



**University Hospitals of  
Morecambe Bay**  
NHS Foundation Trust

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<b>Document Title:</b>  <b>Management of Neutropenic Sepsis in Adult Patients</b>	<b>Version Number:</b> 6
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<b>Scope:</b> Medical and Nursing staff, and allied health professionals at UHMBT	<b>Classification:</b> Organisational
<b>Author / Title:</b> Rachel Simpson, Nurse Practitioner Acute Oncology	<b>Responsibility:</b> Acute Oncology Team
<b>Replaces:</b> Version 5, Management of Neutropenic Sepsis in Adult Patients, Corp/Prot/004	<b>Head of Department:</b> Dr Moon, Consultant Oncologist
Does this document refer to and account for the prescribing, supply, storage or administration of medication (especially via electronic media)? <b>Yes</b> If yes, Pharmacy Dept. must be consulted and provide approval date below.	
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<b>Review dates may alter if any significant changes are made</b>	<b>Review Date:</b> 01/03/2028
<ul style="list-style-type: none"> <li>Does this document meet the requirements under the Equality Act 2010 in relation to age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation? <b>Yes</b></li> <li>Does this document meet our additional commitment as a Trust to extend our public sector duty to carers, veterans, people from a low socioeconomic background, and people with diverse gender identities? <b>Yes</b></li> </ul>	
<b>Document for Public Display: No</b>	

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Version No: 6	Next Review Date: 01/03/2028	Title: Management of Neutropenic Sepsis in Adults
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## 1. SUMMARY

**Neutropenic sepsis is an acute medical emergency.  
Suspected neutropenic sepsis must be treated with antibiotics within 1 hour of arrival in the hospital.**

**Failure to initiate antibiotics early may result in overwhelming sepsis and death.**

Advice may be obtained from the acute oncology team on bleeps 1257 (FGH) and 3301 (RLI) (Monday - Friday 9-5pm) or from the consultant or registrar on call for oncology/haematology (via LTH hospital switchboard – 01772 716565).

A report by the National Confidential Enquiry into Patient Outcome and Death ('Systemic anti-cancer therapy: For better for worse?' (2008)) and a follow-up report by the National Chemotherapy Advisory Group ('Chemotherapy services in England: ensuring quality and safety' (2009)) highlighted problems in the management of neutropenic sepsis in adults receiving chemotherapy. In response to these concerns the National Institute of Health and Clinical Excellence (NICE) issued clinical guidance: Prevention and treatment in people with cancer (2012):

This protocol is based on this guidance and proposed NICE pathways and is consistent with guidance on febrile neutropenia from both the European Society of Medical Oncology and The American Society of Clinical Oncology.

Patients with cancer have an increased risk of infection. The degree of risk is dependent on the extent of the disease, as well as the chemotherapy or radiotherapy given to treat the cancer. Reversible bone marrow suppression is a consequence of many chemotherapy regimens. Neutropenic sepsis is a potentially fatal complication of anticancer treatment (particularly chemotherapy). Mortality rates ranging between 2% and 21% have been reported in adults. Aggressive use of inpatient intravenous antibiotic therapy has reduced morbidity and mortality rates and intensive care management is now needed in fewer than 5% of cases in England.

The risk of infection increases with reducing neutrophil count. Patients with neutrophil count  $<0.5$  are at particularly high risk of developing sepsis. Other patients at increased risk include age  $>60$  years, haematology patients, patients with indwelling central catheters and those with poor general health and/or co-morbidities.

All patients presenting with suspected neutropenic sepsis should be assessed by a healthcare professional with competence in managing complications of anticancer treatment within 24 hours of presentation to secondary care.

Patients having anticancer treatment and their carers are provided with written and oral information, both before starting and throughout their anticancer treatment, on:

- neutropenic sepsis
- how and when to contact 24-hour specialist oncology advice
- how and when to seek emergency care

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## 2. PURPOSE

The purpose of this protocol is to ensure patients with suspected neutropenic sepsis are treated appropriately and efficiently in-line with NICE guidelines.

