

CLINICAL GUIDELINES ID TAG	
Title:	Guideline on prevention of Early onset Neonatal Group B streptococcal disease
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Speciality / Division:	Obstetrics-IMWH
Directorate:	Acute Services
Date:	06/11/2019
Consulted upon:	Yes
Authorised by	Dr Meeta Kamath Dr Aoife Curry Wendy Clarke
Applicable to: <i>(delete Yes / No as appropriate)</i>	Dept./Division Only: YES-IMWH
	Directorate Only: NO
	Trust-wide: NO
Review Date <i>(Every 3 years or sooner if required)</i> :	November 2022
Guideline Number	CG0249[1]

Guideline on prevention of Early onset neonatal Group B streptococcal (GBS) disease.

Introduction: Group B Streptococcal (GBS) infection is the most frequent cause of severe early onset (less than 7 days of age) infection in new born infants .GBS is present in the bowel flora of 20-40% of adults.

Antenatal screening for Group B streptococcus:

Universal bacteriological screening for GBS is not recommended.

All pregnant women should be signposted to information on GBS infection in pregnancy book.

Clinical risk factors that place the women at increased risk of having baby with Early onset Group B streptococcal (EOBS) disease.

- Having previous baby with GBS disease
- Positive GBS carriage during pregnancy (e.g. Urine infection or a swab taken to investigate a vaginal discharge).
- Preterm birth
- Prolonged rupture of membranes
- Suspected Intrapartum infection including suspected chorio amnionitis
- Pyrexia

Women with GBS positive in a previous pregnancy:

Explain to women that the likelihood of GBS carriage in this pregnancy is 50%.

Discuss the options of Intrapartum antibiotics (IAP) or bacteriological testing in late pregnancy and the offer of IAP if still positive.

If performed bacteriological testing is done at 35-37 weeks of pregnancy or 3-5 weeks prior to the anticipated delivery date e.g. 32-34 weeks of gestation for women with twins.

Antenatal treatment for GBS infection

GBS urinary infection:

Women with GBS urinary infection during pregnancy should receive appropriate treatment at the time of diagnosis as well as IAP.

GBS positive in Vaginal or rectal swab:

Antenatal treatment not indicated as it does not reduce the risk of GBS colonisation at delivery.

GBS carriage detected incidentally or by intentional testing:

Offer Intrapartum antibiotic prophylaxis.

Management of labour in women with GBS carriage

1. Membrane sweeping is not contraindicated in women with GBS carriage.
2. Method of induction should not vary according to GBS carrier status.
3. Antibiotics prophylaxis specific for GBS is not required for women undergoing planned caesarean section in the absence of labour and intact membranes.
4. Birth in a pool is not contraindicated if the woman is a known GBS carrier provided she is offered IAP.

Management of women with rupture of membranes at term (37+0 weeks) to reduce risk of EOGBS

- Women who are known carriers of GBS should be offered immediate IAP and induction of labour as soon as reasonably possible.
- In women where carrier status is negative or unknown offer induction of labour after 24 hours and if a patient requests immediate IOL this will be carried out depending on clinical priority.

Women in labour with pyrexia of 38 degree C or greater should be offered broad spectrum antibiotic regime which should cover EOGBS.

Women with preterm labour and preterm pre labour rupture of membranes

- Intrapartum antibiotic prophylaxis (IAP) is recommended for women in confirmed pre term labour irrespective of GBS status.
- IAP is not recommended for woman who is not in labour and having preterm planned caesarean section with intact membranes.
- For women with positive GBS carriage in the current or previous pregnancies the perinatal risks associated with preterm delivery at less than 34 weeks of gestation outweighs the risk of perinatal infection.
- For those more than 34 weeks of pregnancy it may be beneficial to expedite delivery if a woman is a known carrier of GBS.

Bacteriological consideration:

If testing for carrier status has to be undertaken, swab should be taken from lower vagina and the ano rectum (vagina, then ano rectum) or two different swabs can be used.

The swab should be placed in non-nutrient transport medium and the clinician should indicate that the swab is being taken for GBS.

The specimen should be transported and processed as soon as possible if processing is delayed specimen should be refrigerated.

Antibiotic use for prevention of EOGBS

Please refer the Matrix for prevention of Early onset Neonatal Group B Streptococcal disease.

Which antibiotics should be used for IAP?

- IAP for GBS: Benzyl penicillin (cefuroxime in mild and vancomycin in severe penicillin allergy) should be commenced as soon as possible after the **onset** of labour and continued until delivery.
- 3 gms of intravenous benzylpenicillin after the onset of labour as soon as possible and 1.5 g 4hourly until delivery.

