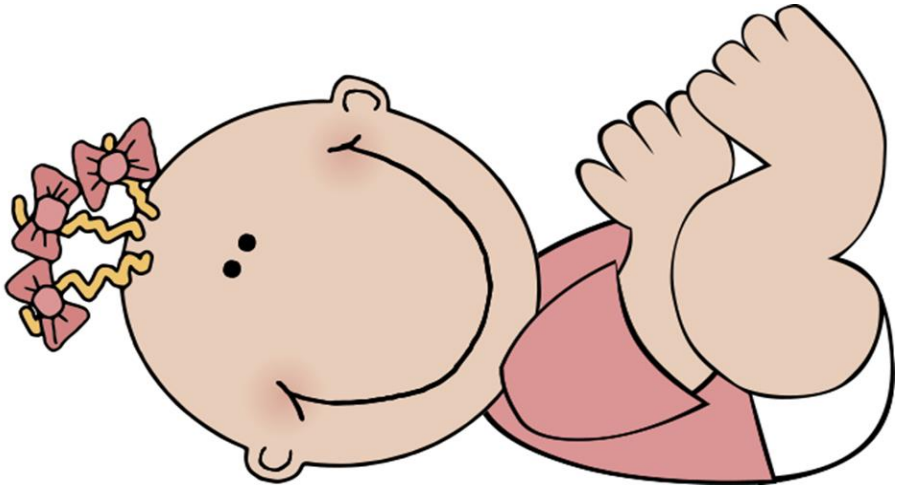
Surrey and Sussex Healthcare
NHS Trust

The SHOs Survival Guide to Neonates



Updated by:

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Welcome to ESH Neonatal Unit. This may be your first ever job in Paediatrics or Neonatal Medicine or you may be a “seasoned pro”. But, despite any experience in Neonatal Medicine, it can understandably be quite daunting starting in a new unfamiliar unit.

The aim of this guide is to serve as an introduction to working in the Neonatal Unit, guidance on the roles and expectations of an SHO and as an aide memoire as you become more comfortable in your role.

This guide is not set out to be a comprehensive manual. It is more to “chaperone” you in your role and to point you in the direction of further information and support.

As always, no guidelines are ever comprehensive, and babies all respond differently to management and treatments. If you are ever in any bit of doubt **always seek Senior advice and support.**

I have always felt lucky to have worked as part of such a wonderfully supportive team of doctors and nurses at ESH who guided me through my 1st year of paediatric training having never done paediatrics before. As we hand over the baton to you SHOs, know that you too will be lucky to be working with such approachable supportive colleagues who are always there to offer you any guidance and advice needed, whatever time of day or night. There is never an excuse for not escalating to seniors.

Good luck and hope you all enjoy Neonates at ESH.

Fizz Izagaren – ST1

July 2016

Useful Numbers

Biochemistry		**6456**
Blood Bank		**6459 / 6460**
Bed Manager		**Blp 728**
Chaplin		**6120**
Child Development Centre		**6651**
Dietician		**6134**
ECG (Chipstead)		**1661**
Echo		**6363**
EEG		**6497**
Feeding Advisors		**Blp 321**
First Care- Sick Line		**0333 321 8053**
Haematology		**6470**
Hearing Screeners		**6867**
IT Helpdesk		**1717**
ID cards		**6859**
Microbiology	**ESH**	**3088 / 3079**
	Crawley	**5332 / 3085**
Physiotherapy		**1688 / Blp 565 / 628**

SALT	**6094**
Security	**6226 / Blp 536**
Social Services	**6157**

X-Ray

X-ray co-ordinator	**Blp 600**
Portable/ Urgent X-ray	**6002**
MRI Scan	**6025**
Ultrasound	**1603**
CT scanner	**1607**
Main x-ray reception	**1604 / 1603**
PACS office (image transfer)	**6714**

