EMR325960

Child and Adolescent Health Service
Neonatology

CLINICAL DETERIORATION AND SEPSIS PATHWAY (NEONATAL)

Med Rec. No: ....
Surname: ....
Forename: ....
Gender: .... D.O.B. ....

AFFIX LABEL HERE

RECOGNISE

Date: ____/____/____ **Time:** ___:___ **(24hrs)** **Episode Number:**

NEONATAL SEPSIS is infection with organ dysfunction in newborn infants and is a MEDICAL EMERGENCY. For any unwell neonate SUSPECT SEPSIS UNLESS PROVEN OTHERWISE.

Use this form for neonates in the NICU or postnatal wards to support sepsis recognition and management. Clinical Guidelines and Pathways never replace clinical judgement.

HAS THE BABY DETERIORATED? *See "Recognising and Responding to Clinical Deterioration" Guideline*

COULD THIS BE SEPSIS? *See "Sepsis Neonatal" Guideline*

DOES THE BABY HAVE ANY OF THE FOLLOWING SIGNS AND SYMPTOMS?

- ☐ New / worsening respiratory distress
- ☐ Increased apnoea / bradycardia / desaturations
- ☐ Compromised circulation: mottled, CRT ≥ 3secs, cold peripheries
- ☐ Lethargic, irritable, seizures or full fontanelle
- ☐ New rash, red umbilicus, cellulitis, joint swelling
- ☐ New sustained increase in FiO_2 by > 0.1
- ☐ New / persistent lactate > 4 mmol/L or pH ≤ 7.25 or base deficit > 8 or deteriorating trend
- ☐ Sustained change in BP (up or down)
- ☐ New or persistent tachycardia
- ☐ Persistent BGL < 2.6 mmol/L or > 8.0 mmol/L
- ☐ Persistent temperature > 37.5°C or < 36.5°C

NEONATAL EARLY-ONSET SEPSIS (EOS) CALCULATOR

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Increased sepsis probability on EOS calculator? ☐ Yes ☐ No ☐ N/A
(ONLY for babies < 24 hours old AND ≥ 35 weeks gestation)

- Set Incidence to **0.4/1000 live births, OR**
- Set incidence to **1/1000 live births** (for Aboriginal / Torres Strait Islander infants)

MATERNAL RISK FACTORS FOR SEPSIS	OTHER SEPSIS RISK FACTORS (especially late-onset)
☐ Fever ≥ 38°C	☐ Family / clinician concern baby is sick
☐ Rupture of membranes > 18 hrs	☐ Multiple requests for review
☐ Maternal infection	☐ Prematurity
☐ Group B streptococcus (GBS) colonisation	☐ Indwelling catheters
☐ Clinical chorioamnionitis	☐ Recent surgery or wound
☐ Siblings who had GBS EOS	☐ Known or suspected infection – not improving
☐ History of active HSV or syphilis	☐ Aboriginal / Torres Strait Islander

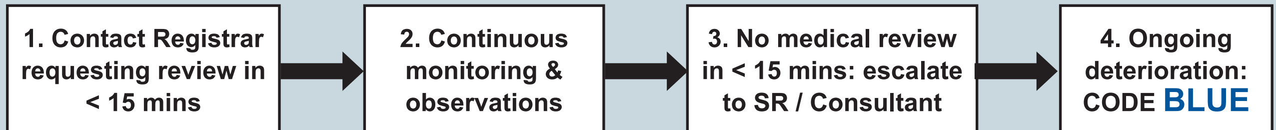
COMPLETE A SYSTEMATIC ASSESSMENT AND FULL SET OF VITAL SIGNS

SCREENING INITIATED Date: ____/____/____ Time: ___:___ (24hrs)

Print name / Designation / Signature:

RESPOND & ESCALATE

ESCALATION TO SENIOR CLINICIAN



OUTCOME OF ASSESSMENT

☐ **UNLIKELY SEPSIS**	☐ **UNLIKELY SEPSIS: INCREASED OBSERVATION REQUIRED**	☐ **SUSPECTED SEPSIS WITH OR WITHOUT SHOCK**
Consider alternative diagnoses. Re-evaluate & escalate as indicated	☐ Blood culture + CRP	Commence treatment (over page)