## 3. SCOPE

All UHMBT clinical staff involved with the assessment, diagnostics and treatment of patients with neutropenic sepsis

### 3.1 Roles and Responsibilities

Role	Responsibilities
Medical clinicians and advanced practitioners	Recognising potential neutropenic sepsis patients Initiate appropriate investigation/diagnosis, including SEPSIS 6 Prescribe initial antibiotics ensuring this is done within one hour of admission
Nursing staff	Ensuring antibiotics are administered promptly after been prescribed, within one hour of admission Initiate the SEPSIS 6 pathway

## 4. PROTOCOL

### 4.1 Definition of Neutropenic Sepsis

Diagnose neutropenic sepsis in patients having anticancer treatment whose neutrophil count is  $0.5 \times 10^9$  per litre or lower and who have either:

- a temperature higher than 38°C or >37.5°C for > 1 hr  
OR
- other signs or symptoms consistent with clinically significant sepsis.

NOTE: The absence of a fever does NOT rule out neutropenic sepsis especially if the patient is unwell and has recently received chemotherapy. Neutropenic sepsis could present with non-specific symptoms such as confusion in the elderly or rigors without pyrexia. Patients may have taken medication which could mask the fever, i.e. paracetamol or steroids.

Symptoms and signs of red flag sepsis may include:

- Responds only to voice or pain/unresponsive
- Acute confusional state
- Systolic B.P <90 mmHg (or drop of >40 from normal)

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- Heart rate >130 per minute
- Respiratory rate >25 per minute
- Needs oxygen to keep SpO2 >92%
- Non-blanching rash, mottled/ashen/cyanotic
- Not passed urine in last 18h / UO <0.5ml/kg/hr
- Lactate >2 mmol/l
- Recent chemotherapy

The presentation of sepsis is variable and all of these signs do NOT need to be present to diagnosis sepsis. You might also expect specific signs to be absent in certain patient groups (patients on beta-blockers, for example, may not be tachycardia).

However, neutropenia alone is not an indication for antibiotics in a stable patient with no new symptoms suggestive of sepsis.

## 4.2 Management

### 4.2.1 Suspected Neutropenic Sepsis

Neutropenic sepsis is a medical emergency and can be fatal.

**If neutropenic sepsis is suspected antibiotics should be given within 1 hour of arrival at the hospital.**

**IV antibiotics may be given before a full history is taken or the FBC is known.**

### 4.2.2 History

Determine if the patient is on chemotherapy and find out the date of the last chemotherapy cycle.

If within 28 days then follow sepsis treatment algorithm.  
(see Appendix 1 for inpatients, Appendix 2 for community).

- Check underlying diagnosis, disease status, date/type of recent chemotherapy
- Note symptoms of infection: rigors, cough, sore throat, diarrhoea, dysuria, skin lesions.
- Check for presence of central venous access device.
- List all drugs and allergies

### 4.2.3 Examination

Remember basic ABC + refer to sepsis care pathway dependent upon place of care.  
Appendix 1 for inpatients, Appendix 2 for community (see Section 6 for links).

- Temperature, BP, heart rate, oxygen saturation, respiratory rate, peripheral perfusion, altered mental state.
- Search for source of infection i.e. chest examination, check central line devices, any wounds or skin lesions, mouth and throat.
- Record any sepsis red or amber flags

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#### 4.2.4 Action

##### Outpatients

If symptoms of red or amber flag sepsis present, refer patient immediately to hospital for full assessment.

##### Inpatients

Initiate SEPSIS 6, including:

- URGENT FULL BLOOD COUNT (Suspected neutropenic sepsis DO NOT wait for results before IV antibiotics).
- U&E, LFT, CRP, glucose, lactate.
- CULTURES: Blood cultures-peripheral and central line, MRSA screen, MSSU/CSU if symptomatic, sputum if available, stool culture if diarrhoea, wound swabs.
- CXR only if clinically indicated e.g. if hypoxic or clinical signs in chest.
- Arterial blood gases if hypoxic.
- Do not access central lines unless trained to do so. Insert peripheral cannula if not trained to use central line. Refer to trust policy on use of central lines (see Section 6 for link).
- All patients should be reviewed by a member of the oncology team within 24 hours of presentation (this can be the following day if patient stable) or call oncology registrar at weekend or evenings if urgent review is required (via Preston switchboard).
- The acute oncology teams can be contacted via:
  - **RLI** - Bleep: 3301  
Tel: 01524 583087  
E-mail: [RLI.AcuteOncology@mbht.nhs.uk](mailto:RLI.AcuteOncology@mbht.nhs.uk)
  - **FGH** - Bleep: 1257  
Tel: 01229 491289  
E-mail: [FGH.AcuteOncology@mbht.nhs.uk](mailto:FGH.AcuteOncology@mbht.nhs.uk)

