

0-15 minutes

15-30 minutes

30-60 minutes

## Activate Paediatric Sepsis 6

Full Monitoring (O2 Saturation/ECG/BP on 3min cycles)

1. Give 100% O2
2. **ACTIVATE PEDIATRIC RESUS TEAM (Pediatrician, Anaesthesia)**
3. **Urgent IV/IO access** – take blood gas, cultures, glucose, FBC, lactate, coags, liver and kidney function

## If poor respiratory effort

Start **bag mask ventilation** (+/- oral airway)

Call for urgent **Anaesthetic/ICU help**

## Paediatric Sepsis 6

1. Give **10-20ml/kg 0.9% Saline Bolus** as quick as possible (push by hand)
2. Give **Antibiotics** as per local guidelines (*confirm allergy*)
  - If BM <3mmol give 2ml/kg 10% dextrose and recheck
  - Get 2<sup>nd</sup>/IV/IO access and reassess for shock (prolonged CRT/Tachycardia/hypotension)

## Ongoing fluid resus and inadequate breathing

### Prepare to INTUBATE ([KIDS checklist](#))

- Most experienced operator
- Cuffed oral ET tube
- RSI (use cardio-stable drugs e.g. Ketamine)
- Prepare Resus drugs (risk of cardiac arrest)
- **Peripheral strength Adrenaline prepared and running at low dose**
- 20ml/kg volume bolus drawn up

CALL

KIDS

0300

200

1100

**Still in SHOCK** – 2<sup>nd</sup> 10-20mls/kg 0.9% saline over 5-10minutes

Start preparing peripheral strength adrenaline ([KIDS drug calculator](#)).  
Assess for hepatomegaly, basal crackles with each fluid bolus

**Still in SHOCK** – 3<sup>rd</sup> 10- 20mls/kg 0.9% Saline over 5-10minutes

Start Adrenaline 0.1mcg/kg/min (IV/IO) ([KIDS drug calculator](#))

Prepare to Intubate ([KIDS checklist](#))

## Discuss with KIDS consultant

- Arterial line and transduce
- Central Venous Catheter (if local expertise available)
- Foley's catheter – strict input/output balance
- Orogastric tube on free drainage
- Monitor Lactate clearance regular blood gases
- Further inotropes/hydrocortisone
- Electrolyte imbalance – aim for ionised Calcium >1mmol/L
- Severe acidosis – pH <7.2 despite fluid resus
- Optimum Hb and Platelet count
- Coagulopathy management

## Recognition of Sepsis:

1. Child unwell, parental concerns or PEWS triggered:
2. Could this be an infection?

## Goal is to reverse shock

### Assess:

- If vital signs are within normal limits for age
- If Pulse volume is normal and CRT <2seconds
- If lactate is declining to <2mmol
- If Urine output >1ml/kg/hr
- If serum glucose is normal

If not achieving above goals consider other differential diagnosis:

**Tension pneumothorax, Tamponade - pericardial effusion, Toxin ingestion, metabolic disorder, pulmonary Thromboembolism, Anaphylaxis, Hemorrhage, Myocarditis, Arrhythmia, Adrenal insufficiency, Hypothyroidism, Intussusception/volvulus.**

If child with suspected/proven infection has at least 2 of (or 1 if immunocompromised)

- Core temp <36°C or >38.5°C (38°C if immunocompromised)
- Moderate Tachycardia/Tachypnoea
- Altered Mental state (e.g. Irritable/lethargy/floppiness/sleepiness)
- Reduced peripheral perfusion/prolonged cap refill (>2seconds)
- Decreased urine output (<1ml/kg/hr)

OR

## RED FLAG SIGNS (ANY ONE PRESENT)

- Hypotension
- Weak, high pitched or continuous cry
- < 3months old
- Severe Tachycardia/Tachypnoea (in ≤11year old Bradycardia <60bpm)
- Lactate >2mmol/l
- V, P or U on AVPU
- SpO2 <91%/grunting/cyanosis/apnoea
- Non blanching rash/mottled skin
- Immunocompromised
- Lactate >2mmol/l
- Rapid Onset (<6hours)

Age	Respiratory Rate	Heart Rate	Systolic BP (50 <sup>th</sup> Centile)
<1year	30-40	110-160	80-90
1-2years	25-35	100-150	85-95
2-5years	25-30	95-140	85-100
5-12years	20-25	80-120	90-110
>12years	15-20	60-100	100-120

Age	Tachypnoea		Tachycardia	
	Severe	Moderate	Severe	Moderate
<1 year	≥60	50-59	≥160	150-159
1-2 years	≥50	40-49	≥150	140-149
3-4 years	≥40	35-39	≥140	130-139
5 years	≥29	24-28	≥130	120-129
6-7 years	≥27	24-26	≥120	110-119
8-11 years	≥25	22-24	≥115	104-114
≥12 years	≥25	21-24	≥130	91-130