

Summary of review February 2024:

The trust's Sepsis Working Party and Deteriorating Patient Board are aware that NICE have updated the National Sepsis Guidance (NG51) in January 2024. The trust will continue to use this existing Sepsis policy for adults whilst new guidance (and the electronic systems to support its implementation) are developed.

1. Introduction

This document provides guidance to staff on the recognition and treatment of ADULT patients (aged 16 and over and in an adult clinical environment: ED or ward) with sepsis and septic shock (**including** neutropenic sepsis).

2. Scope

2.1 This guideline applies to all medical and registered nursing staff employed by UHL, including bank, agency and locum staff.

3. Recommendations, Standards and Procedural Statements

- 3.1 It is the responsibility of the attending clinical team (nursing and medical) to initiate the Adult Sepsis Screening and Immediate Action Tool and document all care (appendix 1).
- 3.2 The UHL Adult Sepsis Screening and Immediate Action Tool is to be used on all patients who have either: A new early warning score (EWS) of 3 or more; look unwell or if there is concern regarding an acute change in mental state.
- 3.3 The UHL Adult Sepsis Screening and Immediate Action Tool provides details of the patient care, monitoring and interventions that are required to recognise and treat sepsis / red flag sepsis / septic shock and must be initiated as soon as a patient has clinical evidence of sepsis or the healthcare professional caring for the patient has concerns about their risk of developing sepsis.
- 3.4 The UHL Adult Sepsis Screening and Immediate Action Tool provides detailed interventions and timescales that must be adhered to in order to improve mortality from sepsis. Calling the Critical Care Outreach Team is an important action for patients suspected to have red flag sepsis.

4. Education and Training

- 4.1 An introduction to sepsis, electronic learning package for all UHL staff has been completed and is set to be launched by June 2017.
- 4.2 All new doctors receive basic instruction on the sepsis screening tool at trust and local induction.
- 4.3 All FY1 and FY2 doctors receive simulation-based training using the sepsis screening tool.
- 4.4 'Essential to role' training in care of the deteriorating patient (including sepsis) occurs annually for all nursing and AHP staff.
- 4.5 The communications team will support the launch of the new sepsis screening and

action tool with UHL-wide promotions.

4.6 The UHL sepsis team provide 1 to 1 feedback to staff on their management of patients with sepsis. Feedback is also delivered by the ICU team when a patient with sepsis is admitted to ICU.

5. Monitoring and Audit Criteria

Key Performance Indicator	Method of Assessment	Reported to	Frequency	Lead
<p>5.1 Proportion of patients with EWS 3 or more screened for sepsis >90%.</p> <p>5.2 Proportion of patients with red flag sepsis receiving IV antibiotic within 1hr >90%.</p> <p>5.3 Proportion of patients with red flag sepsis receiving entire sepsis six within 1 hr >50%</p>	<p>Established continuous monitoring of deteriorating patients in ED and ward areas by nurse leads, submitted to clinical audit team. Weekly data reviewed at EWS & Sepsis meeting 2-weekly (chaired by chief nurse, medical director).</p> <p>Also recorded as part of UHL Quality Commitment and National CQUIN.</p>	<p>Sepsis Working Party, Deteriorating Patient Board and EQB.</p>	<p>Weekly data submission, monthly review.</p>	<p>John Parker (UHL Sepsis lead)</p>

6. Legal Liability Guideline Statement

Guidelines or Procedures issued and approved by the Trust are considered to represent best practice. Staff may only exceptionally depart from any relevant Trust guidelines or Procedures and always only providing that such departure is confined to the specific needs of individual circumstances. In healthcare delivery such departure shall only be undertaken where, in the judgement of the responsible healthcare professional' it is fully appropriate and justifiable - such decision to be fully recorded in the patient's notes.

7. Supporting Documents and Key References

Immediate Recognition and Management of Sepsis, NICE guideline 51.

<https://www.nice.org.uk/guidance/ng51?unlid=280104107201611917351>

International guidance: Surviving Sepsis Campaign www.survivingsepsis.org

8. Key Words

Sepsis, septicaemia, septic, septic shock, red flag sepsis

Adult Sepsis Screening and Immediate Action Tool

Complete and file in medical record



Name: _____
 Date of Birth: _____
 Hospital Number: _____
 Affix Hospital Label if available



Caring at its best

1. At least one of the following present?

Early Warning Score 3 or more OR
 Patient looks unwell OR
 Concern regarding acute change in mental state

2. Is the clinical picture suggestive of an infection?

If there is a high probability of a non-infective explanation for clinical features (eg AMI, PE, liver failure, pancreatitis or stroke) then manage as low risk of sepsis

Chest
 Urinary Tract
 Cellulitis, necrotizing fasciitis
 Abdominal
 Bone or joint
 Meningitis
 Device related (eg catheter, line)
 Other, state: _____
 Yes, but source unclear

Perform rapid ABCDE assessment

3. At least one red flag present?

- Assessment MUST allow for patients usual chronic baseline
- Obstetric patients: use corresponding red MEOWS triggers

A Respiratory rate 25/min or more
B New need for >40% O₂ to keep saturations over 91% (saturations > 87% in COPD)
 Systolic BP < 91mmHg or fall of 40 from normal
C HR >130/min
 No urine output for 16hrs or UO<10ml/hr
D New onset delirium
 Responds only to voice or pain / unresponsive
E Non-blanching rash/ mottled / ashen / cyanotic
 Neutropenia or chemotherapy within last 6 weeks

Low Risk of SEPSIS

Treat to local protocols, review if patient deteriorates. Consider other diagnoses.

