PATIENT LABEL OR BLOCK PRINT

SIR CHARLES GAIRDNER HOSPITAL

ADULT ED SEPSIS PATHWAY

URN:

SURNAME:

FORENAME:

GENDER:

DOB:

3 point Patient ID check completed and affixed patient label correct _____ (name & signature)

Initiate screening for patients >15 years with features of infection, possible infection or who look unwell.
IMPORTANT NOTE: No unique set of diagnostic features exist for infection / sepsis. The following are prompts to assist clinical decision-making and risk assessment. Pathways / guidelines should not replace clinical judgement.

Screening Initiated: | DOCTOR / NURSE (GRADE) | SIGNATURE | DD/MM/YY | 00:00 24HR |

SCREENING

INFECTION RISK

IMPORTANT NOTE: An absence of risk factors does not exclude sepsis as cause of illness or risk of deterioration

HIGH RISK
- ☐ **Age >65**
- ☐ **Rigors**
- ☐ **Immunocompromised e.g. Chronic disease / medications / etc**
- ☐ **Malignancy / malignancy treatments (e.g chemotherapy / etc)**
- ☐ **Recent surgery / invasive procedure**
- ☐ **Indwelling medical device**
- ☐ **IVDU**
- ☐ **Recent foreign travel / Unwell contacts**
- ☐ **Temp <36 or >38 °C**

OTHER RISKS
- ☐ Recent antibiotics
- ☐ Heart rate >100/min
- ☐ Headache / Photophobia
- ☐ Cough / sputum / shortness of breath
- ☐ Abdominal pain and guarding with fevers / vomiting
- ☐ Hot / swollen / painful joint
- ☐ Skin wounds / cellulitis
- ☐ Dysuria / urinary frequency
- ☐ Non-mechanical fall

☐ Infection likely ↓ ☐ Infection unlikely

ORGAN DYSFUNCTION

Features of organ dysfunction? (Each scores 1 point)

Q-SOFA
- ☐ SBP <100mmHg
- ☐ Altered mental status from baseline
- ☐ RR ≥22 breaths/min

Other Criteria
- ☐ SpO_2 <95% on ≥6L O_2
- ☐ Acute kidney injury
- ☐ Urine output <30ml/hr or <0.5ml/kg/hour
- ☐ Acute elevated bilirubin
- ☐ New thrombocytopenia / purpuric rash / plt <100

- Ensure a full systems examination is performed
- Request Bloods (FBP / U+E / LFT / BSL +/- Others)
- Identify likely source
  - Imaging (USS / Xrays / CT / etc)
  - Cultures (Blood culture/MSU/Wound swabs/etc)
- Consider alternative diagnosis

If ≥2 features obtain: blood gas to assess lactate

(Do not wait for lab results - proceed to Hypoperfusion below)

HYPOPERFUSION

Features of hypoperfusion? (Each scores 1 point)
- ☐ SBP <90mmHg or MAP <65 (Despite fluid bolus)
- ☐ Cool / mottled skin
- ☐ New altered mentation
- ☐ Lactate > 2
- ☐ Urine output <30ml/hr or <0.5ml/kg/hour

Consider senior review immediately if any of these are present

☐ **≥2 features of hypoperfusion**

or

☐ **Q-Sofa ≥2 and**

☐ **Persistent hypotension requiring vasopressor to maintain MAP ≥65 + Lactate ≥2**

Patient likely has:

SEPTIC SHOCK

☐ **≥2 features of organ dysfunction (Q-sofa or other criteria)**

or

☐ **Q-Sofa ≥2**

or

☐ **Single feature of hypoperfusion**

Patient likely has:

SEPSIS

☐ **<2 features of organ dysfunction (Q-sofa or other criteria) and no hypoperfusion**

SEPSIS less likely

- Investigate and treat as indicated
- Document decision/diagnosis and management plan in notes
- Re-evaluate for sepsis if condition deteriorates or new features of infection develop

Exit sepsis pathway

ACTION

TIME ZERO when SEPSIS is recognised | DD/MM | 00:00 24HR | INITIALS

Name of Senior medical or nursing staff contacted	DD/MM	00:00 24HR	SENIOR NURSING STAFF	SENIOR MEDICAL STAFF

Review any Advanced Health Directives and discuss Goals of Cares as appropriate.

Address life threatening issues immediately. Perform an A B C D E assessment without delay.