**First line antibiotics should be given within 1 hour of arrival.**

**It is vital that time of admission and time of first dose of antibiotics is accurately recorded.**

**If patient meets septic shock criteria-follow septic shock guidelines as per sepsis policy and consider referral to critical care.**

#### 4.2.5 Antibiotic Guidance (Inpatients)

**NB:** Consult BNF for dose reductions in liver and renal impairment and UHMBT antibiotic guidance available on intranet (See section 6 for link)

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#### First line

**Piperacillin-tazobactam** IV 4.5g 6-hourly

Duration: 7-10 days

#### ADD

**Clarithromycin** IV/PO 500mg 12-hourly if suspected chest infection

In patients with tachycardia, hypotension or systemic signs of sepsis:

#### ADD

**Teicoplanin** IV 6mg/kg 12-hourly for 3 doses, then 6mg/kg OD thereafter.

#### Alternative (rash-type penicillin allergy)

**Meropenem** IV 1g 8-hourly

Duration: 7-10 days

#### Alternative (penicillin anaphylaxis)

**Ciprofloxacin** IV 400mg 8-hourly

#### PLUS

**Teicoplanin** IV 6mg/kg 12-hourly for 3 doses, then 6mg/kg OD thereafter.

Duration: 7-10 days

#### If sepsis due to suspected line infection or MRSA colonised

#### ADD

**Teicoplanin** IV 6mg/kg 12-hourly for 3 doses, then 6mg/kg OD thereafter.

**NB:** if patient has received prophylactic Ciprofloxacin prior to admission substitute: **Ciprofloxacin for Gentamicin (dose will depend on renal function).**

**If patient has diarrhoea** take sample to exclude *Clostridium difficile* infection. If positive treat according to *C Diff* guidelines.

If a senior member of the team has any doubts regarding antibiotic choice, this should be discussed with the microbiologist on call.

#### 4.2.6 Unresolving Pyrexia (Inpatients)

Consider taking further cultures if pyrexia continues or condition deteriorates.

If fever persists > 48 hours despite IV antibiotics, the patient is not clinically improving or deteriorates they should be reviewed by a senior member of the medical team who may wish to seek advice from the Consultant Microbiologist.

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If after 5 days the patient is still febrile consider the addition of antifungal therapy.

Seek advice from the microbiologist if there is persistent fever or progression of infection.

#### 4.2.7 Ongoing Management (Inpatients)

- Ensure any oral chemotherapy drugs are discontinued.
- Daily FBC until neutrophils > 1.0.
- Monitor temperature, BP, pulse, respiratory rate, oxygen saturations 4 hourly (or more frequently if required). Record early warning score.
- Monitor urine output.
- Patients should be reviewed at least daily and prompt action taken if the clinical picture deteriorates or no improvement. These patients should have a senior medical review.
- Inform the acute oncology team of admission within 24 hours.
- Specific antibiotics should be guided by sensitivities on any positive microbiology cultures.
- Central venous access can be used to administer antibiotics if staff are trained to use the line. If the central line is thought to be the source of infection it may need to be removed especially if signs of septic shock. Please discuss with oncology.
- Consider commencing granulocyte stimulating colony factor (GCSF) only in cases of septic shock, fungal infections or prolonged neutropenia – must be discussed with oncology.
- Antibiotics should be given until the neutrophil count is > 1.0 or until the patient has been afebrile for >24 hours, whichever is longer. Antibiotics may need to be continued for a longer duration if complicated sepsis, high risk patient or positive blood cultures.
- However, the acute oncology team may decide to discharge patient's earlier who are classed as low risk using the validated MASCC risk index score (Appendix 3) – Only a member of the acute oncology team can make this assessment.

#### 4.3 Patient Group Directives (PGD) (Inpatients)

PGD's are in use for some nurses in Oncology Day Unit to give the first dose of antibiotics for patients with suspected neutropenic sepsis.

