THE TWEED/BYRON HEALTH SERVICE GROUP	EMERGENCY MEDICINE DEPARTMENT PAEDIATRIC PROTOCOLS & GUIDELINES	Policy Number: NC-TWB-CLP-6862-13
	Date Issued: November 2013 Last Review Date: Next Review: 26/11/2015 Authority: Dr Robert Davies, Network Director Emergency Medicine	Authority Initial:

PAEDIATRIC SEPSIS PATHWAY v1

Use local febrile neutropenia guideline if the patient has haematology/oncology diagnosis and notify Pediatrician

RECOGNISE

Does your patient have risk factors, signs or symptoms of infection?

- ❑ **Signs of toxicity** alertness, arousal or activity decreased; colour pale or mottled; cool peripheries; cry weak; grunting; rigors
- ❑ **Non-blanching rash**
- ❑ **Clinician concern of sepsis**
- ❑ **High level parental concern**
- ❑ **3 months of age or younger** (corrected)
- ❑ **Re-presentation within 48 hours**
- ❑ **Recent surgery**
- ❑ **Indwelling medical device**
- ❑ **Immunocompromised** e.g. asplenia, malignancy, chronic steroid use

AND

Does your patient have 2 Yellow Zone BTF or 1 Red Zone BTF criteria?

Note: If patient is immunocompromised only 1 BTF criterion required

☐ Yellow Zone	Respiratory Rate	☐ Red Zone
☐ Yellow Zone	Respiratory Distress	☐ Red Zone
☐ Yellow Zone	Heart Rate	☐ Red Zone
☐ ≥ 3 sec	Central Capillary Refill	☐ ≥ 5 sec
☐ **V**oice	Level of Consciousness (AVPU)	☐ **P**ain or **U**nresponsive
☐ Yellow Zone	Temperature	☐ Red Zone OR ≥ 38°C if less than 4 weeks of age

NO

- Continue observations regularly
- Manage and reassess
- Sepsis may still be of concern
- Refer to Recognition of the Sick Baby or Child and/or Fever CPG

YES
Senior Clinician Review

- Urgent blood gas (if available)
- Obtain IV access (if indicated)
- Blood culture, lactate, procalcitonin, BGL, FBC & EUC

Does your patient have any of the additional criteria?

- ❑ **SBP in BTF Yellow/Red Zone**
- ❑ **Base Excess ≤ -5**
- ❑ **Lactate ≥ 4**
- ❑ **Ongoing clinician concern**

RESPOND & ESCALATE

NO

Patient may have SEPSIS

- **Escalate to Senior Clinician and/or Paediatrician within 30 minutes**
- Monitor vital signs and fluid balance
- IV access and IV fluids
- Heightened concern if lactate > 2
- Investigate source of infection e.g. cultures/urine MC&S/swabs/CXR
- Do not delay administering antibiotics if IV access or septic screen unsuccessful
- **Administer empirical antibiotics within 1hr unless other diagnosis more likely**

YES

PATIENT HAS SEVERE SEPSIS or SEPTIC SHOCK until proven otherwise

- **Escalate to FACEM/Paediatrician**
- **Escalate immediately as per local CERS**
- **Expedite transfer to resuscitation area or equivalent**
- **Immediate IV/IO access, fluid resuscitation and antibiotics**

TURN OVER PAGE FOR RESUSCITATION GUIDELINE

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PAEDIATRIC SEPSIS PATHWAY v1

GET HELP as per local CERS

RESUSCITATE & RE-ASSESS

A

Maintain patent airway

B

Give oxygen **Monitor: Resp rate SpO_2 Resp distress**
Maintain SpO_2 > 95%

C

Intravenous access and collect:
❑ FBC ❑ UEC ❑ LFTs ❑ Coags
❑ PCT ❑ VBG ❑ Blood culture(s) ❑ BGL
❑ Lactate ❑ BE
Consider intraosseous access after two failed IVC attempts or 60 seconds

Fluid resuscitation **Monitor: HR Capillary refill BP Colour**
Give 0.9% NaCl 20mL/kg bolus STAT
Repeat 20mL/kg bolus if no improvement in heart rate, capillary refill, colour or perfusion

START EMPIRICAL ANTIBIOTICS WITHIN 60 MINUTES
Neonatal or Paediatric First Dose Empirical IV Antibiotic Guideline

D

Assess level of consciousness **Monitor: LOC**

E

Examine patient for source of sepsis **Monitor: Temperature**
Collect appropriate swabs, urine MCS, NPA, CXR

F

Fluid balance **Monitor: Urine output**
Consider indwelling catheter
Maintain urine output ≥1mL/kg/hr

RE-ASSESS

Continue monitoring

Signs of improvement:
Improved LOC
Improved capillary refill & BP
Improved colour
Decreased lactate
Decreased tachycardia
Urine output ≥1mL/kg/hr

REFER

IF NO IMPROVEMENT ADDITIONAL MANAGEMENT IS REQUIRED

This child may need transfer to a Paediatric Intensive Care Unit

Seek advice immediately from QLD QCC (1300 79 9727)
or NETS (1300 36 2500)
in collaboration with local/regional paediatric experts
or consult paediatric intensivist within your hospital if available

Consider and/or prepare for:
1. Other diagnoses or contributing factors
2. Further IV/IO 20mL/kg fluid boluses of 0.9% NaCl or colloid
3. Intubation
4. Inotropes to achieve SBP above the Red Zone threshold
5. Corticosteriods (discuss with NETS/paediatric intensivist)
6. Correct hypocalcaemia and hypoglycaemia if present