University Hospitals of North Midlands NHS
NHS Trust

Achieving Sustainable Quality in Maternity Services

ASQUAM

Prevention of Early Onset Neonatal Group B Streptococcal Disease

Date of Ratification:	February 2019
Date of Next Review:	February 2022
Ratified by:	Labour Ward Forum Sub-Group Obstetric Guideline Group
Reviewed by:	Consultant Obstetrician and Gynaecologist Consultant Microbiologist

VERSION CONTROL SCHEDULE

Version	Date	Author	Comments
1	2001		
2	2006		
3	2011 – October		
4	2014 – September	Dr J Chan Consultant Obstetrician	Full review undertaken
5	2017 – May	Dr J Chan Consultant Obstetrician	Minor change – following section added to guideline **4.6 Privately undertaken GBS test** If a mother presents with a positive GBS result, undertaken privately in the third trimester and at a CPA-accredited laboratory, then we should accept the result, explain that in the UK the expert view is that the benefit of intrapartum prophylactic antibiotic treatment based on this positive test result alone does not outweigh the risks of the treatment to mother and baby, however that in this instance we will offer intrapartum prophylactic antibiotics (IAP) if preferred by the mother. These cases should be reported via the DATIX system.
6	2019 – February	Dr J Chan Consultant Obstetrician Dr J Orendi Consultant Microbiologist	Updated and changes in practice made as follows: •GBS information leaflets need to be provided to all pregnant women •GBS screening test (Lower rectal vaginal swab) at 35-37 weeks or IAP is offered to women who had GBS in previous pregnancy without GBS neonatal disease •Positive GBS result in any trimester in current pregnancy will require IAP (previous only 3rd trimester) •All women in established active preterm labour or history of Preterm pre-labour rupture of membrane when in labour should be offered IAP regardless of GBS status. •Women with GBS in previous pregnancy without neonatal GBS should be offered screening and/or intrapartum antibiotics. •Water birth is not contraindicated for women with GBS colonisation if offered IAP. It should be accommodated in MBC (not FMBU). •IAP now recommended for confirmed pre-term labour and/or PPROM when in labour/induced. •Change of alternative antibiotics to penicillin from clindamycin to cefuroxime or teicoplanin, and to oral amoxicillin or iv teicoplanin in case of waterbirth.

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To be read in conjuction with the following guidelines:

ASQUAM guideline on Preterm Prelabour Rupture of Membranes (PPROM)
'Infection in First 72 hours of Life', Staffordshire, Shropshire & Black Country Newborn Network Neonatal guideline (2017-2019)
ASQUAM Sepsis in pregnancy and antimicrobial
ASQUAM Prelabour rupture of membranes at term (greater than 37 weeks) (PROM)
ASQUAM Suspected pre-term pre-labour rupture of membranes (PPROM)
ASQUAM Suspected Preterm labour before 37 weeks

1. INTRODUCTION

The purpose of this document is to provide guidance for obstetricians, midwives and neonatologists on the prevention of early-onset neonatal group B streptococcal (GBS) disease.

2. BACKGROUND

Group B streptococcus is recognised as the most frequent cause of severe early onset infection in neonates with an incidence in the UK of 0.5/1000 births. Administration of intrapartum antibiotic prophylaxis (IAP) during labour has been associated with a reduction in early onset group B Streptococcus (EOGBS) disease but not late-onset disease.

However a Cochrane review concluded that IAP for colonised mothers reduced the incidence of EOGBSD but it has not been shown to reduce all causes of mortality or GBS-related mortality. Without robust evidence supporting universal antenatal screening for GBS and the potential risk of adverse effects such as anaphylaxis, the UK National Screening Committee recommended that routine screening should not be introduced into UK practice.

3. INFORMATION, RECOGNITION AND ASSESSMENT

Group B streptococcus bacterial infections in the neonate are present as respiratory disease, general sepsis, or meningitis within the first week. The mortality from early-onset GBS disease in the UK is 6% in term infants and 18% in preterm infants.

All pregnant women should be given the Joint GBSS/RCOG patient information leaflet Group B Streptococcus (GBS) in pregnancy and newborn babies (December 2017) and the UHNM leaflet Privately-undertaken GBS tests. These are accessible via the Bounty App.

