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 24. SEPSIS & SEPTIC SHOCK DIAGNOSTIC CRITERIA

- Monitor, support ABCs
- Check vital signs (BP, PR, RR, SPO_2, T^o C, **RBS**)
- Start Oxygen **IF** SPO_2 < 94%. Maintain $SPO_2 \geq 94\%$
- 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 (> 45 minutes) 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 ≥ 4 WITHIN 3 HOURS**
- **Give ANTIBIOTICS as an EMERGENCY (**within the **FIRST HOUR** of recognition of **Sepsis/Septic Shock**)
  - **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, SPO_2, T^oC, Serum lactate) HOURLY

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 (> 1 mmol/L)

Yes

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.

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 (> 1 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 (> 1 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**

No → **Consult a Physician Consider Admission**