Only staff members that have had training and been signed off as competent can use the PGD.

**PGD's are available for tazocin and ciprofloxacin for Oncology staff within the acute hospital setting– check the PGD for authorised staff. (PGDs for antibiotics are not use in ED).**

#### 4.4 Implementation

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The Sepsis Pathway is available on the oncology intranet site and the trusts procedural documents library available on-line.

All band 6 and above nurses working in oncology areas, acute assessment wards and emergency departments are trained in the acute oncology service and treatment of neutropenic sepsis. All consultants on the on-call medical rota and in the emergency department are trained in the acute oncology service and treatment of neutropenic sepsis.

There is a continuous audit programme to document the 1-hour door to needle time for patient with suspected neutropenic sepsis. The sepsis pathway document should be fully completed on Lorenzo (found in forms section), and this will form part of the patients EPR (Electronic Patient Record). Please ensure times are corrected when data is being entered to reflect the time the interventions have been performed/administered NOT the time they are being documented on the electronic pathway. Paper copies (if used) can be scanned into the patients EPR.

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5. ATTACHMENTS		
Number	Title	Separate attachment
1	Treatment Algorithm	N
2	Community Sepsis Algorithm	N
3	MASCC risk index score	N
4	Monitoring	N
5	Values and Behaviours Framework	N
6	Equality & Diversity Impact Assessment Tool	N

6. OTHER RELEVANT / ASSOCIATED DOCUMENTS	
The latest version of the documents listed below can all be found via the <a href="#">Trust Procedural Document Library</a> intranet homepage.	
Unique Identifier	Title and web links from the document library
	UHMB Adult Antimicrobial Guide:
Corp/Guid/082	<a href="#">Sepsis Management in Adults</a>
Corp/Proc/028	<a href="#">Vascular Access Device</a>
PGD113	<a href="#">PGD113 - Ciprofloxacin 400mg for Neutropenic Sepsis</a>
PGD115	<a href="#">PGD115 - Tazocin 4,5g for Neutropenic Sepsis (Oncology)</a>
Corp/Guid/049	<a href="#">Management of Clostridioides difficile</a>

7. SUPPORTING REFERENCES / EVIDENCE BASED DOCUMENTS	
Every effort been made to review/consider the latest evidence to support this document?	Yes
If 'Yes', full references are shown below:	
Number	References
1	NICE clinical guideline [CG151] (2012) ' <a href="#">Neutropenic sepsis: prevention and management in people with cancer</a> ,' (Accessed 23.07.25)
2	National Confidential Enquiry into Patient Outcome and Death (2008) ' <a href="#">Systemic anti- cancer therapy: For better for worse?</a> ' (Accessed 23.07.25)
3	National Chemotherapy Advisory Group (2009) ' <a href="#">Chemotherapy Services in England</a> ,' (Accessed 23.07.25)

8. DEFINITIONS / GLOSSARY OF TERMS	
Abbreviation or Term	Definition
NICE	National Institute for Clinical Health and Excellence
MASCC	Multinational Association of Supportive Care in Cancer
LTH	Lancashire Teaching Hospitals
UO	Urine Output
GCSF	Granulocyte-Colony Stimulating Factor
CXR	Chest X-ray
MRSA	Methicillin-resistant Staphylococcus aureus
MSSU/CSU	Mid-stream sample of urine/Catheter sample of urine
EPR	Electronic patient record

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<b>9. CONSULTATION WITH STAFF AND PATIENTS</b>		
Enter the names and job titles of staff and stakeholders that have contributed to the document		
<b>Name/Meeting</b>	<b>Job Title</b>	<b>Date Consulted</b>
Sarah Cotter	Acute Oncology ANP	26/02/2025
Dr Eaton	Medical Oncologist	26/02/2025
Dr Thompson	Clinical Oncologist	26/02/2025
Dr Moon	Medical Oncologist	26/02/2025
Nicola White	Acute Oncology ANP	26/02/2025
Rachel Simpson	Acute Oncology ANP	26/02/2025

