

Early Management of Severe Paediatric Sepsis

0
min

RECOGNITION

- Fever or hypothermia
- Tachycardia
- Tachypnoea +/- hypoxia
- Altered conscious state / unwell appearance
- Hypotension is a late sign
- *Warm shock* – wide pulse pressure, rapid capillary refill
- *Cold shock* – narrow pulse pressure, prolonged capillary refill

Apply oxygen and continuous cardiorespiratory monitoring

< 15
min

IV ACCESS

- Take blood culture, venous gas and blood glucose
- Insert IO if no IV access within 15 minutes

< 30
min

ANTIBIOTICS

- Give initial antibiotics **on cannulation as a push**
- If no IV/IO access within 30 minutes, give IM Ceftriaxone 50mg/kg
- Once IV access is obtained immediately give full IV antibiotic doses

IV FLUID

- Initial bolus **20ml/kg Normal Saline as a push** over 5-10 minutes (*not* through infusion pump)
- Monitor vital signs and conscious state
- If required give additional fluid boluses as 4% albumin to a max total vol 40ml/kg

< 60
min

INOTROPE

- If persisting hypotension after 40ml/kg fluid give: **Noradrenaline** (0.05-0.2 mcg/kg/min)
- Consider Dobutamine for cold shock (5-10 mcg/kg/min)
- Inotropes can initially be given via a peripheral IV
- Correct hypocalcaemia, get echocardiograph

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ANTIBIOTICS

- Age < 1 month: **Cefotaxime** 50mg/kg IV + **Benzylpenicillin** 60mg/kg IV
- Age > 1 month: **Ceftriaxone** 50mg/kg IV (2g) + **Flucloxacillin** 50mg/kg IV (2g)
- For oncology patients with fever and risk of neutropaenia: **Piperacillin / Tazobactam** 100mg/kg IV (3g). Amikacin +/- vancomycin if severely unwell / high risk

IV FLUID

- Children needing >40ml/kg fluid boluses should be seen by PICU

INOTROPE

- For peripheral administration:
Noradrenaline 0.15mg/kg in 500ml 5% dex + 0.9%NaCl
10ml/hr = 0.05 mcg/kg/min

RESPIRATORY SUPPORT (beyond oxygen)

- In a patient with *normal* conscious state consider non-invasive ventilation
- In a patient with *altered* conscious state consider intubation

FURTHER MANAGEMENT

- If lactate >4mmol/dL: repeat after ~2 hours of resuscitation. Progress is reduction in lactate by >10%
- Consider **Ketamine** 0.5-2mg/kg for procedural sedation
- Secondary resuscitation measures should be discussed with PICU

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