3.1 Risk factors that justify offering IAP are:

- Previous baby affected by GBS disease
- Maternal GBS carriage (e.g. urinary infection or swab taken to investigate vaginal discharge) detected during the current pregnancy
- Maternal pyrexia (>38◦C during labour)
- Preterm birth
- Prolonged rupture of membranes
- Suspected maternal intrapartum infection, including suspected chorioamnionitis

The National Screening Committee does not recommend universal bacteriological screening for GBS. We therefore do not offer routine screening to women in pregnancy. Maternal GBS carrier status confirmed by privately-undertaken GBS tests from accredited laboratory will be offered intrapartum antibiotics. Please follow the guidance detailed in section 4.7.

3.2 In mothers with GBS carriage in previous pregnancy without neonatal GBS disease:

When GBS was detected in a previous pregnancy, then explain to mothers that maternal GBS carriage in this current pregnancy is 50%. Discuss the options of:

- Intrapartum antibiotics; or

- Bacteriological testing with a single self-collected lower vaginal and rectal swab (LVR). This will be offered at a community midwife or ANC appointment in the third trimester between 35 to 37 weeks gestation (or 3-5 weeks prior to anticipated delivery date).

  If positive, women will be informed of test result (see section 5) and offered intrapartum antibiotics.

4. TREATMENT AND MANAGEMENT

4.1 Antenatal antibiotic treatment

Women with GBS urinary tract infection (growth >105cfu/ml) should receive appropriate antibiotics at time of diagnosis.

If in a single urine sample, GBS is reported AND urine is "mixed" or "no significant growth", then send repeat clean catch mid-stream urine (instruct patient). Treat as UTI if GBS is reported in repeat MSU.

Antenatal treatment with benzyl penicillin for vaginal/rectal GBS colonisation is not recommended as it does not reduce the likelihood of GBS colonisation at the time of delivery.

4.2 Review of GBS status

Clinicians (midwives/doctors) admitting a woman in the following clinical situations:

- Established active labour (regardless of gestation)
- Confirmed rupture of membranes (regardless of gestation)
- Induction of labour

Should ascertain GBS status by reviewing all MSU, HVS and LVR (if applicable) results on ICE, document status and ensure IAP is given if indicated (see 4.3).

4.3 Intrapartum antibiotic prophylaxis (IAP)

IAP is 80% effective at preventing EOGBS disease.

IAP is recommended for the following scenarios:

- **Women with GBS urinary tract infection during pregnancy**

- **Women with a previous baby with neonatal GBS disease.** The probable increase in risk may be due to low levels of maternal anti-GBS antibodies.

- **Women with GBS detected on a vaginal/rectal swab in the current pregnancy (see 3.2)**

- **Women with pyrexia (>38°C) during labour**

- **Women with confirmed preterm labour irrespective of GBS status (see 4.5)**

- **Women with preterm rupture of membranes once labour is confirmed or induced irrespective of GBS status (see 4.6)**

- **Women with GBS in previous pregnancy (without neonatal GBS disease) who request intrapartum antibiotics (see 3.2)**

Antibiotic prophylaxis specific for GBS is NOT required for women undergoing planned caesarean section in the absence of labour and with intact membranes.

Water birth is not contraindicated if the woman with GBS carriage is offered appropriate IAP. It should be accommodated on the Midwife Birthing Centre not Free Standing Midwifery Unit (see 4.7).

4.4 Prelabour rupture of membrane at term (>37^{+0} gestation) in women colonised with GBS

- **Immediate induction of labour and IAP should be offered.**

- If chorioamnionitis is suspected, broad-spectrum antibiotic therapy including active agent against GBS should replace GBS-specific IAP and immediate induction of labour should be offered.

4.5 Preterm labour irrespective of maternal GBS status

The risk of EOGBS disease in the infants of mothers who deliver preterm is estimated to be 2.3 per 1000. The risk of GBS infection is higher with preterm delivery and the mortality rate from infection is increased (20-30% vs 2-3% at term). As such

- **IAP should be offered to women with confirmed preterm labour irrespective of maternal GBS status.**

IAP is NOT recommended for women not in labour and having preterm planned caesarean section with intact membranes.

