All babies >34 weeks

Is there a pre-existing plan to treat the baby with antibiotics? (eg previous sibling invasive GBS) or is this a twin of a baby already started on IVAB?

Yes → **Screen and treat with IVAB**

No

Does the baby appear well?

No → **Medical review ASAP** → **Screen and treat with IVAB**

Yes

Good thermal care, skin to skin for at least an hour
Support first feed (ideally within first hour), perform baseline observations & weigh
Consider risk factors for sepsis and hypoglycaemia below and commence relevant pathway below.

Risk factors for sepsis:

- History of current GBS
- PROM > 18 hours preterm or >24 hours in full term.
- Maternal temp >38.0 during labour or 1 hour post delivery
- <37 weeks gestation
- Suspected chorioamnionitis
- Twin sibling with suspected sepsis
- Suspected maternal sepsis during labour.

or

Meconium stained liquor

Risk factors for hypoglycaemia:

- Preterm infant (<37 weeks)
- Birth weight <2nd centile (WHO chart)
- Baby of diabetic mother
- Maternal Beta blockers in third trimester or labour
- Cord pH <7.1 or BE >-12
- Clinical signs of hypoglycaemia.

Well, term appropriately grown infant. No risk factors

Green Car Plan
Offer 2nd feed within 6 hours.
Discharge home

Midwife to commence Early Onset Risk Calculator Pathway within ICP and contact Paed/ANNP (Bleep 121/561) with information.
Paed/ANNP to determine – Would this baby be started on empiric antibiotics according to current NICE guidance? (ie does the baby have **≥2 risk factors** for sepsis? See chart overpage)

No → Amber Care plan

No → Red Care plan

Yes → **Blue Care plan**

SHO/ANNP to take a full history and examine baby. If unwell seek immediate senior review and admit to NNU

- Access the Kaiser sepsis tool online. https://neonatalsepsiscalculator.kaiserperanente.org
- Using Incidence of Early Onset Sepsis of **1/1000** live births – complete the remaining information collected on the ICP and calculate sepsis score.
- Document risk/1000 births and also adjusted risk for well appearing, equivocal and critical illness within EOS risk Calculation Pathway in ICP.
- Circle appropriate recommendation for **each** of well appearing, equivocal and also critical illness on ICP (example chart below) Equivocal can only be assigned after a period of observation and may be required later.

Well appearing (ASR) ____/1000	***IF: No culture, no antibiotics routine vitals*** **DO:** No IVAB Blue Pathway obs for 24 hrs	***IF: No culture, no antibiotics, vitals every 4 hours*** ***DO:*** No IVAB Blue Pathway obs for 36hrs	***IF: Blood Culture or Empiric Antibiotics*** DO: Septic screen + start IVAB Blue Pathway obs for duration of stay
Equivocal (ASR) One persistent abnormal observation lasting >4 hours after birth **or** Two or more persistent abnormal observation lasting >2 hours after birth		***If: No culture no antibiotics, vitals every 4 hours*** **DO:** No IVAB Hourly obs until normal obs X2. Blue Pathway obs for 36 hours	***IF: Blood Culture or Empiric Antibiotics*** DO: Septic screen + start IVAB Hourly obs until normal obs X2. Then blue Pathway obs for duration of stay.
Clinical Illness (ASR)_____/1000		**DO: Urgent medical review – septic screen + IVAB**	

- Instigate management plan according to recommendations from the Kaiser calculator as per their current clinical status. The kaiser recommendations have East of England guidelines actions to take
- Well appearing babies with normal observations to remain with mother and continue blue care plan observations
- Well appearing babies with abnormal observations to remain with mother, hourly observations by midwife, two hourly review by the medical team. Low threshold for escalation of concerns.
- Continue 2 hourly review until observations normalised.
- If one abnormal observations for four hours or two abnormal observations for two hours then equivocal status will be triggered and management plan may change based on the Kaiser sepsis score previously calculated.
- If any observations remain abnormal or become abnormal after six hours of age then empiric antibiotics are to be commenced.
- Any baby whose observations become abnormal after having been normal should reviewed promptly and commence antibiotics if appropriate.

Midwifery actions

- For babies who have trigged the red care plan continue pre-feed blood sugar level monitoring as per red care plan for babies at risk of hypoglycaemia alongside the blue care plan observations.
- Perform hourly observations until observations are within normal limits for two consecutive hours.
- Once the observations are normal, midwife to inform SHO/ANNP the observations have normalised to inform then that further regular reviews are no longer required.
- Midwife continue and complete blue care plan observations.
- Midwife to escalate any clinical concerns to neonatal medical team.
- If any new risk factors for sepsis become apparent, midwife to inform the neonatal team ASAP as the Kaiser sepsis score may need to be recalculated and management plan changed.

Neonatal Medical actions

- Ensure the Blue care plan flowchart in ICP is fully completed. At each review, document date/time, circle on the flowchart the baby's clinical status and on-going management plan. Further notes, discussion and examinations are to be documented in the free text section of the ICP.
- Baby must be added to the neonatal handover list and only removed one all audit data collected.
- During the baby's stay they must be reviewed at least once by a member of senior medical team (consultant, associate specialist, ST4 and above or ANNP). At this point, conditions should be outlined to enable midwifery led discharge following completion of blue care plan period. This is to be clearly documented in the ICP and the relevant box signed/dated on the ICP.
- All babies commenced on antibiotics need to be both admitted to and discharged from Badgernet
- Babies who have been cared for/observed on the Blue pathway do not need a discharge letter unless any information needs to be communicated to GP or for follow up. In this case an EDS should be completed prior to discharge.

Audit

- Prior to discharge all babies who have been placed on the blue care plan (regardless of whether or not they received antibiotics) will have audit data collected. This will be done by the postnatal ward SHO and written in the Kaiser Audit book (supported by the neonatal team).
- Only once all of this data is collected the baby may by taken off the handover list.
- The data will be transferred to the electronic audit form and submitted to the network by the 7th of each month.

- Any baby readmitted to hospital via CAU within 28 days of birth with suspected sepsis should have their notes auditted.

NICE 2021 - Red Flags and Amber risk factors for sepsis.

Red Flags for Sepsis	Amber risk factors for sepsis	
Sepsis suspected in twin	Maternal GBS	Altered behaviour or tone
Apnoea	PROM >18 hours (<37/40	Poor feeding or persistent vomiting
Seizures	Prom >24 hours (>37/40)	Abnormal heart rate
Ventilated	Preterm birth <37 weeks	Signs of respiratory distress, apnoea or hypoxia
Signs of shock	Maternal pyrexia >38.0◦C	Jaundice within 24 hours
CPR required at birth	Suspected chorioamnionitis/maternal sepsis	Signs of encephalopathy
	Temperature <36.0 or >38.0	Hypo or hyperglycaemia