ALWAYS CONSIDER ALTERNATIVE AND/OR ADDITIONAL DIAGNOSES
(e.g. congenital cardiac defect, inborn error of metabolism, hypovolaemia, surgical condition)

SENIOR CLINICIAN ASSESSMENT Date: ____/____/____ Time: ___:___ (24hrs)

Print name / Designation / Signature:

DO NOT WRITE IN BINDING MARGIN

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PC897
02/25

MR488.02 CLINICAL DETERIORATION AND SEPSIS PATHWAY (NEONATAL)

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RESUSCITATION

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See "Resuscitation Neonatal" Guideline

COMPLETE ACTIONS 1 TO 5 WITHIN 60 MINUTES WITH ONGOING SYSTEMATIC ASSESSMENT

1. GET HELP

- Consult Neonatologist

WITHIN 5 min

2. AIRWAY, BREATHING, CIRCULATION

- Assess and maintain airway
- Optimise respiratory support and maintain $SpO_2 \geq 93\%$

- Continuous monitoring of vital signs
- Assess for shock
- Maintain normothermia

WITHIN 15 min

3. IV ACCESS & INVESTIGATIONS

☐ **Glucose**
Result: ______ mmol/L

☐ **Lactate**
Result: ______ mmol/L

☐ **Blood cultures**
Time: ___:___ (24hrs)

- UVC, CVAD, PIVC or IO
  Call for expert assistance after two failed attempts at cannulation
- Prioritise blood cultures (0.5 mL - 1 mL)
- Capillary gas with BGL
  BGL < 2.6 mmol/L (in infants < 48 hrs) OR < 3mmol/L (> 48 hrs):
  Give 2 ml/kg 10% glucose
- FBP and CRP; consider UEC, LFT, coagulation profile, LP, urine, viral studies including HSV

DON'T DELAY TREATMENT IF SAMPLE COLLECTION IS DIFFICULT

WITHIN 30 min

4. ANTIBIOTICS

☐ **Decision to treat**
Time: ___:___ (24hrs)

☐ **Prescribed**
Time: ___:___ (24hrs)

☐ **Commenced**
Time: ___:___ (24hrs)

KEMH Neonatal Medication Guidelines

AND/OR

CAHS ChAMP Sepsis and Bacteraemia Guideline

- **COULD THIS BE HSV?** Low threshold to add ACICLOVIR especially if there are seizures, deranged LFT, low platelets or other clinical suspicion.
- Consider IM if IV access challenging (EXCEPT VANCOMYCIN & ACICLOVIR)

5. FLUID RESUSCITATION

☐ **1st fluid bolus**
Time: ___:___ (24hrs)
Total fluid bolus volume mL/kg:
____

☐ **Inotropes started**
Time: ___:___ (24hrs)

- Circulatory compromise / shock: give 10 mL/kg 0.9% sodium chloride bolus and reassess
- Consider repeat boluses with close clinical assessment (max. 40 mL/kg)
- Consider blood products: FFP / cryoprecipitate, packed cells and/or platelets
  See "Blood Components and Blood Products: Administration" Guideline
- Commence hydrocortisone and inotropes for persistent / fluid-resistant shock and manage hypotension

WITHIN 60 min

REASSESS & REFER

6. REASSESS

- Continuous monitoring of vital signs
- Consider imaging (CXR / AXR)
- Actively seek microbiology and other results: modify treatment accordingly
- Review treatment plan AND keep family informed

REVIEW / STOP ANTIBIOTICS IF CULTURES NEGATIVE AT 36 HOURS (EOS) OR 48 HOURS (LOS) AND INVESTIGATIONS NOT CONSISTENT WITH SEPSIS OR ALTERNATIVE DIAGNOSIS REACHED

7. REFER

- Escalate care if continues to deteriorate and refer to paediatric subspecialties as indicated
- Comprehensive clinical handover (ISOBAR) ***See "Clinical Handover" Guideline***
- Ensure complete record-keeping including post sepsis care plan
- Discuss management plan with family / carers (including after discharge if appropriate)

SENIOR CLINICIAN TO CHECK FORM COMPLETION Date: ____/____/____ Time: ___:___ (24hrs)

Print name / Designation / Signature:

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