4.6 Preterm prelabour rupture of membranes

Bacteriological testing for GBS carriage is NOT recommended for women with preterm prelabour rupture of membranes.

- IAP should be offered once labour is confirmed or induced irrespective of GBS carrier status.

- For women with known GBS colonisation in current pregnancy or in previous pregnancies, the perinatal risks associated with preterm delivery at less than 34^{+0} weeks outweigh the risks of perinatal infection. For those at or more than 34^{+0} weeks gestation, expedite delivery if a woman is a known GBS carrier at consultant's discretion.

4.7 Prescribing Regimes and Nomogram

- If antibiotic prophylaxis is to be used, the antibiotic should be administered intravenously as soon as possible after the onset of established labour and if possible, at least 2 hours before delivery.

- Preferred choice if no history of penicillin history:

  " **IV Benzylpencillin 3g followed by 1.5g every 4 hours until delivery**"

  If water birth is chosen, give IV Benzylpenicillin 3g loading dose. If not immediately entering the pool, then follow with IV Benzylpenicillin 1.5g every 4 hours. Remove the iv access prior to entering the

pool. If delivery has not occurred 4 hours after the last dose of IV Benzylpenicillin, then continue in the pool with oral Amoxicillin 1g every 8 hours until delivery.

- In women with a history of penicillin allergy:

  In women who report an allergy to penicillin, document nature of allergy. Only document as allergy if a convincing history is present (i.e. non-severe rash or immediate type / swelling / anaphylaxis). Do not document a gastro-intestinal intolerance as allergy.

  " **IV Cefuroxime 1.5g loading dose followed by 750mg every 8 hours" if NON-SEVERE ALLERGY TO PENICILLIN,**

  IV Teicoplanin 400mg every 24 hours" if SEVERE ALLERGY TO PENICILLIN"

  If waterbirth is chosen, give IV Teicoplanin 400mg and remove the venflon prior to entering the bath. If delivery has not occurred within 24 hours of first dose, then give repeat IV Teicoplanin 400mg every 24 hours until delivery.

- **If chorioamnionitis is suspected, broad-spectrum antibiotic therapy including an agent active against GBS should replace GBS-specific antibiotic prophylaxis.**

The incidence of severe anaphylaxis associated with the use of penicillin in labour has been estimated at 1/10,000 women treated and that of fatal anaphylaxis has been estimated to occur in a 1/100,000 women.

4.8 Privately-undertaken GBS test

- If a mother presents with a positive GBS report from a non-NHS private laboratory, unless the printed report clearly stated it is **fully UKAS-accredited** the test result will be considered as invalid.

- Routine screening for antenatal GBS carriage is not recommended. Mothers presenting with a non-UKAS accredited positive GBS result, SHOULD NOT be re-screened locally.

- If the positive GBS test is from a fully UKAS-accredited laboratory, then there is no need to repeat the screen locally.

  In this case, the obstetrician or midwife will explain that culture-screening for GBS is not routinely recommended in the UK (according to NICE guidance). Intrapartum antibiotics in this situation do reduce the low risk of neonatal GBS disease, but with side effects (see BNF).

  If a mother still prefers to receive intrapartum antibiotics following this discussion, then it should be offered following consent.

- If intrapartum antibiotics is already indicated as per our guidance (see Section 4), then the mother should be offered treatment irrespective of the result of any privately undertaken test even if negative.

4.9 Mothers with known GBS colonisation who decline IAP

- Inform these mothers that their infants are at increased risk of developing EOGBS disease than if they had received IAP. The overall risk remains low.
- **Inform Neonatal team in cases when mothers decline IAP for known GBS colonisation.**
- **Their baby will require clinical observation for 12 hours after birth and early discharge is therefore not recommended.**

4.10 Management of the newborn infant

- **Inform Neonatal team for babies born to mothers requiring IAP.**

- **Follow 'Infection in the First 72 hours'** Staffordshire, Shropshire & Black Country Newborn Network Neonatal guideline (2017-2019). (Appendix 1 and 2) with regard to red flag signs, risk factors, and clinical indicators.

Breastfeeding does not increase risk of neonatal GBS disease.

