SEPSIS MANAGEMENT PLAN

Patients with presumed sepsis are at a high risk of deterioration despite initial resuscitation with intravenous antibiotics and fluids. These patients require a management plan which needs to be discussed with the Attending Medical Officer (AMO). The Infectious Diseases Physician/Clinical Microbiologist and Antimicrobial Stewardship (AMS) team are to be consulted where necessary. This plan needs to be communicated to the Senior Medical Officer, Nurse in Charge, patient and patient’s family/carers.

Specific management plans are to be documented in the health care record.

Continue monitoring

- Prescribe the frequency of observations
- Minimum recommendation every 30 minutes for 2 hours, then hourly for 4 hours
- Monitor and reassess for signs of deterioration which may include one or more of the following:
  - Respiratory rate in the Red or Yellow Zone
  - Systolic blood pressure < 100mmHg
  - Decreased or no improvement in level of consciousness
  - Urine output less than 0.5mL/kg/hr
  - No improvement in serum lactate level

If deteriorating (has any Red or Yellow Zone criteria), escalate as per local CERS and inform AMO

Initial 24 hours

- **Monitor and reassess for signs of deterioration which may include one or more of the following:**
  - Respiratory rate in the Red or Yellow Zone
  - Systolic blood pressure < 100mmHg
  - Decreased or no improvement in level of consciousness
  - Urine output less than 0.5mL/kg/hr
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- **Review treatment/management**
  - Discuss with AMO
  - Document plan to continue, change or cease antibiotics
  - Continue monitoring for deterioration including urine output
  - If the patient’s recovery is uncertain discuss the goals of care with the patient and their family/carers

Fluid resuscitation

- **Prescribe IV fluids as appropriate based on the patient’s condition**
- Monitor for signs of pulmonary oedema

Reassess

- Confirm diagnosis and consider other causes of deterioration
- Check preliminary results
- If patient is neutropenic, review antibiotics and change if required
- Document plan to continue, change or cease antibiotics
- Discuss with AMO
- Confirm diagnosis, document source of sepsis in the health care record
- Actively seek microbiology/investigation results and review
- Discuss with AMO
- Consider seeking advice from infectious disease/microbiology physician
- Document plan to continue, change or cease antibiotics
- Obtain AMS approval for restricted antibiotics
- Repeat biochemistry as indicated
- Continue monitoring for deterioration including urine output

24 - 48 hours

- **Reassess**
  - If deteriorating (has any Red or Yellow Zone criteria), escalate as per local CERS and inform AMO

Specific observations

- **Lumbar puncture**: If suspicion of meningitis
- **Obtain blood cultures**: If sepsis likely
- **Obtain Gram stain and sensitivity**: If sepsis likely
- **Obtain PCR**: If sepsis likely
- **Obtain culture and sensitivity**: If sepsis likely
- **Obtain chest X-ray**: If sepsis likely
- **Obtain ultrasound**: If sepsis likely
- **Obtain CT scan**: If sepsis likely
- **Obtain MRI**: If sepsis likely

Continue monitoring as per patient’s condition – observations, medical review, antibiotics
### Sepsis Pathway

#### ADULT

**Emergency Department**
- **Airway** - Assess and maintain patent airway
- **Breathing** - Assess and administer oxygen if required; aim SpO₂ ≥ 95% (or 88-92% for COPD)
- **Circulation** - Vascular access, blood/culture collection, fluid resuscitation and antibiotics
  - Collect Blood Cultures
    - Take two (2) sets from two (2) separate sites
  - Consider intravenous access after two failed attempts at cannulation
  - For patients with a central venous access device (CVAD), take one set from the CVAD plus one set peripherally
- **Assess and administer oxygen if required; aim SpO₂ ≥ 95% (or 88-92% for COPD)**
- **Collect Lactate**
  - Lactate ≥ 2mmol/L after adequate fluid resuscitation is significant
- **Collect FBC, EUC, CRP/PCT, LFTs, coags and glucose**
- **BGL > 7.7mmol/L in the absence of diabetes may be significant**
- **Order and collect other investigations and cultures prior to antibiotics (unless a SENIOR CLINICIAN assesses that this would result in an unacceptable delay in commencing antibiotic therapy)**
- **Eg. Urine, cerebrospinal fluid, wound swab, joint or organ space aspirate**
- **Document investigations and cultures collected:**
  - Initial 20mL/kg bolus STAT, if no response repeat 20mL/kg STAT
  - Initial 250-500mL bolus STAT, if no response repeat 250-500mL STAT
- **If no response in SBP after 1000mL call a Rapid Response**
- **Monitor for signs of pulmonary oedema and review at risk patients more frequently**
- **Consider commencement of vasopressors**
- **If no improvement**
- **Intensive Care may be required**
- **Discuss the management plan with the patient and their family/carers**
- **Sepsis management plan documented by a medical officer in the health care record**
- **Consult Infectious Diseases Physician or Clinical Microbiologist if required.**

**Inpatient**
- **Ward:** _________________________
- **Triage category:** 1 2 3 4 5
- **Clinical Review**
- **Rapid Response**
- **Airway** - Assess and maintain patent airway
- **Breathing** - Assess and administer oxygen if required; aim SpO₂ ≥ 95% (or 88-92% for COPD)
- **Circulation** - Vascular access, blood/culture collection, fluid resuscitation and antibiotics
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