frequent cause of early-onset (<7 days) infection in newborn infants. The incidence of early-onset GBS (EOGBS) disease in the UK is 5/10,000 births. There is the potential to avoid deaths and morbidity from EOGBS disease. The incidence of late-onset GBS disease in the UK is 2.5/10,000 births.

A risk based approach to management has been adopted in UK.

The risk factors are^9; (with approximate risks):

a) Previous baby with GBS infection (x 10 risk)
b) Pregnant woman with GBS in high vaginal swab (x 4 risk)
c) Pregnant woman with GBS in urine (x 4 risk)
d) Prolonged rupture of membranes (x 3 risk)
e) Maternal pyrexia (T > 37.8 °C) (x 3 risk)
f) Chorioamnionitis during labour (x 3 risk)
g) Prematurity (<37 completed weeks of pregnancy) (x 3 risk)

NB: Intact membranes do not give 100% protection from group B streptococcus infection.
Governance Summary

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Change Approver: Mrs L Shannon, Dr Paul Gibson, Clinical Director

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References

3. Group B Strep Support (Charity support group) - www.gbss.org.uk

Development Summary

1. Author: Dr P Nardeosingh, Dr P Gibson, Dr M Asghar, Mrs J Parkinson, Dr S Chari
2. Impact on: FGH and RLI and WGH: Labour Wards, Post Natal Wards, Neonatal Unit, Microbiology, Pharmacy, Directorate Costs, Drugs & Therapeutics Committee.
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