Wards

Neonatal Unit	**1765 / 1837**
Delivery Suite	**6790 / 6791**
Burstow Ward (Post Natal Ward)	**1653 / 6316**
Rusper Ward (Ante-natal)	**6401**
Paeds A&E	**6905**
CAU ward clerk	**8600**
Child Assessment Unit (CAU)	**2878 / 2879**
Outwood Ward	**6415 / 6416**

Fax numbers

Neonatal Unit Fax	**01737 231 895**
CAU Fax	**01737 231 911**
Paediatric Secretary Fax	**01737 231 780**

Bleeps

Attending NNU Consultant (0900- 1700H)	**Blp 495**
Neonatal Unit Registrar (Crash bleep)	**Blp 787**
Delivery SHO (Crash bleep)	**Blp 724**
Postnates SHO (Burstow bleep)	**Blp 768**

Neonatal Unit Consultants	**Extension**		
Dr Abdul Khader	**6767**	**sec Jean Ayres**	**ext 6971**
Dr Debbie Pullen	**6972**	**sec Sarah Dalton**	**ext 2645**
Dr Avinash Aravamudhan	**2712**	**sec Ele Reed**	**ext 6769**
Dr Bindu Radha	**6183**	**sec SallyAnn Taylor**	**ext 1759**
Dr Lola Adenuga	**1826**	**sec Janet Trice**	**ext 2126**

Nursing Team

Ingrid Marsden	**- Neonatal Matron**	**office ext 1981**
Donna-Marie Jeffries	**- Neonatal Senior Sister**	
Rachel Potter	**- Practice Development Facilitator**	

Lyndsey Warner - Neonatal Outreach Sister
Tina Evans - Neonatal Outreach Sister
Louise Horn - Neonatal Outreach Nursery Nurse

The Neonatal Unit

The Neonatal Unit has 20 Cots:

3 Intensive Care Cots, and 1 Treat & Transfer Cot in Room 1

6-7 Cots in Room 2, (3 High Dependency, and 3 Special Care Cots in Room 2)

4 Step Down Cots in Room 3

3- Bed Transitional Care Unit where mum and baby can stay together once discharged from NICU before being Discharged home.

There's also 2 "Side-Rooms" where babies "Room-in" with their parents whilst the nurses can be there to offer support to parents. It can be daunting for parents to be bringing home a baby that has spent weeks and months in NICU.

Who is SCBU for?

The Neonatal unit is a **Level 2 Unit**. The unit can care for all babies born at East Surrey Hospital at 27 weeks and above.

Sometimes pregnant women present to ESH Labour ward in early stages of labour at less than 27 weeks gestation. The ideal scenario is that these women are transferred to a tertiary unit for the baby to be delivered elsewhere who can provide care to babies born at less than 27 weeks.

If this is not possible, then the baby is delivered at ESH, stabilised and then transferred out to a Level 3 unit using the Kent, Surrey and Sussex Neonatal Transport Service. The main receiving hospitals within the Network are: St Peter's Hospital (Chertsey), Royal Sussex County Hospital (Brighton) or St George's Hospital (Tooting). These babies are often transferred back to ESH once they are above 27 weeks and suitable for care in a Level 2 unit.

The Neonatal Unit can also admit babies who were discharged home but admitted to hospital within the 1st 7 days of life. The most common reason for this is Jaundice, Sepsis, Dehydration and Weight loss. Often these babies are admitted with their mother for care and treatment on Burstow Ward (Post-Natal Ward) under the care of the Neonatal Team.

The Neonatal Team

Week Day:

Named Consultant of the Week

Neonatal Registrar (08.30/9-21.30)

Neonatal Long Day SHO (08.30/9-21.30)

NICU Nurses and Nursery Nurses

Burstow Ward SHO (08.30/9-17.30)

Delivery/ OPD SHO (08.30/9-17.30 shift) – this doctor should aim to go to afternoon OPD clinic and hand crash bleep to NNU LD SHO at 1pm.

