

Sepsis & Septic Shock Algorithm

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.

See 32. Sepsis & Septic Shock Diagnostic Criteria

TO BE COMPLETED WITHIN 1 HOUR OF IDENTIFICATION OF SEPSIS/SEPTIC SHOCK

- Monitor, support ABCs
- Check vital signs (BP, PR, RR, SPO₂, T° C, **RBS**)
- Start Oxygen **IF** SPO₂ < 94%. Maintain SPO₂ ≥ 94%
- Establish IV Access and send samples for **FBC, MPS, LFTs, UEC, VBG, Serum lactate**
- Perform brief, targeted history, physical exam
- Obtaining appropriate cultures before antimicrobial therapy is initiated if such cultures do not cause significant delay in the start of antimicrobial(s). Draw **2 sets of blood cultures 10mL each** (both aerobic and anaerobic bottles) from **different sites**.
- Administer **30ml/kg NS or RL for Hypotension or Lactate ≥ 2 mmol/L**
- Give **ANTIBIOTICS**
 - Ceftriaxone 2gm IV stat
 - For probable **Neutropenic** patients or if patient has been **admitted in hospital in the last 3 months** (Hospital Acquired Infection)
 - Imipenem 500 mg IV infusion over 3 hrs then QID for **general sepsis**
 - OR
 - Meropenem 1gm IV infusion over 3 hrs then TDS for possible **CNS infections**
- Give antipyretic if indicated (Paracetamol 1gm IV)
- CXR; Urinalysis + MCS; ? Stool MCS; ? CSF MCS
- **Monitor urine output hourly**

Repeat vital signs (BP, MAP, PR, RR, SPO₂, T° C, Serum lactate) after 1 hour

Features of **SHOCK** despite adequate fluid resuscitation (> 30ml/kg)?

- MAP < 65mmHg
- Signs of Shock (tachypnoea, cool clammy skin, cool peripheries, hypotensive, tachycardia)
- Urine output < 0.5mL/kg/hour
- Hyperlactatemia (> 2 mmol/L)

Yes

No

SEPTIC SHOCK

- Consult a **Physician** and continue with the algorithm
- Start peripheral vasopressors if MAP < 65mmHg in the face of life-threatening hypotension, even when hypovolemia has not yet been resolved -
Norepinephrine (0.1–1.3 µg/kg/min) and/or Adrenaline (0.05-0.3µg/kg/min).
Titrate vasopressors to a **MAP ≥ 65 mmHg** to preserve tissue perfusion.

Consult a **Physician**
Consider Admission

Hemodynamic stability achieved with **adequate fluid resuscitation (> 30ml/kg) and vasopressor therapy?**

- MAP < 65mmHg
- Signs of shock as above
- Urine output < 0.5mL/kg/hour
- Hyperlactatemia (> 2 mmol/L)

Yes

Admit HDU/ICU

No

Give **Hydrocortisone 200mg IV bolus**

Evidence of tissue hypo perfusion persists **despite adequate intravascular volume and adequate MAP?**

- Hyperlactatemia (> 2 mmol/L)
- Decreased capillary refill or mottling

Yes

- Give **Dobutamine infusion up to 20 µg/kg/min** (+ vasopressor if in use) in the presence of;
 - a) myocardial dysfunction as suggested by elevated cardiac filling pressures and low cardiac output, or
 - b) ongoing signs of hypo perfusion, despite achieving adequate intravascular volume and adequate MAP
- **Admit HDU/ICU**