PLEASE TURN OVER AND CONTINUE ONTO SEPSIS MANAGEMENT (TO BE COMPLETED BY TREATING DOCTOR)

ADULT ED SEPSIS PATHWAY

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SEPSIS MANAGEMENT

1. Take blood cultures - **minimum of 2 sets**
- Collect from separate sites prior to antibiotics using aseptic technique
- Collect other relevant cultures - urine / sputum / wound / abscess / joint space / CSF* / Invasive line cultures (e.g central line, etc) **(This counts as 1 set of 'blood culture')** *(Do not perform lumbar puncture in shock or coagulopathy)

Blood cultures / other cultures taken: DD/MM | 00:00 24HR | INITIALS
DD/MM | 00:00 24HR | INITIALS

2. Check lactate (If not already)
- Collect venous or artertial blood gas. Repeat in 1 hour if initial lactate >2mmol/L
- Collect FBC / U+E / LFTs / BSL +/- Coagulation profile (If not already)
- Identify likely source
  - Imaging (USS / Xrays / CT / etc)
  - Cultures (Blood culture / MSU / Wound swabs / etc)

Initial Lactate taken: DD/MM | 00:00 24HR | INITIALS
Initial lactate result: mmol/L **Repeat lactate result:** mmol/L

3. Commence IV Antibiotics (Within 1 hour)
- Check Allergies
- Check Antibiotic guidelines guided by likely source of infection
- Consider Risk of Resistant organisms (e.g. recent travel / hospitalisation / previous microbiology results)
- Consult microbiology / Infectious Disease Team as required

DO NOT DELAY ANTIBIOTICS IF CULTURES ARE TOO DIFFICULT TO OBTAIN

1st Antibiotic time: DD/MM | 00:00 24HR | INITIALS
Name of Antibiotics commenced: 1st ANTIBIOTIC
2nd ANTIBIOTIC
3rd ANTIBIOTIC

4. Suspected source of Sepsis
- Consider need for source control (e.g incision and drainage / infected device removal, etc)
- Contact appropriate team for source control (e.g. General surgery, etc)
- Document plan in notes

SUSPECTED SOURCE

Specialty contacted: SPECIALTY
DD/MM | 00:00 24HR | INITIALS

5. IV fluid challenges
- 10-15ml/kg IVF challenges of isotonic crystalloid
- Repeated up to 30ml/kg. To be titrated against clinical appropriate targets (Unless contraindications e.g. APO, etc)
- Reassess haemodynamic response and consider Ultrasound for fluid status assessment
- If unresponsive to fluids probable SEPTIC SHOCK

1st Fluid Bolus: DD/MM | 00:00 24HR | INITIALS
Total IVF given ml

Persistent Hypotension or features of hypoperfusion despite IVF?

Additional management for suspected SEPTIC SHOCK

6. Haemodynamic resuscitation
- If inadequate perfusion persists despite appropriate IV fluid resuscitation commence **VASOPRESSORS / INOTROPES** and contact **ICU / HDU** for review
  - **1st Line** - **Noradrenaline** (Commence peripheral protocol when central access not available)
  - 2nd Line - as per Senior Medical / ICU / HDU input
- Aim **MAP 65-70mmHg** or as clinically indicated

Time vasopressor / inotrope initiated: DD/MM | 00:00 24HR | INITIALS
Vasopressor / inotrope used: VASOPRESSOR / INOTROPE
Time ICU / HDU contacted DD/MM | 00:00 24HR | INITIALS
Total IVF prior to vasopressor / inotrope: ml

7. Reassess response to initial measures
- Assess mental status, skin perfusion and capillary refill
- Maintain **airway** and **oxygenation**
- Assess need for **respiratory support** (NIV / IPPV)
- If requiring **vasopressors** to maintain adequate blood pressure:
  - Insert **Urinary Catheter** - monitor hourly urine output
  - Insert **arterial line**
  - Consider need for **central venous access**

Reassessment times:
1st: DD/MM | 00:00 24HR | INITIALS
2nd: DD/MM | 00:00 24HR | INITIALS

No to all

8. Does the patient:
- Require vasopressor to maintain MAP ≥ 65mmHg?
- Have impaired consciousness despite resuscitation?
- Have a respiratory rate ≥25?
- Require >6L/min O2 to maintain SpO_2 ≥94%?
- Require respiratory support (NIV / IPPV)?
- Have persistently elevated lactate?
- Have other signs of critical illness or instability?

Yes to any
(Consider escalation of treatment and expediting transfer to critical care)

Treatment variation - describe modifications of bundle e.g. non-therapeutic guideline antibiotic choice, withholding or delay in treatment, patient co-morbidities precluding volume loading, ICU admission, etc

Medical officer completing form:
DOCTOR (GRADE) | SIGNATURE

Date and time complete DD/MM | 00:00 24HR | INITIALS

Handover Sepsis Risk when patient transferred out of ED
(An emergency call can be initiated at any time if you are clinically concerned)

Date and time complete DD/MM | 00:00 24HR | INITIALS

ED Staff name | Ward Staff name

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