Moderate Risk of SEPSIS

Sepsis Likely / Present

- Inform responsible clinician
- Consider Sepsis Six interventions (see overleaf)
- Begin at least hourly observations
- Act on early warning score triggers
- Send appropriate microbiological samples (including blood culture)
- Send blood samples for FBC, CRP, U&E, LFT coagulation, Blood gas (venous or arterial) Glucose, ensure results are reviewed
- Source specific antimicrobial prescribing based on local policy (e.g. 4hr CAP bundle)

If EWS 4 or more AND Lactate ≥ 2 or AKI ≥ 2
 If YES Then treat as RED FLAG SEPSIS
 Time zero = Time of abnormal blood results availability

HIGH Risk of SEPSIS

Red Flag Sepsis

This is a time critical condition, immediate action is required!

Start Sepsis 6 bundle NOW (see overleaf)

- Inform resident senior doctor
- Inform outreach team (ward patients): BLEEP LRI 5293 / GH 2808 / LGH 3457
- Inform Sepsis Team (ED): CALL # 6826

Time Zero: _____ (ED, time of admission, Ward, time of first red flag)
 Target Time: _____ (Time when sepsis six to be complete. Time zero plus 1 hr)

Delivery of Sepsis Six by junior staff must not be delayed. Resident senior doctor review can stop the process on the following grounds:

- Patient is End of Life
- Patient low suspicion of infection
- Red Flag due to chronic disease

STOP

SURNAME & GRADE: _____ SIGNATURE: _____ DATE & TIME: _____

PRINT NAME: _____ Title: _____ Date: _____ Time: _____

Sepsis Six Bundle

Complete in **one hour**.
Actions should be carried out simultaneously.

Use sepsis box / pack to support delivery of sepsis six



THE UK
SEPSIS
TRUST

Supporting Resources



Sepsis
Frequently Asked Questions



How to:
Take a blood culture
Draw up meropenem
Use a sepsis box

1	Administer supplementary oxygen (if required) <ul style="list-style-type: none"> Aim to keep saturations > 94% COPD: Adjust target saturations to 88-92% 	Time Started	Name	Reason not administered
2	Blood Culture & Source Management <ul style="list-style-type: none"> Take blood cultures (before IV antibiotic) Think source confirmation and control! Consider also sputum, urine, CSF, line culture/removal involve appropriate surgical team / radiologist as indicated For Community Acquired Pneumonia start 4 hr CAP Bundle 	Time Taken	Name	Reason not taken
3	Give IV antibiotics PRESCRIBE STAT (TIMED). GIVE YOURSELF OR MAKE SURE SOMEONE DOES <ul style="list-style-type: none"> Red Flag Sepsis: Meropenem IV 1g stat (+/- second dose at 8hrs) and review at first inpatient consultant assessment (microbiology advice may be needed at this stage) Sepsis: According to local antimicrobial policy 	Time Given	Name	Reason for departure from prescribing guidance
4	Give a fluid challenge Check and monitor response <ul style="list-style-type: none"> If SBP <90mmHg or Lactate >2 Give 500mls Hartmann's or 0.9% NaCl over 15 mins, repeat once if necessary Senior resident doctor review to exclude other causes of shock before giving up to 30 ml/kg If SBP >90mmHg and Lactate <2 consider IV fluids 	Time Given	Name	Reason not given
5	Measure lactate <ul style="list-style-type: none"> Obtain blood gas - venous or arterial If lactate >4mmol/L refer to critical care Ensure samples are sent for FBC, CRP, U+E, LFT, coag screen Repeat lactate after fluid challenge 	Time Taken	Name	Reason not done
6	Measure urine output <ul style="list-style-type: none"> Ensure hourly fluid balance chart commenced Catheterise if AKI / SBP <90 / Lactate >2 Monitor Vital Signs at 15-30mins intervals until EWS below 3 	Time Started	Name	Reason not started
Escalation	Critical Care Medical Team refer if patient: <ul style="list-style-type: none"> SBP <90 and lactate >2 after fluid resuscitation Has Red Flag Sepsis and lactate >4 Has Red Flag Sepsis and requires >50% O₂ Has Red Flag Sepsis and significant respiratory/ cardiovascular/ CNS or renal dysfunction. 	Time Referred	Name of Referrer	Reason <u>NOT</u> Referred:
			Name of ICU Doctor	

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