<b>10. DISTRIBUTION &amp; COMMUNICATION PLAN</b>	
Dissemination lead:	Acute Oncology ANP
Previous document already being used?	Yes
If yes, in what format and where?	Trust Procedural Document Library
Proposed action to retrieve out-of-date copies of the document:	Contact Policy Coordinator
<b>To be disseminated to:</b>	
Document Library	
Proposed actions to communicate the document contents to staff:	Team meetings, Sepsis Practice Educators, Chemo meeting. Include in the UHMB Weekly News – New documents uploaded to the Document Library

<b>11. TRAINING</b>		
Is training required to be given due to the introduction of this procedural document? <b>Yes</b>		
<b>If 'Yes', training is shown below:</b>		
<b>Action by</b>	<b>Action required</b>	<b>To be completed (date)</b>
Rachel Simpson	Emergency care staff to complete e-learning training	Ongoing

<b>12. AMENDMENT HISTORY</b>				
<b>Version No.</b>	<b>Date of Issue</b>	<b>Page/Selection Changed</b>	<b>Description of Change</b>	<b>Review Date</b>
2	April 2015	4.1.4	IV tazocin changed from TDS to QDS.	April 2016
3	May 2016	Appendix 1	Change of algorithm	01/01/2019
3.1	Nov 2017	Page 3	BSF Page added	01/01/2019
3.2	10/04/2019	Page 1	Review Date extended – form 064/2019	01/07/2019
3.3	14/08/2019	Page 1	Review Date extended – form 140/2019	01/12/2019
4	06/06/2019	All pages	Full review	01/06/2022
5	11/05/2022	Full document review	Head of department changed to Dr Moon	01/04/2025

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6	16/04/2026	Full document review	Added in clarithromycin antibiotic if chest origin suspected and change of dose of IV teicoplanin in line with the Trusts antimicrobial guidelines. Updated version of sepsis screening tool community care	01/03/2028

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# Appendix 1: Inpatient Treatment Algorithm

## Adult Sepsis Screening and Action Tool

To be applied to all patients over 18 years of age with suspected OR confirmed Red Flag Sepsis. Also to be applied to patients with Amber Flag criteria in the presence of AKI.



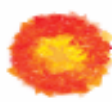
Document & implement an appropriate treatment plan & decide CPR status Inform consultant (Using SBAR) that patient has <b>Red Flag Sepsis</b>	Time Zero <input style="width: 50px; height: 20px;" type="text"/>	Consultant informed <input style="width: 50px; height: 20px;" type="text"/>	Sign <input style="width: 50px; height: 20px;" type="text"/>						
<table style="width: 100%; border: none;"> <tr> <td style="width: 60%; border: none;"><b>ACTION (Complete ALL within 1 hour)</b></td> <td style="width: 40%; border: none;"><b>Reason not done/Variance</b></td> </tr> </table>				<b>ACTION (Complete ALL within 1 hour)</b>	<b>Reason not done/Variance</b>				
<b>ACTION (Complete ALL within 1 hour)</b>	<b>Reason not done/Variance</b>								
<b>1. Administer Oxygen</b> Aim to keep saturations >94% 88-92% if at risk of CO <sub>2</sub> retention e.g.COPD Once stable prescribe O <sub>2</sub> therapy appropriately	<input style="width: 100%; height: 40px;" type="text"/> Time: _____ Sign: _____								
<b>2. Take blood cultures</b> At least one peripheral set. Consider all other appropriate samples. Consider CXR/imaging as appropriate. Perform urinalysis for all adults. Think Source Control – call surgeons/radiologist if required	<input style="width: 100%; height: 40px;" type="text"/> Time: _____ Sign: _____								
<b>3. Administer IV antibiotics</b> According to Trust protocol. (MicroGuide). Check allergies prior to prescribing. <u>Prescribe first dose as stat dose</u> . DO NOT delay antibiotics if unable to obtain Culture samples within 45 minutes.	<input style="width: 100%; height: 40px;" type="text"/> Time: _____ Sign: _____								
<b>4. Give an IV Fluid Challenge (0.9% Sodium Chloride or Compound Sodium Lactate).....</b> If hypotensive/lactate over 2mmol/L give <b>ADULTS: 500mls Stat</b> May be repeated if clinically indicated. Give up to 30ml/KG reassessing regularly	<input style="width: 100%; height: 40px;" type="text"/> Time: _____ Sign: _____								
<b>5. Check serial lactates</b> Corroborate a high VBG with an arterial sample  If lactate >4mmol/L discuss with critical care and re-check lactate after each 10ml/Kg IV fluid challenge	<table style="width: 100%; border: none;"> <tr> <td style="width: 70%; border: none;">Not applicable. Initial Lactate</td> <td style="width: 30%; border: none;">mmol/L</td> </tr> <tr> <td colspan="2" style="border: none;"> <input style="width: 100%; height: 20px;" type="text"/> </td> </tr> <tr> <td colspan="2" style="border: none;">                 Time: _____ Sign: _____             </td> </tr> </table>			Not applicable. Initial Lactate	mmol/L	<input style="width: 100%; height: 20px;" type="text"/>		Time: _____ Sign: _____	
Not applicable. Initial Lactate	mmol/L								
<input style="width: 100%; height: 20px;" type="text"/>									
Time: _____ Sign: _____									
<b>6. Measure urine output</b> Commence fluid balance chart & complete hourly until stable Consider urinary catheter If not appropriate provide receptacles/continence products	<input style="width: 100%; height: 40px;" type="text"/> Time: _____ Sign: _____								
<b>If after delivering the Sepsis Six, patient still has:</b> Systolic BP < 90 mmHg Reduced level of consciousness despite resuscitation Respiratory rate >25 breaths per minute Lactate not reducing Or if patient is clearly critically ill at any time Then contact on call anaesthetist/ICU	Refer to local formulary for antibiotics prescribing.  All antibiotics should be reviewed within 72 hours.								

