

FAMILY NAME		MRN
GIVEN NAME		<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
D.O.B. ____ / ____ / ____	M.O.	
ADDRESS		
LOCATION / WARD		
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

Facility:



NEWBORN SEPSIS PATHWAY

RECOGNISE • RESUSCITATE • REFER

This pathway is intended for the recognition and immediate management of early and late onset sepsis during the episode of care associated with the newborn's birth.

For readmission after birth please use the Paediatric Sepsis Pathways

ARE YOU CONCERNED THAT THE NEWBORN COULD HAVE SEPSIS?

Does the newborn have any of the following sepsis signs or symptoms present?

General

- | | | |
|---------------------------------------|--|--|
| <input type="checkbox"/> Pale/mottled | <input type="checkbox"/> Abnormal tone | <input type="checkbox"/> Pyrexia/hypothermic |
| <input type="checkbox"/> Lethargic | <input type="checkbox"/> Poor feeding | <input type="checkbox"/> Cool peripheries |

Respiratory

- | | | |
|--------------------------------------|--|--|
| <input type="checkbox"/> Apnoeic | <input type="checkbox"/> Grunting | <input type="checkbox"/> Chest recession |
| <input type="checkbox"/> Tachypnoeic | <input type="checkbox"/> Nasal flaring | <input type="checkbox"/> Cyanotic |

Cardiovascular system

- | | | |
|---|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Tachycardic | <input type="checkbox"/> Bradycardic | <input type="checkbox"/> Hypotensive |
| <input type="checkbox"/> Delayed capillary refill | | |

Central nervous system

- | | | |
|---|---|---|
| <input type="checkbox"/> Bulging fontanelle | <input type="checkbox"/> High pitched cry | <input type="checkbox"/> Abnormal movements |
| <input type="checkbox"/> Seizures | <input type="checkbox"/> Irritability | <input type="checkbox"/> Jittery |

Focal

- | | | |
|---|------------------------------------|--|
| <input type="checkbox"/> Rash/Petechiae | <input type="checkbox"/> Vomiting | <input type="checkbox"/> Joint swelling |
| <input type="checkbox"/> Cellulitis/Red umbilicus | <input type="checkbox"/> Diarrhoea | <input type="checkbox"/> Line associated infection |

YES

Does the newborn have any Yellow or Red Zone Observations (including oxygen saturation) on the *SNOC or is there clinician concern of sepsis?

(*Standard Newborn Observation Chart)

YES

NO

CLINICAL SUSPICION OF SEPSIS

The newborn has SEVERE SEPSIS or SEPTIC SHOCK until proven otherwise

- Sepsis is a medical emergency
- Call for a Rapid Response (as per local CERS) unless already made
- Direct close observation

The newborn may have SEPSIS

- Call a Clinical Review (as per local CERS) unless already made
 - Look for other causes of deterioration and initiate appropriate clinical care
 - Obtain early SENIOR CLINICIAN review within 30 minutes
 - Remain with the newborn
- Does the senior clinician consider the newborn has sepsis?

NO

YES

Continue to monitor observations on the SNOC

- Look for other causes of deterioration and treat as per local guidelines
- Repeat observations within 30 minutes AND increase the frequency of observations as indicated by the newborn's condition
- Document decision/diagnosis and management plan in the health care record
- Re-evaluate for sepsis if observations become abnormal or deteriorate

Commence treatment as per sepsis resuscitation guideline (over page) AND inform the Attending Medical Officer (as per local CERS)

Discuss management plan with the newborn's family/carers

RECOGNISE

RESPOND & ESCALATE

NEWBORN SEPSIS PATHWAY

SMR060.403

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Sepsis recognition

Date: ____ / ____ / ____ Time: ____ : ____

Clinical Review

Rapid Response

Consider other causes of deterioration (such as congenital heart disease, hypovolaemia or metabolic disease) until sepsis is confirmed or if the newborn infant does not respond to treatment as expected

Continually monitor, assess and manage the newborn's airway, breathing and circulation every 30 – 60 seconds (*connect monitoring equipment e.g ECG, SpO₂, BP, thermometer*)

Correct problems with airway and breathing before proceeding to circulation

Consider supporting the thermal environment to keep newborn warm during ongoing management

Consider potential source of sepsis

A

Airway - Assess and maintain patent airway

Position Suction
 Adjunct e.g. Laryngeal mask (LMA)/guedel

B

Breathing - Assess and administer respiratory support if required

Oxygen IPPV
 CPAP

C

Circulation - Assess and consider need for circulatory support

Obtain vascular access (IV / Umbilical / Intraosseous) and blood collection

Call for expert assistance after two failed attempts at cannulation and/or consider access via umbilical/intraosseous route

Peripheral IV Umbilical Intraosseous (*contraindicated if <2kg*)

PRIORITY

Collect Blood Glucose Yes

Collect Blood Gas / Lactate Yes Not obtained

Collect Blood Cultures Yes Not obtained

DON'T EVER FORGET TO CHECK BLOOD GLUCOSE

Dependent on volume of blood sample/second collection consider taking

FBC EUC LFT
 CRP Coags Procalcitonin
 Other (Specify):