Burstow MEONS (0700-1300) shift 7 days a week doing baby checks

Weekend:

Consultant On-Call for whole weekend (start Friday 5pm-Monday 9am)

Neonatal Registrar (9-21.30)

Neonatal Long Day (NLD) SHO (9-21.30)

1 Postnatal SHO (9-5.30pm) – this doctor covers Burstow wars and also carries the Delivery crash bleep at weekends

Burstow ward MEONS

Starting the Day

There is paediatric teaching 3 mornings a week at 08.30hrs in the NNU coffee room. The Neonatal Unit activities then starts at 9am with a handover from the night team to the incoming Day team. It is important to be punctual or even early to handover! You will definitely appreciate people's **promptness** if you have had a busy, tiring Night shift.

Those who will be present are:

Consultant, Night shift SHO and Registrar, Day Shift Neonatal Long Day SHO, Delivery Float SHO (if there is one), Burstow Ward SHO, Neonatal Day Registrar/ ANNP. The Sister in charge of NICU and Burstow Ward Sister will normally be present.

Handover usually starts with Burstow babies who are on our list if they are on IV ABx or need reviewing. The Consultant will guide you on what is expected in their management. Thereafter, the Burstow & Delivery/OPD SHOs leave handover and head to Postnates where they initiate a huddle on Burstow ward and disseminate plans from NNU handover to individual midwives and the infant feeding team.

The rest of NNU handover will be regarding babies on NICU which is the main focus of the NLD SHO & NNU Registrar duties.

Delivery/OPD SHO – will carry Bleep 724 from 0900H-1300H then proceed for Clinic placements. NLD SHO will carry Bleep 724 from 1300H – 2100H (Neonatal Crash Bleep)

Burstow SHO carries Bleep 768 (Also communicates as a Crash bleep so be ready to attend if needed), and Bleep 724 at the weekend, or if short staffed. If not the NLD SHO will need to take 1 bleep and help with postnatal workload.

Neonatal SpR Carry 787 Bleep (Neonatal Reg Crash Bleep)

Ward Rounds

Daily Ward Round lead by Consultant of the Week with an SpR and SHO.

Room 1 babies: They have a daily Proforma that is typed up by the Night SHO and put into the notes for the day team to fill. This proforma can be found on Desktop on I:// Drive under Room 1 Daily Updates.

Room 2 and 3 Babies: A basic Ward round is documented in their medical notes on the white continuation sheet with a yellow border on one side.

It is important that ward rounds are documented as accurately as possible with documentation of changes in ventilation mode (eg: Intubated/ Optiflow/ CPAP), changes in fluid/ oral intake etc as they form an important part of documenting the progress of babies with often complex medical issues.

Each baby has their own Medical file in a trolley that is maintained by the Nursing staff and Ward Clerk.

Blue Folder for Boys/ Pink Folder for Girls

The admitting SHO/SpR are responsible for "creating" a file for a newborn baby upon admission.
During the day the NNU Ward clerk will start off an empty file with the appropriate colour, patient identifying cover sheet and label stickers.

The admitting SHOs will need to "create" the file further by including the following (Can be found in grey filing cabinet behind desk):

-Badger Admission Summary: Completed on online Badger system; can act as the admission clerking instead of paper notes.
-***Problem Sheet****:* Need to be kept updated of each Problem, management and date resolved
-***Results Sheet****:* NLD SHO responsible for updating blood test/ investigation results and adding them to this sheet and to the daily NNU handover sheets.
-***Continuation sheet***: Should have written up Admission Clerking and add extra blank sheets as spare
- ***Yellow Communication Sheet***- To document discussions with parents
- ***WHO Height/ Growth Chart (Pink for Girls/ Blue for Boys***): Need to be updated at least weekly

DOCUMENTING THE WARD ROUND (an example):

20/ 05/2019 **Consultant Ward Round- Dr Smith** BW: 1.89kg

09:45 H D 4 CW: 2.01 kg

31+2 → 31+6 HC: 31.5 cm

Problems: Prematurity
Suspected Sepsis
Jaundice

Resolved Problems: Hypoglycaemia/ Hypernatremia/RDS

Vent: SVIA, no respiratory support
CVS: Stable, no apnoea or bradys
Fluids: 150mls/kg/day of EBM every 3 hours via NGT
Meds: Caffeine, Benpen and Gentamicin D-4

