Adult sepsis pathway for use in all emergency departments and inpatient wards
Use relevant febrile neutropenia guidelines if the patient has haematology/oncology diagnosis
Use relevant nephrology guidelines for renal dialysis patients

RECOGNISE

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
- ☐ Immunocompromised
- ☐ Age > 65 years
- ☐ 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
- ☐ Dysuria/frequency
- ☐ Cough/sputum/breathlessness
- ☐ Line associated infection/redness/swelling/pain
- ☐ 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

- ☐ Respirations ≤ 10 or ≥ 25 per minute
- ☐ SpO_2 < 95%
- ☐ SBP < 100mmHg
- ☐ Heart rate ≤ 50 or ≥ 120 per minute
- ☐ Altered LOC or new onset of confusion
- ☐ Temperature < 35.5°C or > 38.5°C

Obtain a blood gas

- ☐ Lactate ≥ 2mmol/L is significant in sepsis

YES YES NO

RESPOND & ESCALATE

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

Patient may have SEPSIS

- Call for a Clinical Review (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? NO

Look for other common causes of deterioration and treat

New arrhythmia
Hypovolaemia/haemorrhage
Pulmonary embolus/DVT
Atelectasis
AMI
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

YES YES

Commence treatment as per sepsis resuscitation guideline (over page)
AND inform the Attending Medical Officer (as per local CERS)

Discuss management plan with the patient and their family
Adapt treatment to the patient's end of life care plan if applicable

ADULT SEPSIS PATHWAY SMR060.400

NSW GOVERNMENT Health

Facility:

SEPSIS KILLS® RECOGNISE · RESUSCITATE · REFER

ADULT SEPSIS PATHWAY

FAMILY NAME	MRN
GIVEN NAME	☐ MALE ☐ FEMALE
D.O.B. ____/____/____	M.O.
ADDRESS	
LOCATION / WARD	

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

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

Initial 24 hours

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

Repeat lactate 4 and 8 hours post recognition

4 hours Date:__ __/__ __/__ __ Time: __ __ : __ __ Result __ __ . __ mmol/L ☐
8 hours Date:__ __/__ __/__ __ Time: __ __ : __ __ Result __ __ . __ mmol/L ☐

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

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 ☐

24 - 48 hours

Reassess

- Actively seek microbiology/investigation results and review ☐
- Confirm diagnosis, document source of sepsis in the health care record ☐
- 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 ☐

Continue to monitor as per patient's condition – observations, medical review, antibiotics

NSW GOVERNMENT Health

Facility:

SEPSIS KILLS
RECOGNISE · RESUSCITATE · REFER

ADULT SEPSIS PATHWAY

FAMILY NAME	MRN
GIVEN NAME	☐ MALE ☐ FEMALE
D.O.B. _____ / _____ / _____	M.O.
ADDRESS	
LOCATION / WARD	

COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Sepsis recognition

Date:__ __/ __ __/ __ __ Time: __ __ : __ __

☐ **Emergency Department Patient**

Triage category 1 2 3 4 5

☐ **Inpatient** Ward: _____

☐ Clinical Review ☐ Rapid Response

RESUSCITATE

A — **Airway** - Assess and maintain patent airway

B — **Breathing** - Assess and administer oxygen if required; aim SpO_2 ≥ 95% (or 88-92% for COPD)

C — **Circulation - Vascular access, blood/culture collection, fluid resuscitation and antibiotics**

Consider intraosseous access after two failed attempts at cannulation

Collect Blood Cultures Take two (2) sets from two (2) separate sites	☐ Yes ☐ Not obtained
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	☐ Yes ☐ Not obtained Lactate:__ __.__mmol/L
Collect FBC, EUC, CRP/PCT, LFTs, coags and glucose BGL > 7.7mmol/L in the absence of diabetes may be significant	☐ Yes ☐ Not obtained 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) Eg. Urine, cerebrospinal fluid, wound swab, joint or organ space aspirate	Document investigations and cultures collected: _____ _____ _____ _____
Fluid Resuscitation (intravenous or intraosseous) • Use crystalloid • Aim Systolic Blood Pressure > 100mmHg • Monitor for signs of pulmonary oedema and review at risk patients more frequently	☐ **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	

RESUSCITATE

C

Antibiotics First/new antibiotic administered Date:__ __/ __ __/ __ __ Time: __ __ : __ __

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.

☐ Severe sepsis or septic shock	Use CEC Adult Antibiotic Guideline for Severe Sepsis & Septic Shock or locally endorsed antibiotic prescribing guideline	Prescribe and administer antibiotics **within 60 MINUTES** of sepsis recognition
☐ Sepsis	Use locally endorsed antibiotic prescribing guideline	Prescribe and administer antibiotics promptly *in a timeframe directed by senior clinician (must be within 2 hours)*

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

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

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

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

Monitor and Reassess

Continue monitoring, assess for signs of deterioration and escalate as per local CERS

- 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

REFER

If no improvement Intensive Care may be required

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: _____