RESUSCITATE

Holes Punched as per AS2828.1: 2012
BINDING MARGIN - NO WRITING



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NEWBORN SEPSIS PATHWAY



SMR060403

RESUSCITATE

C	<p>Circulation</p> <p>ANTIBIOTICS ADMINISTERED Yes <input type="checkbox"/></p> <p>Date: ____ / ____ / ____ Time: ____ : ____</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p>Prescribe and administer IV antibiotics within 60 minutes of recognition</p> <p>Aim to obtain at least one set of blood cultures prior to antibiotic administration. If difficult to obtain</p> <p style="text-align: center;">DO NOT delay antibiotics</p> <p>Consider alternate source of infection (including viral) and/or resistance</p> <p style="text-align: center;">Refer to Attending Medical Officer for antibiotic prescribing regimen</p> </div>	<p>FLUID RESUSCITATION Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Date: ____ / ____ / ____ Time: ____ : ____</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p style="text-align: center;"><i>Aim for improvement in heart rate, capillary refill or colour</i></p> <p>Administer initial 10mL/kg 0.9% sodium chloride <input type="checkbox"/></p> <p>Reassess need for circulation support <input type="checkbox"/></p> <p>If required, repeat 10mL/kg 0.9% sodium chloride <input type="checkbox"/></p> <p>Reassess need for circulation support <input type="checkbox"/></p> <p style="text-align: center;">Before further fluid bolus refer to Attending Medical Officer/Tiered Maternity and Neonatal Network and consider vasopressors</p> </div>
	<p>Where available refer to local guidelines for IV antibiotics and fluid resuscitation</p>	

D	Disability - Assess lethargy, tone, cry, response and posture
E	Exposure - Fully assess the newborn. Prescribe any additional tests and investigations. Reassess and identify source of sepsis. Review maternal tests and investigations
F	Fluid - Monitor and document strict fluid input/output (e.g. measure the nappy weight)
G	Check Blood Glucose Level - Manage as per local guidelines

Monitor, Reassess and Treat

Continue to assess Airway, Breathing and Circulation and treat accordingly

Monitor and assess for signs of deterioration and escalate as per local CERS

INTENSIVE CARE MAY BE REQUIRED

REFER

Discuss the newborn's condition with the Attending Medical Officer	<input type="checkbox"/> Yes
Update the mother's care team on the newborn's condition	<input type="checkbox"/> Yes
Discuss the management plan with the newborn's family / carers	<input type="checkbox"/> Yes
Sepsis management plan documented by a medical officer in the health care record as per page 4 (over)	<input type="checkbox"/> Yes
Does the local/regional neonatal expert/Tiered Maternity and Neonatal Network or NETS need to be contacted for advice on management and referral?	<input type="checkbox"/> Yes <input type="checkbox"/> No

NETS Tel: **1300 36 2500**
Ensure clinical handover is given using ISBAR

Name: _____ Designation: _____ Signature: _____

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SEPSIS MANAGEMENT PLAN

Newborns with presumed sepsis are at high risk of deterioration despite initial resuscitation with intravenous antibiotics and fluids. These newborns require a management plan that must be discussed with the Attending Medical Officer (AMO). The Infectious Disease/Clinical Microbiology Specialist and Antimicrobial Stewardship team are to be consulted where necessary. The management plan should be communicated to the Senior Medical Officer, Midwife/Nurse in Charge, and the newborns family/carers.

Specific management plans are to be documented in the newborn's health care record

			Complete
Initial 24 hours	Monitoring	<ul style="list-style-type: none"> Initiate continuous cardiorespiratory/oximetry monitoring Prescribe the frequency of documented observations <p>Minimum recommendation every 30 minutes for 2 hours, then hourly for 4 hours (continue as directed by Senior Medical Officer)</p> <ul style="list-style-type: none"> Monitor Blood Glucose as per local guidelines Monitor and reassess for signs of sepsis - clinical deterioration may include one or more of the following: <div style="background-color: #e0e0e0; padding: 5px;"> Pale in colour, mottled, abnormal tone Apnoea, tachypnoea (respiratory rate in the Red or Yellow Zone) Persistent tachycardia, slow capillary refill (> 3 seconds), bradycardia, hypotension Hypothermia Acidosis or increasing serum lactate level Hypoglycaemia, thrombocytopenia, leukopenia or abnormal coagulation </div> <p>If deteriorating (has any Red or Yellow Zone criteria), escalate as per your local CERS and inform AMO</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Fluid resuscitation	<ul style="list-style-type: none"> Prescribe IV fluids as appropriate based on the newborn's condition <p><i>Monitor for signs of fluid overload/hypovolaemia</i></p>	<input type="checkbox"/>
	Reassess	<ul style="list-style-type: none"> Confirm diagnosis and consider other causes of deterioration (e.g. congenital heart disease, metabolic disorders, hypovolaemia) Check preliminary results and consider repeats <p><i>If the newborn is neutropenic, review antibiotics and change if required</i></p>	<input type="checkbox"/> <input type="checkbox"/>
	Review treatment/management	<ul style="list-style-type: none"> Discuss with AMO Document a plan to continue, change or cease antibiotics Continue monitoring for signs of deterioration Senior Medical Officer to discuss the goals of care with the newborn's family/carers 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
24 - 48 hours	Reassess	<ul style="list-style-type: none"> Actively seek microbiology/investigation results and review Confirm diagnosis and document source of sepsis in the health care record Discuss with AMO Document a plan to continue, change or cease antibiotics Repeat biochemistry/haematology as indicated Update the mother's care team on the newborn's condition/diagnosis Continue monitoring for signs of deterioration 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Continue to monitor as per newborn's condition – observations, medical review, antibiotics

Holes Punched as per AS2828.1: 2012
 BINDING MARGIN - NO WRITING