Obs: HR- 130-140bpm, RR- 30-45 Sats-99-100% Temp- 36.7C
- Remains on phototherapy- D2
- No apnoeas and bradycardia
- No nursing concerns

O/E Neuro: Active and alert, soft AF, Moving all limbs, nil abnormal movements
Resp: Clear lung fields, nil recession, Good A/E bilaterally
CVS: Pink and well perfused, Good CRT, HS 1+2+ 3/6 systolic murmurs
Abdo: soft, not distended, N BS. BO opened, passed urine

Impression: Stable

Plans: 1. Chase BC- stopped Abx if negative
2. Repeat SBR in 8 hours
3. Continue with the feeding
4. CrUSS
.

Signature:
Designation:
Bleep:

- **All conversation with parents should be documented on the** yellow paper continuation sheets **filed at the back of the notes.**

Weekly Neonatal Proforma

Weekly pink summary proformas should be completed for every baby in Room 2, 3 and Transitional Care. It is the responsibility of Thursday night team to ensure this is completed for Friday morning ward rounds. Please update these during Monday to Thursday nights. These ensure that long-term issues are being addressed. They should be printed out using a **pink paper** and put into the notes.

Foetus File

There is a folder in the neonatal unit called the **"Foetus File"**. All mothers with identified antenatal problems are discussed at the prenatal meeting by the Obstetric and Neonatal Consultants and antenatal plans for the unborn baby written in this folder in anticipation of delivery. The Antenatal Co-ordinator and Neonatal team will circulate copies and file all updates in the Foetus File.

When these babies are born it should be flagged up by the midwife that they are a Foetus File baby and the notes from this folder should be obtained and placed in the newborn baby's medical case notes. All instructions for after birth should be followed and the NNU Registrar must be informed of the baby's birth. These babies should be discussed with the senior medical team and put on the handover list.

The Foetus file should be updated regularly and babies who have been born are taken off.

Neonatal Guidelines

All neonatal guidelines are available on the Trust Intranet under Workspaces →Paediatrics or →Neonatal Unit.

There is a red folder for clinical procedures in the neonatal unit. Please refer to this for practical guides.

Neonatal Drug formulary in the treatment room for guidance on neonatal prescribing dosages and infusions.

Badgernet

Badgernet is a computer database used for all Neonatal units nationally. All babies that are admitted to the neonatal unit need a Badger admission entered and printed off. You will require a login and password to access this system, which will be given to you when you start. **Don't admit a baby into Badgernet if it looks likely that they will stay less than 4 hours for observation alone**. These babies can just be

observed on NNU and then sent back to their mothers without generating an admission.

All heading of the Badgernet admission should be completed as soon as possible once the baby is admitted to NNU. The information can be obtained from the midwife delivery summary and the NNU nursing folder eg observations. You will also need the maternal notes to complete all pregnancy headings.

It is helpful to update the Badgernet system when significant changes occur daily. On discharge from the unit each baby needs a complete Badger discharge summary documenting their entire stay in the unit. This is very much easier if it is updated as we go along.

Upon discharge, once completed, give parents a copy of the letter to read, and then print out **5 copies** for the nursing staff.

POST NATAL PROTOCOLS

NIPE (Newborn Infant Physical Examination) is a computer network used to document the first Baby Check for all babies nationally. All babies that are born within the Trust need a NIPE check within 72 hours of birth. You will require a login and password to access this system, which will be given to you when you start.

Pulse Ox Guidance: All babies (NICU/Postnatal) should have their pre and post ductal saturations checked. Ideally this will be they are > 6 hours of age, but with an unwell baby do not delay. A yellow sticker will be placed in the neonatal notes with the saturations. This may have been done by the midwife. Please follow the pathway on Neonatal Pulse Oximetry guideline to act on the results.

