

Ref: FOI/GS/ID 4543

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### **Freedom of Information Act 2000**

I am writing in response to your request for information made under the Freedom of Information Act 2000 in relation to neonatal services.

*You asked:*

*For each of the hospitals in your trust that treat newborn babies, please can you provide any information you hold (such as protocol, local guidelines/advice etc), on when a newborn baby would normally receive a lumbar puncture when you are worried about an infection or sepsis. I am particularly interested if there is a local CRP (C-reactive protein) blood level at which a lumbar puncture is usually done.*

Trust response:

Babies are treated on the Neonata Unit (NNU) and Transitional Care ward (where babies are cared for by their mothers on the TC or post-natal ward but have input from us (e.g. IV antibiotics)), in accordance with the guideline below but occasionally if the initial 1st CRP is >10, IV antibiotics may be started as well, or if the baby is symptomatic & obviously unwell. The GBS guideline follows NICE guidance.

# Maidstone & Tunbridge Wells NHS Trust

## Department of Paediatrics

### **Prevention and treatment of group B streptococcal (GBS) infection or early-onset neonatal infection.**

Risk factors to consider when deciding whether to investigate/treat for sepsis:

1. GBS in this pregnancy (HVS, Urine or other positive culture)
2. Previous baby with GBS disease (previous pregnancy with GBS carriage not included).
3. Prematurity (<37 weeks)
4. PROM > 18 hrs.
5. Maternal pyrexia > 38<sup>0</sup>C, or confirmed/suspected chorioamnionitis
6. Evidence of maternal sepsis (positive blood culture, raised WBC or CRP)
7. Suspected/confirmed infection in another baby of a multiple pregnancy

### **Term babies:**

1. If mother has a single risk factor:
  - Observation for 12 hrs (at 1 hrs, 2hrs and 2 hrly for 10 hrs).
  - Symptomatic baby (see Appendix 1): Screen (blood culture, FBC and CRP) and treat. LP should be done following discussion with consultant OR CRP more than 20.
2. If mother has at least 2 risk factors and had no treatment or had antibiotics within 2hrs of delivery: Screen and treat.
3. Symptomatic baby – either one red flag clinical indicator, or at least 2 non-red flag indicators (see Appendix 1) – screen and treat
4. If mother has had iv penicillin (or clindamycin) >4 hrs before delivery, GBS has been adequately treated and GBS is removed as a risk factor. Therefore treat (1) and (2) above taking GBS treatment into account.
5. If one twin has GBS disease, screen and treat the other twin.

### **Preterm babies (<37 weeks)**

- Follow protocol for term babies taking prematurity as a risk factor i.e. baby needs only 1 further risk factor to be screened and treated if intrapartum treatment was inadequate.

### **Treatment:**

- IV Benzylpenicillin and Gentamicin.
- Stop antibiotics after 2 consecutive CRP's are negative 24 hrs apart. (unless baby was symptomatic).
- If symptomatic, or baby has positive cultures, treat for at least 5 days.

### **References:**

Hughes RG, Brocklehurst P, Steer PJ, Heath P, Stenson BM on behalf of the Royal College of Obstetricians and Gynaecologists. Prevention of early-onset neonatal group B streptococcal disease. Green-top Guideline. No. 36. BJOG 2017;124:e280–e305

NICE clinical guideline 55; September 2007: Intrapartum care.

NICE clinical guideline 149. 2012. Antibiotics for early-onset neonatal infection

Appendix 1 – Clinical indicators of possible early-onset neonatal infection, including red flags

<b>Clinical indicator</b>	<b>Red flag</b>
Respiratory distress starting more than 4 hours after birth	Yes
Seizures	Yes
Need for mechanical ventilation in a term baby	Yes
Signs of shock	Yes
Altered behaviour or responsiveness	
Altered muscle tone (e.g. floppiness)	
Feeding difficulties (e.g. feed refusal)	
Feed intolerance (e.g. vomiting, excessive aspirates, abdominal distension)	
Abnormal HR (bradycardia/tachycardia)	
Signs of respiratory distress	
Hypoxia (e.g. central cyanosis or reduced oxygen saturation levels)	
Jaundice within 24 hours	
Apnoea	
Signs of neonatal encephalopathy	
Need for CPR	
Need for mechanical ventilation in a preterm baby	
Persistent pulmonary hypertension	
Temperature abnormality (<36C or 38C) unexplained by environmental factors	
Unexplained excessive bleeding, thrombocytopenia, or abnormal coagulation (INR>2.0)	
Oliguria persisting beyond 24 hours after birth	
Hypoglycaemia/hyperglycaemia	
Metabolic acidosis (base deficit of 10mmol/l or greater)	
Local signs of infection (e.g. eye or skin)	