5. DOCUMENTATION/RECORD KEEPING REQUIREMENTS

5.1 GBS detected on HVS and/or MSU

- When a high vaginal swab and/or MSU is taken for a patient seen in Community midwife clinic/antenatal clinic/MAU/ward, doctors/midwife should place this order on K2 Athena (under "Investigations") as well as iCM order comms.

- The team where the test is initiated will be responsible for the review, management and documentation of result(s) on K2. This will include alert for antenatal (where relevant) and intrapartum management (under "Management Plans" on K2), and communication with both GP and patient as appropriate.

- eFax the report and recommendation for treatment (if positive MSU) to the GP surgery

- Send a letter to the patient to inform need for antenatal treatment for GBS in MSU and intrapartum antibiotics for GBS in HVS/MSU. (See Appendix 3 and 4)

5.2 GBS detected screening on LVR

- If a lower vaginal/rectal swab (LVR) is taken for screening when seeing a woman in community midwifery/ANC, the doctor/midwife should place this order on K2 Athena (under "Investigations") and submit specimen to microbiology using the hand written microbiology request form, stating **LVR for GBS screening in pregnancy at [insert gestation]**.

- The Screening Team will be responsible for the review, management and documentation of the result on K2 to include alert for intrapartum management (under "Management Plans" on K2), communication with the GP and patient as appropriate.

- eFax report to GP surgery and

- Send letter to patient to inform need for treatment for intrapartum antibiotics. (See Appendix 4).

5.3 Daily GBS status report from UHNM microbiology department

- As a fail-safe measure, our Screening Team will review the GBS positive status list received daily from the Microbiology team to ensure the GBS status is acknowledged and managed as stated above. They will do so by referring any cases with outstanding management for actions by the manager of the clinical areas where tests were undertaken.

6. MONITORING AND AUDIT

The need to monitor/audit the standards set out below will be considered alongside other Directorate requirements and prioritised accordingly. The Directorate Clinical Audit programme is drafted by the Directorate Clinical auditor, in liaison with clinical staff, and approved by the Directorate.

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements	Acting on recommendations and lead(s)	Change in practice and lessons to be shared
Guideline content	Guideline Co-ordinator	Guideline Review	Every three years	Labour Ward Forum Subgroup: Guideline Meeting	Required changes to practice will be identified and actioned with the release of the updated guideline.	Required changes to practice will be identified and actioned with the release of the updated guideline.
Clinical standards within guideline	Directorate Clinical Auditor	Clinical Audit	As required in relation to other Directorate priorities	Directorate Business, Performance and Clinical Governance Meeting	Required actions will be identified and completed in a specified timeframe as per the audit action plan.	Required changes to practice will be identified and actioned within a specific timeframe as per the audit action plan and, in addition, lessons will be shared with relevant stakeholders as per audit action plan.

7. REFERENCES

Royal College of Obstetricians and Gynaecologists. Green-top Guideline No. 36. *Early Onset Group-B Streptococcal Disease.* London: RCOG; 2012 (Updated September 2017).

The National Institute of Health and Care Excellence. Clinical Guideline CG 62. *Antenatal screening for uncomplicated pregnancies.* UK: NICE 2008 (Updated January 2017).

BNF Online March 2017
www.medicinescomplete.com/mc/bnf/current (accessed 08 April 2017).

Appendix 1 - INFECTION IN FIRST 72 HOURS OF LIFE

Extract – for full guideline see: http://uhns/clinicians/clinical-guidance/clinical-guidelines/neonatal

Based on NICE CG149 Antibiotics for early onset neonatal infection
Updated December 2016

RISK FACTORS FOR INFECTION

- Invasive group B streptococcal infection in a previous baby
- Maternal group B streptococcal colonisation, bacteriuria or infection in the current pregnancy
- Pre-labour rupture of membranes
- Preterm birth (<37 weeks) following spontaneous labour
- Suspected or confirmed rupture of membranes for >18 hr in a preterm birth
- Intrapartum fever >38°C, or confirmed or suspected chorioamnionitis
- Mother given parenteral antibiotics for confirmed or suspected invasive bacterial infection (such as septicaemia) at any time during labour, or in the 24 hr periods before and after the birth [This does not refer to intrapartum antibiotic prophylaxis] **RED FLAG**
- Suspected or confirmed infection in a co-twin **RED FLAG**