Hip Examination: If the baby requires Hip USS as per guideline (Normal examination) then it must be booked on Cerner as outpatient *"USS Hips Both".* Routine is at 6 weeks of age (corrected Term + 6 weeks for Pre-term baby).

Urgent US scan Hips <u>within 2 weeks</u> if Has Abnormal hip examination findings as confirmed by Registrar/ Consultant.

Please make it clear on the request which timeline you want US scan to be booked under. The request form must then be printed *(Refresh→ Right click over the request→ Click re-print Order Sheet).*

<u>3 copies of US Request.</u> 1x for baby Notes, 1x to include in NIPE letter to be sent to GP and 1x copy to be taken down to the relevant consultants Secretary to ensure requests are appropriately chased and followed up. THIS IS IMPORTANT.

Blood Test

- All babies on IV Fluids/TPN require **infant U&Es** every 24 hours.
- All babies on antibiotics require two normal CRPs and negative blood cultures @ 48 hours before they can be stopped. (Call Micro at Crawley Hospital for BC results dial 5332 (Crawley shortcode) then ext 3085 for micro labs).
- Gentamicin levels are checked **2 hours before the 3rd dose**. If prescribing gentamicin ensure the time and date of gent level is put on the handover list to ensure they are done by oncall team.
- Generally, 2nd CRP is checked with the Gentamicin level, but your senior doctor may request a 2nd CRP at 24 hours ie sooner.
- **Admission Bloods**: CRP, FBC and Blood culture
  (If suspected clotting disorder or **early jaundice within 24 hours** include **GROUP and DAT**- **Samples must be handwritten**)
- **Weekly Routine bloods**: Infant U&Es, FBC, Bone Profile, Mg 2+ and LFTs.
- **NO CRP on weekly routine bloods**.
- All blood results should be documented in the flow sheet at the front of each notes. **(it is the responsibility of both day and night SHOs to update results flow sheets)**
- **When ordering bloods for babies who were sent home please order in CERNER under phlebotomy and book an appointment in CAU. Please give instructions for how parents will obtain results.**

Radiology

All X-rays should be requested on Cerner with sufficient clinical information. Contact Duty Radiographer on extension **6002** and **bleep 600 for any urgent or portable X-rays.**

New admission to SCBU with respiratory distress, Chest X-ray generally need to be done at least **4 hours of age to show RDS from preterm lungs.** Before this CXR can be done if clinically indicated ie urgently eg suspected pneumothorax, to check ETT position, high oxygen needs.

Cranial Ultrasound

All preterm infants less than 32 weeks need at least 2 cranial ultrasounds- one at birth or shortly after admission and second once they reach term corrected gestational age. **If abnormalities are found, they are done more frequently.**

Dr Vive/Dr Patel/Dr Negus or an Advanced Sonographer will do the procedure as a portable on NNU. Request should be done via SASH EPR Cerner at the beginning of each week and telephoned through to x-ray dept as a reminder.

Neonatal Follow-up

Dr Abdul Khader (Lead Neonatal Consultant) runs a high-risk neonatal follow-up clinic for babies born **less than 30 weeks**. Dr Radha runs a high risk neonatal clinic on alternate Tuesdays for babies less than 30 weeks and babies with HIE. The clinic is held at East Surrey Hospital. These babies will have follow-up for the first two years of their life and the frequency will be as per medical needs of the baby.

Outpatient Appointments

All requests for OPD appointments are written in the **Red Appointment Folder** next to NNU ward clerk station. Add a sticker with patient details and the consultant you require an appointment with. If appropriate a sentence about why follow-up is required and when the appointment should be booked for.

Retinopathy of Prematurity (ROP) Screening

ROP is recommended for all babies weighing <1500g and < 31 weeks. Babies should be screened at 4-5 weeks of life if born 27 weeks-31+6 and thereafter weekly. If ROP is not present by 36 weeks the baby will be discharge from the screening. Nursing staff may ask you to prescribe: **Cyclopentolate HCl 0.5%** 1 drop both eyes and **Phenylephrine 2.5%** 1 drop both eyes.

