**Starship Clinical Guidelines - MANAGEMENT of SEPTIC SHOCK/SEVERE SEPSIS in CED**

### Time Targets

- **0min**
  - Patient to resuscitation room.
  - Call for help from SMO early
  - O2 via mask 8L/min
  - Establish vascular access (IV/IO, PORT)
  - Check blood glucose level
  - Take bloods once access obtained:
    - BC, FBC, UEC, LFTs, coags and lactate (venous gas)*
    - Do not delay fluid/antibiotics for blood tests
  - Commence fluid resuscitation with 0.9 % saline
  - If moribund, GCS<9:
    - Call PICU immediately
    - Prepare for intubation

- **5min**
  - Push fluid boluses of 20ml/kg 0.9 % saline or Plasma-Lyte 148 until heart rate/perfusion improves/shock reversed:
    - May need 40-60ml/kg in first 30min
    - Then 4% albumin OR blood products as indicated
    - Commence antibiotics as soon as access obtained:
      - Cefotaxime 100mg/kg load
      - PLUS amoxicillin 50mg/kg if <3months of age
      - See febrile neutropenia guideline if relevant
  - Correct hypoglycaemia (if present) with 2ml/kg 10% dextrose.

- **5min to 30min**
  - Consider early PICU review:
    - Mandatory for ALL patients receiving volumes ≥ 60ml/kg, lactate >4 or significant coagulopathy
  - Obtain additional vascular access.

- **30min to 60min**
  - Commence peripheral inotropes after discussion with CED Consultant and PICU.
    - Inotropes can be given via a good peripheral IV/I/0 whilst awaiting central access:
      - Adrenaline 0.05-0.3 μg/kg/min OR
      - Dopamine 5 μg/kg/min as first line agents
      - Noradrenaline for “warm shock” but preferably with CVL 0.05-0.3 μg/kg/min
    - Ongoing fluid resuscitation as needed
    - Prepare for intubation/ventilation
      - May be required at any step.
    - Consider hydrocortisone for fluid refractory, catecholamine resistant shock and suspected absolute adrenal insufficiency.
    - Ensure results checked/handed over on transfer to PICU

### Recognition:

- Fever/hypothermia or other evidence of infection (e.g. petechial rash)
- AND one or more signs of impaired tissue perfusion
  - Cold shock: cool peripheries, CRT>2sec, reduced peripheral pulses
  - Warm shock: brisk CRT, bounding pulses, wide pulse pressure
  - Altered LOC/drowsiness
  - Reduced urine output
  - Tachycardia disproportionate to fever, anxiety, meds
  - Bradycardia
  - Hypotension (a LATE sign in paediatric septic shock)
- AND “Unwell” appearance

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