CLINICAL INDICATORS SUGGESTIVE OF INFECTION

- Altered behaviour or responsiveness
- Altered muscle tone
- Feeding difficulties (e.g. feed refusal)
- Feed intolerance (e.g. abdominal distension, vomiting, excessive gastric aspirates)
- Altered heart rate (bradycardia or tachycardia)
- Signs of respiratory distress
- Respiratory distress commencing >4 hr after birth **RED FLAG**
- Hypoxia (e.g. central cyanosis or reduced oxygen level)
- Apnoea
- Signs of neonatal encephalopathy
- Seizures **RED FLAG**
- Need for mechanical ventilation:
- in a preterm baby
- in a term baby **RED FLAG**
- PPHN
- Temperature <36°C or >38°C, not explained by environmental factors
- Signs of shock **RED FLAG**
- Unexplained excessive bleeding, thrombocytopenia or abnormal coagulation (INR >2)
- Oliguria persisting aged >24 hr
- Hypo/hyperglycaemia
- Metabolic acidosis (BE ≥10)

Red flag signs and clinical indicators suggestive of neonatal infection

- Systemic antibiotics given to mother for suspected bacterial infection during labour or within 24 hr either side of birth
- Suspected or confirmed infection in a co-twin
- Respiratory distress starting >4 hr after birth
- Seizures
- Signs of shock
- Need for mechanical ventilation in a term baby

ACTIONS

- Any red flags or no red flags but ≥2 risk factors **or** clinical indicators
  - perform investigations, including blood cultures, and start antibiotics
- No red flag or clinical indicators but 1 risk factor, **or** no red flag or risk factors but 1 clinical indicator
  - use clinical judgement and consider withholding antibiotics
  - monitor baby for clinical indicators of possible infection, including vital signs
  - monitor for at least 12 hr from birth (at 1 hr, 2 hr and then 2-hrly for 10 hr)
- If further clinical concerns, perform investigations including blood cultures and start antibiotics
- Whenever decision made to give antibiotics, start as soon as possible and always within 1 hr of decision

INVESTIGATIONS BEFORE STARTING ANTIBIOTICS

Blood culture (in all)
Measure CRP at presentation and 18–24 hr after
If strong clinical suspicion of infection or signs/symptoms of meningitis, perform lumbar puncture (LP), if thought safe to do
  - if performing LP will delay antibiotics, give antibiotics first
- Do not carry out routine urine MC&S
- Take skin swabs only if clinical signs of localised infection
- If purulent eye discharge (may indicate serious infection e.g. chlamydia or gonococcus):
  - collect eye swabs for urgent MC&S and swabs in viral transport media for viral PCR, especially if looking for chlamydia or gonococcus (see **Conjunctivitis** guideline)
  - start systemic antibiotics while awaiting results
- If signs of umbilical infection, including purulent discharge or periumbilical cellulitis, perform a blood culture, take a swab for MC&S and start flucloxacillin and gentamicin IV
  - if microbiology results indicate infection not due to Gram-negative infection stop gentamicin

Choice of antibiotics

- Use benzylpenicillin and gentamicin as first choice for empirical treatment
- If microbiological evidence of Gram-negative bacterial sepsis, add a third antibiotic that is active against Gram-negative bacteria e.g. cefotaxime. If Gram-negative infection subsequently confirmed, stop benzylpenicillin

Benzylpenicillin

- ~~25~~ 30 mg/kg 12-hrly
- If baby appears very ill, give ~~25~~ 30 mg/kg 8-hrly

Gentamicin

- Follow local guideline or:
  - 5 mg/kg
  - if a second dose to be given (see below), give 36 hr after first dose
  - interval may be shortened based on clinical judgement e.g. for Gram-negative infection or if baby appears very ill
- Monitoring of gentamicin – see below