Neonatal Unit Time Table

0830- 0900	Teaching – Monday, Wednesday and Thursday (SCBU Staff Room)
0900- 0930	Handover
0930-1200	Ward rounds
1200-1300	Do practical procedures before ‘Quiet time 1-3pm’
1300-1400	Lunch break/ Teaching /Grand Round/ Perinatal M&M
1400-1500	Update paper works, Badgernet admissions and discharges
1500-1615	Practical procedure, chase bloods and etc.
1615-1630	Update list for evening handover
1630-1700	Evening huddle (Team update/Handover) in neonatal staff room
1700-2000	Attend all neonatal bleeps
2000-2030	Update list
2100-2130	Handover to night team who start at 9pm

Burstow Ward Time Table

0900- 0930	Handover
0930-1200	SHO-Led Ward round on babies on the neonatal handover list.
	Order investigations if required to ensure they get done promptly
	Start baby checks.
1300-1400	Registrar Review in Burstow Ward
1400-1615	Continue baby checks
1615-1630	Update list for handover, ensure you add all babies that have required medical intervention.
1630-1700	Handover on SCBU

DAILY DUTIES ON BURSTOW WARD (Post Natal Ward)

Burstow Ward is a post-natal ward catering for 28 mothers and their babies. All mother once stable after delivery are moved to here from Delivery Suite or Obstetric HDU. Burstow ward is staffed by midwives and HCAs, with Obstetric Medical Staff tending to the mothers needs post-delivery. The midwives will call on the Paediatric Burstow ward SHO for any unwell babies.

There is a MEON- Midwife Examiner of the New-born helping to do the routine baby checks most days but there are some gaps due to under staffing. It is a good idea to find out this out before starting your shift so more help can be enlisted if there are lots of baby checks to do with no MEON support.

There is a Treatment room on Burstow Ward stocked with a resuscitaire and venepuncture supplies. A list of babies who need NIPE discharge checks are kept in a folder in this room. There is also a Neonatal SHO jobs folder in a blue binder that is filled out by the midwives requesting a review. This list should be checked first thing in the morning so you can prioritise jobs according to urgency. Once babies are 6 hours old, they are eligible for baby check.

Once you have made your entry into the NIPE system and completed your baby check please print 3 copies of the NIPE summary (1 parent, 1 GP and 1 Medical Notes).

At any point if there is a baby you are worried about please contact the SPR immediately. If there are babies you would like a second opinion on or have another general queries, try to enlist the help of the SPR early on.

Eligibility of BCG Vaccination

There is a list of nationalities of children requires BCG vaccination in the Neonatal guidelines and in the Paediatric room on Burstow. All these babies will require referral for vaccination. **First check the address**. Fill out the required form (Yellow form) according to address (there are different form for Surrey and Sussex) and put it in the BCG request slot in the paediatric room. If you've prescribed the BCG vaccine its 0.05ml intradermal Injection.

Write on front of baby's notes that BCG Immunisation has been requested and include the contact number from the referral form for parents to chase up if necessary.

Attending Deliveries

Bleep 724 is used for the delivery suite and you will be called to attend all high-risk deliveries and **neonatal emergencies**.

You will be called and attend:

- Caesarean sections
- Instrumental deliveries
- Deliveries with foetal distress (pathological CTG, passage with meconium)
- Congenital anomalies
- Foetus file babies or whenever requested by the Obstetric Team

No member of the neonatal team should attend a delivery alone if they consider themselves to be inexperienced. **Request assistance early (SpR) and continue to attend deliveries with help until sufficiently confident.**

Ensure effective communication pre-delivery to assist your preparation for the delivery. You should be aware of following pre-delivery:

- Gestation and expected weight
- Multi gravida or primi?
- Mode of delivery
- **Risk factors for sepsis**
    - Invasive group B streptococcal infection in a previous baby
    - Maternal group B streptococcal colonisation, bacteriuria or infection in the current pregnancy
    - Prolonged Rupture of membranes >24hours
    - Preterm birth (<37 weeks) following spontaneous labour

- Suspected or confirmed rupture of membranes for >18 hr in a preterm birth
- intrapartum fever (1x Temp >38.5°C or 2x Temp >38°C, or confirmed or suspected chorioamnionitis
- **RED FLAG:** 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

- Maternal Health problems and medications
- Ante-natal problems identified on antenatal scans (Fetus File)

Discuss with the Neonatal Registrar if you have concerns as soon as possible.

