

RECOGNITION & MANAGEMENT OF SEPTIC SHOCK**Recognition****Think: could this child have SEPSIS or SEPTIC SHOCK?****If in doubt, consult a senior clinician.**

If a child with suspected or proven infection AND has at least 2 of the following:

- Core temperature < 36°C or > 38.5°C
- Inappropriate tachycardia (Refer to local criteria / APLS Guidance)
- Altered mental state (including: sleepiness / irritability / lethargy / floppiness)
- Reduced peripheral perfusion / prolonged capillary refill / Flash sign
- BP – wide pulse pressure

Age	Heart rate	Respiratory Rate	Systolic BP
< 1 year	>180 ; <100	>60 or requiring respiratory support	< 70 mmHg
2 – 5 year	>140; <90	>50 or requiring respiratory support	< 70 + age x 2
6 – 12 year	>130	>18 or requiring respiratory support	< 70 + age x 2 up to 10 years <90 beyond 10 years

Management within the first hour of admission

1. **Give high flow oxygen:**
2. **Obtain intravenous/ intra-osseous access & take blood tests:**
 - a. Blood cultures
 - b. Blood glucose - treat low blood glucose
 - c. Blood gas (+ FBC, lactate & CRP as able for baseline)
3. **Give IV or IO antibiotics: - Broad spectrum cover as per local policy**
4. **Consider fluid resuscitation:**
 - a. Aim to restore normal circulating volume and physiological parameters
 - b. Titrate 20 ml/kg Isotonic Fluid over 5 - 10 min and repeat if necessary
 - c. Caution with fluid overload > Examine for crepitations& hepatomegaly
5. **Involve senior clinicians / specialists early:**
6. **Consider inotropic support early:**
 - a. If normal physiological parameters are not restored after ≥ 40 ml/kg fluids
 - b. N adrenaline or dopamine may be given via peripheral IV or IO access

Definitions (adapted from the International Paediatric Sepsis Consensus Conference definitions):

1. Infection - Proven infection by positive culture, microscopy, or PCR test caused by any pathogen OR - Clinical syndrome associated with a high probability of infection, as evidenced from clinical examination, imaging, or laboratory tests
2. Sepsis - Infection + Systemic Inflammatory Response Syndrome (tachycardia, tachypnoea, core temperature $>38.5^{\circ}\text{C}$ or $<36^{\circ}\text{C}$ white cell count elevated or depressed for age.
3. Severe sepsis – Sepsis plus one of the following: cardiovascular dysfunction OR acute respiratory distress syndrome OR - Two or more other organ dysfunctions (respiratory, renal, neurologic, hematologic, or hepatic)
4. Septic shock - Severe Sepsis with cardiovascular dysfunction