INVESTIGATIONS DURING ANTIBIOTIC TREATMENT

- CRP: measure before starting antibiotics and 18–24 hr after presentation
- Consider LP if:
  - CRP >10 mg/L
  - positive blood culture (LP not routinely indicated if CoNS on blood culture)
  - baby does not respond satisfactorily to antibiotics
- Asymptomatic babies on postnatal ward/transitional care unit with CRP ≤60 do not require a routine LP but should be reviewed by a middle grade doctor

Review treatment at 36 hr

- Stop at antibiotics if:
  - initial clinical suspicion of infection was not strong **and**
  - negative blood culture **and**
  - baby is well with no clinical indicators of possible infection **and**
  - levels and trends of CRP are reassuring i.e. CRP <15 mg/L on both tests

Usual duration of treatment

- If blood culture negative and baby is well with no strong clinical suspicion of infection and neither CRP > 60 antibiotics can be stopped after 5 days
- If blood culture positive or strong clinical suspicion of infection or either CRP >60 treat for 7 days
- Continue treatment beyond 7 days if baby is not fully recovered or if this is advisable based on blood culture result and expert microbiological advice if necessary
- If any doubt about the duration of treatment consult the service consultant

Meningitis

- If meningitis suspected but Gram stain is uninformative, use amoxicillin and cefotaxime
- Review treatment decisions taking CSF results into account
- If CSF Gram stain suggests GBS, give benzylpenicillin ~~50~~ 60 mg/kg 12-hrly and gentamicin 5 mg/kg every 36 hr
- If CSF culture confirms GBS, continue benzylpenicillin for at least 14 days and gentamicin for 5 days
- If CSF culture or Gram stain confirms Gram-negative infection, stop amoxicillin and treat with cefotaxime alone
- If blood culture or CSF culture is positive for listeria, consider stopping cefotaxime and treating with amoxicillin and gentamicin
- If CSF Gram stain or culture suggests any organism other than GBS, use an antibiotic regimen based on local expert microbiological advice

Therapeutic monitoring of gentamicin

- Follow local guidelines or:
- **Trough concentrations:**
  - If second dose to be given, measure before administering
  - review level before giving third dose
  - monitor before every third dose, or more frequently if necessary (e.g. concern about previous level or renal impairment)
  - adjust dose interval aiming to achieve level of <2 mg/L
  - if course lasts >3 doses, level of <1 mg/L is advisable
  - if a trough level is not available, do not withhold next dose of gentamicin unless there is evidence of renal dysfunction (raised serum urea, creatinine or anuria)
- **Peak concentrations**:
  - measure in selected babies e.g.
  - with oedema
  - with macrosomia (birth weight >4.5 kg)
  - unsatisfactory response to treatment
  - proven Gram-negative infection
- Measure 1 hr after starting gentamicin infusion
- If peak is <8 mg/L, increase dose

DISCHARGE FOLLOWING GROUP B STREPTOCOCCAL INFECTION

- Advise mother that if she becomes pregnant again:
  - increased risk of early onset neonatal infection
  - to inform her maternity team that a previous baby had GBS infection
  - intrapartum antibiotics will be recommended
- Inform mother's GP in writing risk of:
  - recurrence of GBS infection in this baby
  - GBS infection in subsequent pregnancies

- If mother had GBS colonisation in this pregnancy but no infection in baby, this will not affect management of any further births

GROUP B STREPTOCOCCAL COLONISATION OF MOTHER

Based on RCOG Green Top Guideline No. 36
See also **Infection in First 72 Hours of Life** guideline

BACKGROUND

- Mortality from GBS infection is 2-3% at term and 20-30% for preterm babies
- A baby infected with GBS had a 1 in 19 risk of dying and 1 in 14 survivors will have long term disability
- 90% of babies with early onset GBS infection are symptomatic within 12 hours of birth
- A mother colonised with Group B Streptococcus (GBS) during pregnancy has a 50% risk of colonisation in subsequent pregnancies
- A colonised mother who has had a previous baby affected by GBS has a greater chance of having another affected baby than a colonised mother who has not had an affected baby
- Intrapartum prophylaxis does not prevent late onset GBS infection