High risk babies should be reviewed by a senior medical team if you have concerns.

- Low birth weight
- Preterm (<37/40)
- Infants of diabetic mothers
- IUGR/absent or reversed EDF on dopplers
- Poor cord gases (all babies with **pH 7.10 BE -10** need 4 hours observations on SCBU. These babies do not need **BADGER admission** unless they stay longer than 4 hours.

EARLY ONSET NEONATAL SEPSIS GUIDELINE EAST SURREY HOSPITAL, REDHILL

Babies with clinical signs of infection

Signs includes:-

Pyrexia
Hypothermia (axilla temperature < 36.5 not responding to environmental measures)
Pallor
Cyanosis
Irritability
Lethargy
Apnoea
Respiratory Distress
Hypoglycaemia with clinical signs
Rash (except Erythema toxicum or pustular melanosis)

Investigations:
Full Septic screen
FBC/CRP/U&E/LFT/Bone/Blood Culture
LP if Clinically stable and appropriate
CXR if appropriate

Treatment:
IV Benzyl Pencillin 50mg/kg BD
IV Gentamicin: 5mg/k 36 hourly
(Consider shorter duration after d/w Consultant if needed)

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

Chase Blood Culture

D/W consultant regarding Duration of treatment

Asymptomatic babies with risk factors

Premature < 37 weeks

No maternal clinical chorioamnionitis

Adequate intrapartum antibiotics
Given >4 hours prior to delivery

Observe x 12 hours

Can be discharged after 24 hours if remains clinically well with normal observations.

Inadequate intrapartum antibiotics
(<4 hours)

If Premature Labour induced due to maternal factors(eg PET):
Observe x 24 hours

If spontaneous premature labour for unknown reason or Maternal GBS urine/ swab or PPROM

Investigations:
partial septic screen
FBC/UE/CRP/Blood culture
Treatment:
IV Benzyl Pencillin 50ml/k BD
IV Gentamicin: 5 mg/K Q 36 hourly

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

If 2 CRP's <10, baby well and blood culture not positive

STOP antibiotics

Maternal Chorioamnionitis or maternal systemic sepsis
Clinical chorioamnionitis defined by combination of :

Maternal fever
Tachycardia
Raised CRP/WBC
Foul smelling vaginal discharge
Uterine tenderness
Positive blood culture
Fetal tachycardia

Investigations:

partial septic screen
FBC/UE/CRP/Blood culture
Observe x 24 hours
Treatment:
IV Benzyl Pencillin 50ml/k BD
IV Gentamicin 5mg/k Q 36 hourly

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

If 2 CRP's <10, baby well and blood culture not positive

STOP antibiotics

Term >37 weeks

Previous baby with early onset GBS sepsis

Adequate intrapartum antibiotics
Given >4 hours prior to delivery

Observe x 12 hours

Can be discharged after 24 hours if remains clinically well with normal observations.

Inadequate intrapartum antibiotics
(less than 4 hours)

Investigations:
partial septic screen
FBC/UE/CRP/Blood culture
Observe x 24 hours
Treatment:
IV Benzyl Pencillin 50ml/k BD
IV Gentamicin 5mg/k Q 36 hourly

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

If 2 CRP's <10, baby well and blood culture not positive

STOP antibiotics

Other risk factors:
Maternal GBS urine/swab positive in this pregnancy (with ruptured membranes at time of delivery)
Prolonged rupture of membranes(PROM) > 24 hours
Maternal fever (>38 °Con 2 occasions or >38.5 °C once)
Persistent fetal tachycardia during labour

ONE of the above risk factors

Adequate intrapartum antibiotics
Given >4 hours prior to delivery

Observe x 12 hours

Can be discharged after 24 hours if remains clinically well with normal observations.