MBH2099 Rev 3.0/17.6

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## Appendix 2: Community Sepsis Algorithm

SEPSIS SCREENING TOOL COMMUNITY CARE		Age 16+
<p><b>01 START THIS CHART IF THE PATIENT LOOKS UNWELL OR HAS ABNORMAL PHYSIOLOGY</b></p> <p><b>RISK FACTORS FOR SEPSIS INCLUDE:</b></p> <p><input type="checkbox"/> Age &gt; 75</p> <p><input type="checkbox"/> Impaired immunity (e.g. diabetes, steroids, chemotherapy)</p> <p><b>CONSIDER ANY ADVANCE DIRECTIVE / CARE PLAN</b></p> <p><input type="checkbox"/> Indwelling lines / IVDU / broken skin</p> <p><input type="checkbox"/> Recent trauma / surgery / invasive procedure</p>		
<p><b>02 COULD THIS BE DUE TO AN INFECTION?</b></p> <p><b>LIKELY SOURCE:</b></p> <p><input type="checkbox"/> Respiratory    <input type="checkbox"/> Urine    <input type="checkbox"/> Skin / joint / wound    <input type="checkbox"/> Indwelling device</p> <p><input type="checkbox"/> Brain    <input type="checkbox"/> Surgical    <input type="checkbox"/> Other</p>		<p><b>SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS</b></p>
<p><b>03 ANY RED FLAGS PRESENT?</b></p> <p><input type="checkbox"/> Objective evidence of new or altered mental state</p> <p><input type="checkbox"/> Respiratory rate <math>\geq 25</math> per minute</p> <p><input type="checkbox"/> New need for O<sub>2</sub> (40% or more) to keep SpO<sub>2</sub> &gt; 92% (&gt;88% COPD)</p> <p><input type="checkbox"/> Systolic BP <math>\leq 90</math> mm Hg [or drop of &gt;40 from normal]</p> <p><input type="checkbox"/> Heart rate &gt; 130 per minute</p> <p><input type="checkbox"/> Not passed urine in 18 hours (&lt;0.5ml/kg/hr if catheterised)</p> <p><input type="checkbox"/> Non-blanching rash / mottled / ashen / cyanotic</p>		<p><b>RED FLAG SEPSIS START BUNDLE</b></p>
<p><b>04 ANY AMBER FLAGS PRESENT?</b></p> <p><input type="checkbox"/> Family report abnormal behavior or mental state</p> <p><input type="checkbox"/> Reduced functional ability</p> <p><input type="checkbox"/> Respiratory rate 21-24</p> <p><input type="checkbox"/> Systolic BP 91-100 mmHg</p> <p><input type="checkbox"/> Heart rate 91-130 or new dysrhythmia</p> <p><input type="checkbox"/> SpO<sub>2</sub> &lt; 92% on air or increased O<sub>2</sub> requirement</p> <p><input type="checkbox"/> Not passed urine in 12-18 hr (0.5ml/kg/hr to 1ml/kg/hr if catheterised)</p> <p><input type="checkbox"/> Immunocompromised</p> <p><input type="checkbox"/> Signs of infection including wound infection</p> <p><input type="checkbox"/> Temperature &lt;36°C</p>		
<p><b>NO AMBER FLAGS = ROUTINE CARE AND SAFETY-NETTING ADVICE:</b></p> <p>CALL 111 IF CONDITION CHANGES OR DETERIORATES. SIGNPOST TO AVAILABLE RESOURCES AS APPROPRIATE.</p>		<p><b>1 SAME DAY ASSESSMENT BY GP / TEAM LEADER</b></p> <p><b>2 IS URGENT REFERRAL TO HOSPITAL REQUIRED?</b></p> <p><b>3 AGREE AND DOCUMENT ONGOING MANAGEMENT PLAN (INCLUDING OBSERVATION FREQUENCY AND PLANNED SECOND REVIEW)</b></p>