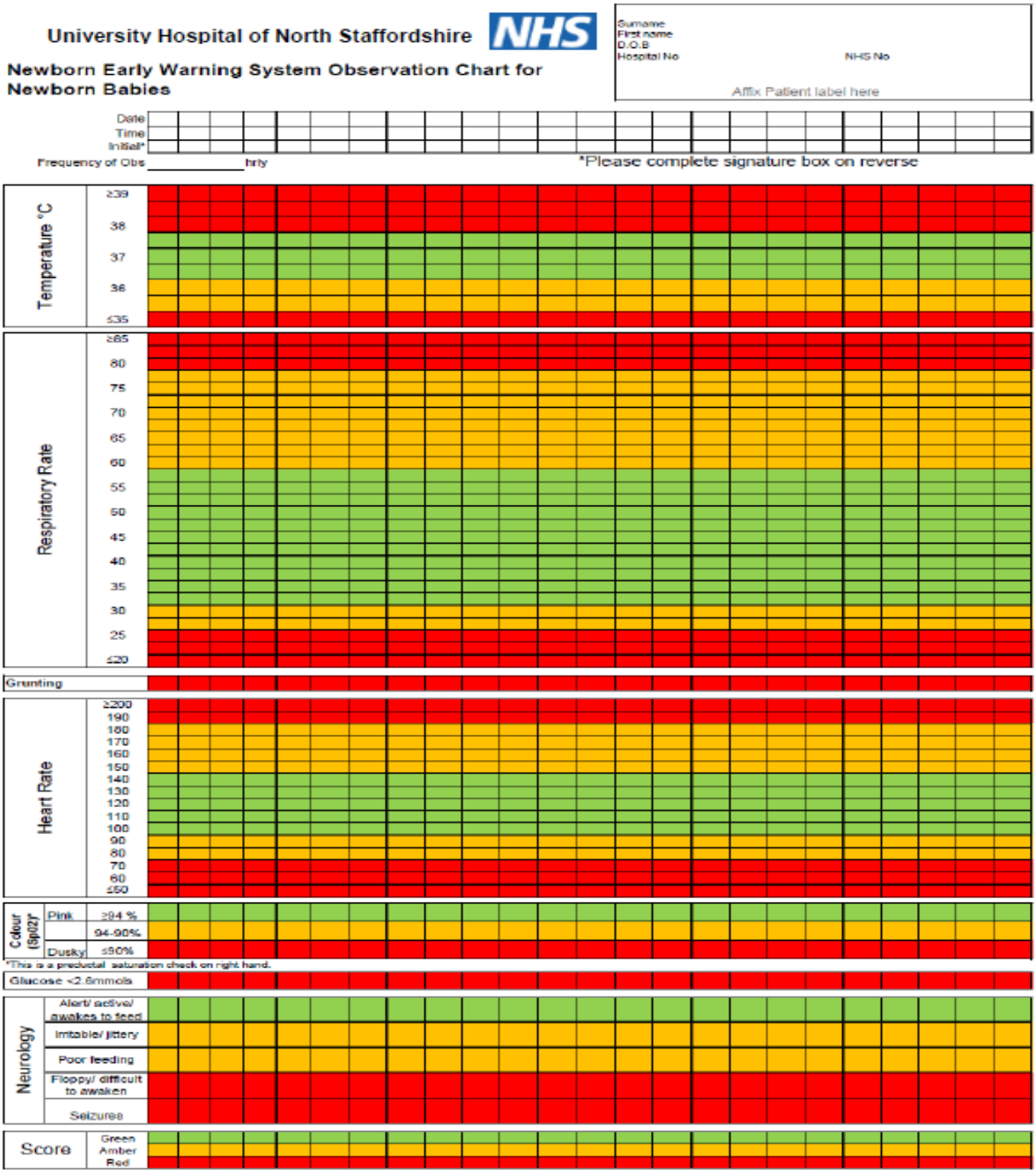
INTRAPARTUM PROPHYLAXIS (IPA)

- Mothers identified as being colonised with GBS during pregnancy should be offered IPA
- any grow of GBS is significant (urine, rectum or vagina), whether identified accidentally or routinely
- A mother with a previous affected infant should be offered IPA
- IPA is not needed for planned delivery by caesarean section with intact membranes and in the absence of labour