To optimise the efficacy of IAP the first dose should be given at least 4 hours prior to delivery.

For women with known or suspected allergy to penicillin.

Those who has not had severe allergy to penicillin cefuroxime can be used.

Cefuroxime intravenously 1.5 gm loading dose followed by 750 mg every 8 hours

If there is any evidence of severe allergy to penicillin, vancomycin should be used, 1 gm intravenously every 12 hours.

Management of women with known GBS carrier status who decline IAP

These women should be advised that the baby should be closely monitored for 12 hours after birth and discouraged from seeking very early discharge.

Matrix for the Prevention of Early Onset Neonatal Group B Streptococcal Disease (RCOG 2017)

CG: Clinical Guideline; **GBS:** Group B Streptococcus **IAP:** IV Intra-partum Antibiotic prophylaxis; **IOL:** Induction of Labour; **MSU:** Midstream specimen of urine; **SROM:** Spontaneous Rupture of Membranes, **VS:** Vaginal Swab

When to offer / give Intrapartum Antibiotic Prophylaxis (IAP)	Negative for MSU, VS or History of GBS	MSU / VS GBS + in THIS pregnancy	Previous baby had GBS disease	Mother GBS positive in previous pregnancy
SROM at Term ($\geq 37^{+0}$ weeks)	Start IOL process Not for IAP	Start IOL process (immediate) & IAP for GBS	Start IOL process (immediate) & IAP for GBS	Start IOL process Offer IAP for GBS if not Screened for GBS at 3-5 weeks pre-delivery
Preterm Labour ($< 37^{+0}$ weeks)	IAP for GBS	IAP for GBS	IAP for GBS	IAP for GBS
Labour at Term	No IAP	IAP for GBS	IAP for GBS	Offer IAP for GBS if not screened for GBS at 3-5 weeks pre-delivery
Caesarean Section <i>Not in labour with intact membranes</i>	Routine antibiotics as per NICE CG 132	Routine antibiotics as per NICE CG 132	Routine antibiotics as per NICE CG 132	Routine antibiotics as per NICE CG 132
Temp $> 38^{\circ}\text{C}$ in labour or suspected chorioamnionitis	Use broad spectrum to include GBS cover	Use broad spectrum to include GBS cover	Use broad spectrum I to include GBS cover	Use broad spectrum to include GBS cover

Note: The matrix is specifically intended for the prevention of early onset neonatal Group B streptococcal disease. Please refer to the “Obstetric surgery prophylaxis” section for Trust guidance on antibiotic prophylaxis for Caesarean Sections. Please refer to “Pre-partum / Intra-partum Antibiotics” section for Trust guidance on antibiotics for patients with pyrexia in labour or suspected chorioamnionitis.

How should the new born baby be managed?

Parents and carriers should seek urgent medical advice if they are concerned that the baby

- Showing abnormal behaviour(e.g., inconsolable crying or listlessness) or
- Unusually floppy or
- Have developed difficulties with feeding or tolerating feeds or
- Abnormal temperature lower than 36 degrees or higher than 38 degrees or
- Had rapid breathing or
- Has a change in skin colour.

How should the term babies whose mothers have received adequate IAP should be managed?

- Term babies who are clinically well and whose mothers have received IPA for prevention of EOGBS more than 4 hours before delivery do not require special observation.
- The babies of mothers who received broad spectrum antibiotics during labour for indications other than GBS prophylaxis may require investigation and treatment as per NICE Guideline on early onset neonatal infection.

How should well babies at risk of EOGBS disease whose mothers have not received adequate IAP should be monitored?

Well babies should be evaluated at birth for clinical indicators of neonatal infection and have their vital signs checked at 0, 1 and 2 hours and then 2 hourly until 12 hours.

Post-natal antibiotic prophylaxis is not recommended for asymptomatic term infants without known antenatal risk factors.

Babies with clinical signs of EOGBS disease should be treated with penicillin and gentamicin within an hour of the decision to treat.

How should the baby of the mother who has had a previous baby with GBS disease be managed?

These babies should be evaluated at birth for clinical indicators for neonatal infection and have their vital signs checked at 0, 1 and 2 hours and then 2 hourly until 12 hours.

Breast feeding should be encouraged irrespective of GBS status.

Abbreviations:

GBS- Group B streptococcus

EOGBS – Early Onset Group B Streptococcal Disease

IAP: Intrapartum Antibiotic Prophylaxis

Reference: RCOG Group B Streptococcal Disease, Early-onset (Green-top Guideline No. 36) 2017