Inadequate intrapartum antibiotics
(less than 4 hours)

Observe x 12vhours

Can be discharged after 24 hours if remains clinically well with normal observations.

TWO + of the above risk factors

Adequate intrapartum antibiotics
Given >4 hours prior to delivery

As maternal IV antibiotics given,can remove GBS as risk factor.If one additional risk factor, then
observe x 24 hours

If two further risk factors(not including GBS) then Treat:

Investigations:
partial septic screen

FBC/UE/CRP/Blood culture
Treatment:
IV Benzyl Pencillin 50ml/k BD
IV Gentamicin 5mg/k Q 36 hourly

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

If 2 CRP's <10, baby well and blood culture not positive

STOP antibiotics

Inadequate intrapartum antibiotics
(less than 4 hours)

Investigations:
partial septic screen
FBC/UE/CRP/Blood culture
Observe x 24 hours
Treatment:
IV Benzyl Pencillin 50ml/k BD
IV Gentamicin 5mg/k Q 36 hourly

18-24 hours post starting treatment Repeat CRP

@ 48 hours after starting treatment:-

If 2 CRP's < 10, baby well and blood culture not positive

STOP antibiotics

If any CRP is > 10, blood culture is positive or child remains clinically unwell discuss with Consultant Paediatrician for management plan.

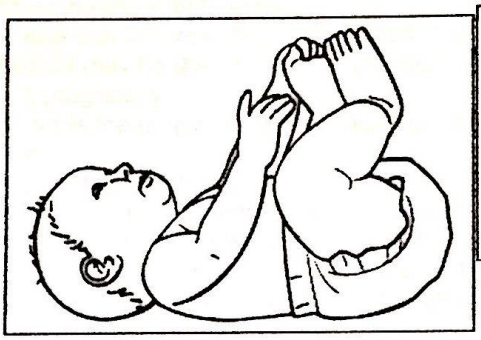
The CRP should be ideally be repeated at 18-24 hours after the first CRP, but can be repeated up to 36 hours later.

THE NEWBORN EXAMINATION

General observation:
- Wt, head circumference
- Maturity
- Muscle tone
- Reflexes: Moro, *grasp*, *suck*, *rooting*
- Is this a healthy baby who is feeding well?

Face-dysmorphic features?
- Low set or simple ears
- Inner epicanthic folds
- Upslanting or downslanting of the eyes?
- Symmetry of face and mouth
- Accessory auricles or pre-auricular pits?
- Micrognathia?

Head:
- anterior fontanelle
- skull shape and size
- scalp – swellings



Back and spine:
- Midline naevus or lipoma
- Sacral dimple, hairtuft, cutaneous marks?

Eyes:
- Red reflex
- Sclera for jaundice
- Coloboma (defect in pupil?)

Hips:
- Barlow and Ortolani tests for DDH
- Ask about risk factors (risk, FH of DDH)

Heart:
- cyanosis?
- Heart failure (tachypnoea, hepatomegaly?)
- Heart murmur?
- Femoral pulses
- Apex beat, heart rate

Mouth:
- cleft lip/palate
- *central cyanosis*
- neonatal teeth
- tongie tie

Chest:
- respiratory rate
- respiratory distress?
- Symmetry of chest movement

Limbs:
- talipes equinovarus (club foot)?
- Polydactyly (extra digits or toes)?
- Syndactyly (fused digits or toes)
- Single plamar crease and 'sandal gap' between toes
- Contractures
- Absent radii (VACTERL)

Skin:
- *pallor*
- jaundice
- cyanosis
- rashes
- birthmarks

Abdomen:
- abdominal distension or bile-stained vomiting?
- Palpable kidneys
- Hepatosplenomegaly
- Anterior abdominal wall defects

Genitalia:
- Hypospadius
- Crytorchidism (undescended testes)
- Ambiguous genitalia

Anus:
- inferforate anus?