<p><b>RED FLAG BUNDLE: DIAL 999 AND ARRANGE BLUE LIGHT TRANSFER IF PRESCRIBER AVAILABLE &amp; TRANSIT TIME &gt;1HR GIVE IV ANTIBIOTICS</b></p> <p>Ensure communication of 'Red Flag Sepsis' to crew. Advise crew to pre-alert as 'Red Flag Sepsis'. Where possible a written handover is recommended including observations and antibiotic allergies.</p>		<p><b>CALL 999 IF ANY OF:</b></p> <ul style="list-style-type: none"> <li>Slurred speech or confusion</li> <li>Extreme shivering or muscle pain</li> <li>Passing no urine (in a day)</li> <li>Severe breathlessness</li> <li>'I feel I might die'</li> <li>Skin mottled, ashen, blue or very pale</li> </ul>
<p><small>The controlled copy of this document is maintained by The UK Sepsis Trust. Any copies of this document held outside of that area, in whatever format (e.g. paper, email attachment) are considered to have passed out of control and should be checked for currency and validity.</small></p>		<p> <b>THE UK SEPSIS TRUST</b></p> <p>UKST 2024 1.0 PAGE 1 OF 1</p> <p><small>The UK Sepsis Trust registered charity number (England &amp; Wales) 3158843 (Scotland) SC050377. Company registration number 8644029. Sepsis Enterprises Ltd. company number 0583335. VAT reg. number 283133408.</small></p>

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### Appendix 3: MASCC risk index score

Category	Weight
Burden of illness: no or mild symptoms	5
No hypotension	5
No chronic obstructive pulmonary disease	4
Solid tumour or no previous invasive fungal infection	4
Outpatient status	3
Burden of disease: moderate symptoms	3
No dehydration	3
Aged <60 years	2

Abbreviation: MASCC=Multinational Association of Supportive Care in Cancer.

The maximum theoretical score is 26. A MASCC score of 21 identifies low-risk patients with a positive predictive value of 91%, specificity of 68% and sensitivity of 71% (Klastersky *et al*, 2000).

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## Appendix 4: Monitoring

What is to be monitored?	Methodology (incl. data source)	Frequency	Reviewed by	Group / Committee to be escalated to (if applicable)
Door to needle time (antibiotics to be given within 60 minutes of arrival to hospital)	Audit using data collection from Lorenzo	Annually	Acute Oncology Team	Quality Assurance / Medical Governance Group

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## Appendix 5: Values and Behaviours Framework

To help create a great place to work and a great place to be cared for, it is essential that our Trust policies, procedures and processes support our values and behaviours. This document, when used effectively, can help promote a positive workplace culture. By following our own policies and with our **ambitious** drive we can cultivate an **open, honest and transparent culture** that is truly **respectful and inclusive** and where we are **compassionate** towards each other.

For further information, you can also refer to Our People Strategy online. This aligns with the NHS People Promise and helps outline our commitments to working together to make UHMBT a great place to work.