MANAGEMENT OF THE BABY

- No action is need for a term baby whose mother received IPA >4 hr before delivery
- If IPA was indicated but was not given or if delivery was within 4 hours of first dose of IPA manage the baby according to the **Infection in First 72 Hours of Life** guideline
- If a mother with known GBS colonisation declines IPA follow **Infection in First 72 Hours of Life** guideline. The baby should have neonatal observations and early discharge (within 24 hrs of birth) should be avoided

Appendix 2 – Newborn Early Warning System Observation Chart for Newborn babies (NEOWS)



Observe for the first **12 hours of life**, at the intervals indicated below, if: History of pre-labour rupture of membranes (for more than 24 hours before established labour)
OR
Significant thick meconium (Grade 3 or 4)

Observe at **1 and 2 hours of age** if:
Light meconium (Grade 1 or 2)

(NICE Intrapartum Care; Care of Healthy Women and Their Babies During Childbirth 2007)

Reason for observations: ☐ **PROM** (12hrs) ☐ **Significant Meconium** (12hrs) ☐ **Light Meconium** (1+2hrs)

All observations in Green Continue observations as determined by Dr/ANNP/Midwife/Nurse

1 observation in Amber: Contact Dr/ANNP/Midwife Management plan and review discussed. Repeat observations in 30-60 minutes.

>1 observation in Amber: Immediately contact ANNP/Medical Team for Review

Any observation in Red: Immediately contact ANNP/Medical team for review

Name (Print Clearly)	Signature	Role	Initial

If the baby has its own medical records, the chart should be filed within the baby's medical records once complete and documented within the mother's medical records that this has occurred.
Otherwise, the chart to be filed in the maternal medical records.

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Appendix 3 – Letter to patient regarding GBS status – MSU

Women's and Children's and Clinical Support Services Division
OBSTETRICS & GYNAECOLOGY DIRECTORATE
Maternity Assessment Unit
Level 2
Maternity Building
City General site
Newcastle Road
Stoke on Trent
ST4 6QG

Tel: 01782 672300
Fax: 01782 672139

Dear

Following your recent attendance at the we are writing to inform you that your MSU (urine) result shows that you have Group B Streptococcus (GBS).

We have shared the results of the MSU with your GP in order that they can prescribe the antibiotics that you require. A week after completing your antibiotics you will be required to take a urine sample into your GP's surgery to test that the infection has been successfully treated.

It is important that you telephone the hospital immediately if you think that your waters have broken or when you think that you are in labour and inform them that you have GBS. This is because you will need to have antibiotics given to you whilst in labour to help prevent GBS being transmitted to your baby/babies.

Please read the Group B Strep (RCOG) patient information leaflet for more information. This can be found on your Bounty App. If you are unable to download your Bounty App please contact MAU (Royal Stoke) Tel: 01782 672300 between 9.00 am – 09.30 am or Day Care (County) Tel: 01785 236099 between 2.00 pm and 2.30 pm. If you have any further questions please contact your Community Midwife.

Regards

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Appendix 4 – Letter to patient regarding GBS status - HVS and LVR)

Women's and Children's and Clinical Support Services Division
OBSTETRICS & GYNAECOLOGY DIRECTORATE
Maternity Assessment Unit
Level 2
Maternity Building
City General site
Newcastle Road
Stoke on Trent
ST4 6QG

Tel: 01782 672300
Fax: 01782 672139

Dear

Following your recent attendance at the we are writing to inform you that your vaginal swab result shows that you have Group B Streptococcus (GBS).

You do not have to receive any treatment for this whilst you are pregnant but it is important that you telephone the hospital immediately if you think that your waters have broken or when you think that you are in labour and inform them that you have GBS. This is because you will need to have antibiotics given to you whilst in labour to help prevent GBS being transmitted to your baby/babies.

Please read the Group B Strep (RCOG) patient information leaflet for more information. This can be found on your Bounty App. If you are unable to download your Bounty App please contact MAU (Royal Stoke) Tel: 01782 672300 between 9.00 am – 09.30 am or Day Care (County) Tel: 01785 236099 between 2.00 pm and 2.30 pm. If you have any further questions please contact your Community Midwife.

We have shared the results of the swab with your GP, so that they are aware in case you or your baby/babies require any treatment at a later stage.

Regards

(Midwife)