

Sepsis Form - In-Patient Adult

Start Sepsis form if there is a suspicion of infection and NEWS ≥ 4 (or ≥ 5 on oxygen) or Exercising clinical judgement

There are separate sepsis criteria for maternity patients and children



Section 1 Sepsis screen for Nursing Staff

Suspicion of infection

AND

Patient presentation 1 2 or 3
(see Section 3 and Adult In-Patient Sepsis Management Algorithm).

Action:
NEWS ≥ 4 or Exercising clinical judgement – escalate to medical review within 30 mins.
1) Inform if screen positive
2) Start Sepsis Form and put with clinical notes

Addressograph here

Date: Time of NEWS: NEWS:

Signature: NMBI PIN:

Section 2 Sepsis diagnosis for Medical Staff

Document site of suspected infection after medical review

- | | | |
|---|--|---|
| <input type="checkbox"/> Respiratory Tract | <input type="checkbox"/> Intra-abdominal | <input type="checkbox"/> Urinary Tract |
| <input type="checkbox"/> Skin | <input type="checkbox"/> Catheter/Device Related | <input type="checkbox"/> Intra-articular/Bone |
| <input type="checkbox"/> Central Nervous System | <input type="checkbox"/> Unknown | |
| <input type="checkbox"/> Other suspected site: <input type="text"/> | | |

No clinical suspicion of INFECTION: terminate form and sign at bottom.

Section 3

Who needs to get the "Sepsis 6" – infection plus any one of the following:

- Patients at risk of neutropenia, due to bone marrow failure, autoimmune disorder or treatment including but not limited to, chemotherapy and radiotherapy, who present unwell.
- Clinically apparent new onset organ failure, any one of the following:

<input type="checkbox"/> Acutely altered mental state	<input type="checkbox"/> RR > 30	<input type="checkbox"/> O ₂ sat $< 90\%$	<input type="checkbox"/> HR > 130
<input type="checkbox"/> Oligo or anuria	<input type="checkbox"/> Pallor/mottling with prolonged capillary refill	<input type="checkbox"/> SBP < 100	
<input type="checkbox"/> Non-blanching rash	<input type="checkbox"/> Other organ dysfunction <input type="text"/>		
- Patients with a systemic inflammatory response (≥ 2 SIRS) plus ≥ 1 co-morbidity.

SIRS criteria: Note – physiological changes should be sustained not transient.

- | | | |
|---|---|---|
| <input type="checkbox"/> Respiratory rate ≥ 20 breaths/min | <input type="checkbox"/> WCC < 4 or $> 12 \times 10^9/L$ | <input type="checkbox"/> Bedside glucose > 7.7 mmol/L
<i>(in the absence of diabetes mellitus)</i> |
| <input type="checkbox"/> Heart rate > 90 beats/min | <input type="checkbox"/> Temperature < 36 or $> 38.3^\circ C$ | |

Co-morbidities associated with increased mortality in sepsis.

- | | | | | | |
|--|--|-----------------------------------|--|---------------------------------|---|
| <input type="checkbox"/> COPD | <input type="checkbox"/> DM | <input type="checkbox"/> HIV/AIDS | <input type="checkbox"/> Chronic liver disease | <input type="checkbox"/> Cancer | <input type="checkbox"/> Chronic kidney disease |
| <input type="checkbox"/> Immunosuppressant medications | <input type="checkbox"/> Age ≥ 75 years | <input type="checkbox"/> Frailty | <input type="checkbox"/> Recent surgery/major trauma | | |

Section 4

If YES after medical review to Section 2 **PLUS** 1,2 or 3 in Section 3.

Start SEPSIS 6 (Section 6)

Time Zero:

Section 5

If NO to infection with a high-risk presentation (1, 2 or 3), tick NO and sign off. If infection and low-risk presentation, tick infection and continue usual treatment pathway. Review diagnosis if patient deteriorates.

Infection

Antimicrobial given:

Has a decision been made to apply a relevant treatment limitation plan.

Do not proceed with Sepsis pathway. Document limitations in clinical notes.

Doctor's Name: Doctor's Signature:

MCRN: Date: Time:

Sepsis Form - In-Patient Adult

ALWAYS USE CLINICAL JUDGEMENT

Addressograph here

Treatment, Risk Stratification and Escalation

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Section 6 **TAKE 3** **SEPSIS 6 - aim to complete *within 1 hour*** **GIVE 3**

BLOOD CULTURES: Take blood cultures prior to giving antimicrobials unless this leads to delay > 45minutes. Other cultures as indicated by history and examination.

BLOOD TESTS: Point of care lactate (venous or arterial). FBC, U&E, LFTs +/- Coag. Other tests and investigations as indicated.

URINE OUTPUT: Assess urinary output as part of volume/perfusion status assessment. For patients with sepsis or septic shock start hourly urinary output measurement.

OXYGEN: %. Range 21% (R/A) to 100%. Titrate to saturations of 94-98%, 88-92% in chronic lung disease.

FLUIDS: Volume in 1st hour **mls.** Patients who present with hypotension should receive 30mls/kg of a balanced salt solution within 1 hour of presentation. Start pressors in patients who are fluid unresponsive. Patients with hypoperfusion should receive fluid to restore perfusion using a bolus and review technique. 500ml boluses are recommended but may be amended based on clinical context. See fluid resuscitation algorithm.

ANTIMICROBIALS: Give antimicrobials as per local antimicrobial guideline based on the site of infection, community or healthcare acquired and the patients allergy status. Assess requirement for source control.

Type: Dose: Time given:

Section 7
Look for signs of new organ dysfunction after the Sepsis 6 bundle has been given or from blood test results – any one is sufficient:

Lactate ≥ 4 after 30mls/kg Intravenous therapy

Cardiovascular - Systolic BP < 90 or Mean Arterial Pressure (MAP) < 65 or Systolic BP more than 40 below patient's normal

Respiratory - New need for oxygen to achieve saturation > 90% (note: this is a definition not the target)

Renal - Creatinine > 170 micromol/L or Urine output < 500mls/24 hrs – despite adequate fluid resuscitation

Liver - Bilirubin > 32 micromol/L

Haematological - Platelets < $100 \times 10^9/L$

Central Nervous System - Acutely altered mental status

One or more new organ dysfunction due to infection:

This is SEPSIS: Seek senior input as per local guideline.

No new organ dysfunction due to infection:

This is NOT SEPSIS: If infection is diagnosed proceed with usual treatment pathway for that infection.

Section 8
Look for signs of septic shock
(following adequate initial fluid resuscitation, typically 2 litres in the first hour unless fluid intolerant)

Requiring inotropes/pressors to maintain MAP ≥ 65

This is SEPTIC SHOCK

Inform Consultant

Contact CRITICAL CARE

Practical Guidance

Re-assess the patient's clinical response frequently. Re-assess and repeat lactate, if the first is abnormal, by 3hrs.

Achieve source control as soon as practicable.

If the patient is deteriorating, despite appropriate treatment, seek senior assistance, re-assess antimicrobial therapy and the need for source control.

Pathway Modification

All Pathway modifications need to be agreed by the Hospital's Sepsis Committee and be in line with the National Clinical Guideline.

Section 9 **Clinical Handover. Use ISBAR₃ Communication Tool**

This section only applies when handover occurs before the form is completed and the form is then signed off by the receiving doctor.

Doctor's Name (PRINT): Doctor's Signature: Doctor's Initials MCRN

Patient care handed over to: Time: Sections completed:

Form completed by

Doctor's Name: Doctor's Signature:

MCRN: Date: Time:

File this document in the patient notes – other aspects of patient management should be documented on the continuation sheets.