ARE YOU CONCERNED THAT YOUR PATIENT COULD HAVE SEPSIS?
Consider the following risk factors
- Re-presentation within 48 hours
- Recent surgery or wound
- Indwelling medical device
- Age > 65 years
- Immuno-compromised
- Fall

Absence of risk factors does not exclude sepsis as a cause of deterioration

Does your patient have any new onset of the following signs and symptoms of infection?
- Fever or rigors
- Line associated infection/redness/swelling/pain
- Dysuria/frequency
- Cough/sputum/breathlessness
- Abdominal pain/distension/peritonism
- Altered cognition

PLUS

Any RED ZONE observation OR additional criteria
- SBP < 90mmHg
- Lactate ≥ 4mmol/L
- Base excess < -5.0

TWO or more YELLOW ZONE observations OR additional criteria including clinician concern
- SBP < 90mmHg
- SpO2 < 95%
- SBP < 100mmHg
- Heart rate ≥ 120 per minute
- Temperature < 35.5°C or > 38.5°C

Obtain a blood gas
- Lactate ≥ 2mmol/L is significant in sepsis

Patient has SEVERE SEPSIS or SEPTIC SHOCK until proven otherwise
- Sepsis is a medical emergency
- Call for a Rapid Response (as per local CERS) unless already made
- Conduct targeted history and clinical examination
- Obtain SENIOR CLINICIAN review to confirm diagnosis and prioritise investigations and management
- Does the senior clinician consider the patient has sepsis?

Look for other common causes of deterioration and treat
- New arrhythmia
- Hypovolaemia/hemorrhage
- Pulmonary embolus/DVT
- Atelectasis
- MI
- Stroke
- Overdose/over sedation

Repeat observations within 30 minutes AND increase the frequency of observations as indicated by the patient’s condition
- Document decision/ diagnosis and management plan in the health care record
- Re-evaluate for sepsis if observations remain abnormal or deteriorate

ADULT SEPSIS PATHWAY

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 < 90mmHg
    - 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

- 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

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.

Specific management plans are to be documented in the health care record
- Continue to monitor as per patient’s condition – observations, medical review, antibiotics
**SEPSIS PATHWAY**

**Sepsis recognition**

- **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
  - **For patients with a central venous access device (CVAD), take one set from the CVAD plus one set peripherally**
- **Collect Lactate**
  - Lactate ≥ 2mmol/L after adequate fluid resuscitation is significant
  - Lactate: __ __.__ mmol/L
- **Collect FBC, EUC, CRP/PCT, LFTs, coags and glucose**
  - BGL > 7.7mmol/L in the absence of diabetes may be significant
  - BGL: __ __.__ mmol/L
- **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)**
- **Document investigations and cultures collected:**
- **Monitor and Reassess**
  - Respiratory rate in the Red or Yellow Zone
  - SBP < 100mmHg
  - Decreased or no improvement in level of consciousness
  - Urine output < 0.5mL/kg/hour
  - Serum lactate level of ≥ 2mmol/L (or increasing) or no improvement after adequate fluid resuscitation may be indicative of septic shock
- **Consider other causes of deterioration**

**Blood cultures** (at least two sets) and other relevant cultures should be collected PRIOR to antibiotic administration. However, in patients with severe sepsis or septic shock, if difficult to obtain cultures do not delay administration of antibiotic(s). Refer to local Antimicrobial Stewardship policies/procedures regarding antibiotic instructions. Consult Infectious Diseases Physician or Clinical Microbiologist if required.

**Disability - Assess level of consciousness (LOC) using Alert, Voice, Pain, Unresponsive (AVPU)**

**Exposure** - Re-examine the patient for other potential sources of infection to guide further investigations

**Fluid** - Monitor/document strict fluid input/output and consider IDC (if not already inserted)

**Check Blood Glucose Level** - Manage as per local guidelines

**Resuscitate**

- **Severe sepsis or septic shock**
  - Use CEC Adult Antibiotic Guideline for Severe Sepsis & Septic Shock or locally endorsed antibiotic prescribing guideline
  - Use locally endorsed antibiotic prescribing guideline
  - Prescribe and administer antibiotics within 60 MINUTES of sepsis recognition

**Monitor and Reassess**

- **Emergency Department patient**
  - Give initial 20mL/kg bolus STAT, if no response repeat 20mL/kg STAT
- **Inpatient**
  - Initial 250-500mL bolus STAT, if no response repeat 250-500mL STAT
  - If no response in SBP after 1000mL call a Rapid Response

**Consider commencement of vasopressors**

**If no improvement Intensive Care may be required**

**REFER**

- Update the Attending Medical Officer on the patient’s condition using ISBAR
- Discuss the management plan with the patient and their family/carers
- Sepsis management plan documented by a medical officer in the health care record as per page 4 (over)

Name: ____________________________ Designation: ____________________________ Signature: ____________________________