**We are... Compassionate**

*We will:*

- Be kind and caring to each other, our patients and families and our partners
- Consider the feelings of others
- Work together to deliver safe care and a safe working environment
- Be proud of the role we do and how this contributes to patient care

[www.uhmb.nhs.uk](http://www.uhmb.nhs.uk)

**We are... Respectful and inclusive**

*We will:*

- Show respect to and for everyone
- Act professionally at all times
- Communicate effectively – listen to others and seek clarity when needed
- Value each other and the contribution of everyone

**We are... Ambitious**

*We will:*

- Go beyond traditional boundaries; being positively receptive to change and improvement
- Work with colleagues and system partners to improve services for our patients, families and carers
- Support each other to listen, learn and develop
- Collaborate with and empower each other

**We are... Open, honest and transparent**

*We will:*

- Seek out feedback and act on it
- Take personal responsibility and accountability for our own actions
- Not be afraid to be challenged
- Ensure consistency and fairness in our approach

@UHMBT

**Our People Strategy**

Working Together to **make UHMBT a Great Place to Work**

# People Promise

We are **compassionate and inclusive**

We are **recognised and rewarded**

We each have **a voice that counts**

We are **safe and healthy**

We are **always learning**

We work **flexibly**

We are **a team**

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## Appendix 6: Equality & Diversity Impact Assessment Tool



University Hospitals of  
Morecambe Bay  
NHS Foundation Trust

### Equality Impact Assessment Form

Department/Function	Oncology	
Lead Assessor	Rachel Simpson	
What is being assessed?	Neutropenic Sepsis in Adults	
Date of assessment	26/02/25	
What groups have you consulted with? Include details of involvement in the Equality Impact Assessment process.	Patient Experience and Involvement Group?	NO
	Staff Side Colleague?	NO
	Service Users?	NO
	Staff Inclusion Network(s)?	YES
	Personal Fair Diverse Champions?	NO
	Other (including external organisations): Acute Oncology Business Meeting, Sepsis Clinical Nurse Specialists	
<b>1) What is the impact on the following equality groups?</b>		
<b>Positive:</b> ➤ Advance Equality of opportunity ➤ Foster good relations between different groups ➤ Address explicit needs of Equality target groups	<b>Negative:</b> ➤ Unlawful discrimination / harassment / victimisation ➤ Failure to address explicit needs of Equality target groups	<b>Neutral:</b> ➤ It is quite acceptable for the assessment to come out as Neutral Impact. ➤ Be sure you can justify this decision with clear reasons and evidence if you are challenged
<b>Equality Groups</b>	<b>Impact</b> (Positive / Negative / Neutral)	<b>Comments</b> ➤ Provide brief description of the positive / negative impact identified benefits to the equality group. ➤ Is any impact identified intended or legal?
<b>Race</b> (All ethnic groups)	Neutral	
<b>Disability</b> (Including physical and mental impairments)	Neutral	
<b>Sex</b>	Neutral	
<b>Gender reassignment</b>	Neutral	
<b>Religion or Belief</b>	Neutral	
<b>Sexual orientation</b>	Neutral	
<b>Age</b>	Positive	Adult patients
<b>Marriage and Civil Partnership</b>	Neutral	
<b>Pregnancy and maternity</b>	Neutral	
<b>Other</b> (e.g. carers, veterans, people from a low	Neutral	

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socioeconomic background, people with diverse gender identities, human rights)		
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2) In what ways does any impact identified contribute to or hinder promoting equality and diversity across the organisation?	This guideline will be applicable to all adult patients with neutropenic sepsis
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3) If your assessment identifies a negative impact on Equality Groups you must develop an action plan <b>to avoid discrimination and ensure opportunities for promoting equality diversity and inclusion are maximised.</b>
➤ This should include where it has been identified that further work will be undertaken to further explore the impact on equality groups
➤ This should be reviewed annually.

Action Plan Summary

Action	Lead	Timescale
N/A		

This form will be automatically submitted for review once approved/noted by Trust Procedural Document Group. For all other assessments, please return an electronic copy to [EIA.forms@mbht.nhs.uk](mailto:EIA.forms@mbht.nhs.uk) once completed.

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