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AUTHOR: Dr Robin Portner Lindsay Wallbank		CLASSIFICATION: Organisational	
JOB TITLE: Consultant Acute Oncology Advanced Specialist Practitioner	DIVISION: Surgery	DEPARTMENT: Oncology	
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AMENDMENT HISTORY

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Does this document meet the requirements of the Equality Act 2010 in relation to Race, Religion and Belief, Age, Disability, Gender, Sexual Orientation, Gender Identity, Pregnancy & Maternity, Marriage and Civil Partnership, Carers, Human Rights and Social Economic Deprivation discrimination? Yes

Document for Public Display: No

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Suspect neutropenic sepsis which is an acute medical emergency

Patient has had chemotherapy within the last 6 weeks and presents generally unwell, with or without a temperature

Initial management (Follow sepsis pathway)

Obtain a full history and perform a clinical examination
Take vital signs and manage according to NEWS

Take bloods: FBC, U&E, LFT, Bone profile, CRP, Lactate, Magnesium, R. glucose, Coag, Urate and blood cultures (both peripheral and from the central line if one is present)

Obtain: MSSU/CSU, sputum, stool and any wound swabs as indicated

CXR not routinely required unless clinically indicated

No penicillin allergy
IV
Piperacillin/Tazobactam 4.5 gm

Give Intravenous antibiotics within 60 minutes of arrival to hospital – Do not wait for the blood results

Penicillin allergy (Not anaphylaxis)
IV
Meropenem 1gm

Suspected line infection
ADD IV Teicoplanin 12mg/kg (max 1g) to the other regimens (Not penicillin allergy)

Does the patient have confirmed neutropenic sepsis?
(neutrophils $\leq 0.5 \times 10^9$ per litre)
if Yes, continue with antibiotics (see table page 8) and contact the oncology team

Anaphylactic penicillin allergy
IV Teicoplanin 12mg/kg (max 1g) &
PO Ciprofloxacin* 750mg & PO Metronidazole* 400mg
*High oral bioavailability

Contact the Acute Oncology Team (08:30 – 16:30, Monday – Friday) via bleep 3316 (CDH) or 3353 (RPH)
If advice is required out-of-hours, contact the on-call oncologist or haematologist via the hospital switchboard

1. SUMMARY

Neutropenic sepsis is a potentially fatal complication of anticancer treatment with mortality rates ranging between 2% and 21% being reported in adults National Confidential Enquiry into Patient Outcome and Death (NCEPOD), (2008). With the use of aggressive inpatient intravenous antibiotic therapy, morbidity and mortality rates have reduced, and intensive care management is required in fewer than 5% of cases in England (National Institute for Health and Care Excellence (NICE), 2012). It is the most common, life threatening complication of cancer therapy and is considered an oncology emergency (British Medical Journal (BMJ), 2025).

The definition of Neutropenic Sepsis by NICE (2012) is:

Patients having anticancer treatment whose **neutrophil count is 0.5×10^9 per litre or lower** and who have either:

- a temperature higher than 38°C or
- other signs or symptoms consistent with clinically significant sepsis.

2. PURPOSE

- To support all health care providers in the early recognition, response and management of all adult patients with suspected or confirmed neutropenic sepsis.
- Promote good antimicrobial stewardship.

3. SCOPE

All staff at LTH, particularly those working within the acute medical areas and the oncology directorate.

These guidelines are for use within the secondary care setting only. Any concern within primary care or the community setting for a patient with suspected neutropenic sepsis are advised to contact the 24-hour oncology helpline for further advice.

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4. GUIDELINE

Neutropenic sepsis is a medical emergency that requires immediate hospital investigation and treatment.

Patients can present with a wide range of signs and symptoms which can include:

- History of temperature at home
- Temperature of $> 38^{\circ}\text{C}$ or $< 36^{\circ}\text{C}$
- Heart Rate of > 90
- Respiratory Rate of > 20
- Feel generally unwell
- Shivering/rigors
- Diarrhoea
- Sore throat
- Fatigue

Patients may appear well initially but if untreated can rapidly progress to septic shock and death.

Any patient that has had anti-cancer treatment within the last 6 weeks and presents unwell – suspect neutropenic sepsis until proven otherwise.

It is important to remember that Neutrophils are essential for a full immune response to infection, and neutropenic patients are unable to fight off infections untreated. They might rapidly become unwell, even when infected with organisms that would not normally cause illness in a person with a healthy immune system (Etheridge and Eagleton, 2011).

The absence of fever does not exclude infection in patients with neutropenia, patients may occasionally present without fever, especially if taking corticosteroids, but may have other signs and symptoms suggestive of infection i.e. hypotension/tachycardia (BMJ, 2025).

What to consider as per UKONS (2023):

- Sepsis 6
- What is the patient's NEWS 2 score?
- When was the last anti-cancer treatment given?
- Is there a history of a transplant?
- Is there a history of myelosuppression or known bone marrow failure? This could be related to a haematological malignancy, bone marrow transplant or high dose radiotherapy to the pelvis or sternum.
- Is there a history of previous neutropenic episodes?
- Focus infection screening questions to identify a potential source.

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Always 'think sepsis'. The definition of septic shock as per the UK Sepsis Trust (2024):

“Septic shock is a subset of sepsis were particularly profound circulatory, Cellular and metabolic abnormalities substantially increase mortality” (p. 14).

The UK Sepsis Trust (2024) recommends that the sepsis screen is performed if the patient has a:

- NEWS2 score of 5 or above
- Looks unwell to a clinician or carer
- Has had recent chemotherapy or immunotherapy
- Has a lactate 2mmol/L or above

Link to the Sepsis: Recognition, Diagnosis & Treatment Management guideline

<http://lthtr-documents/current/P754.pdf>

Management

Obtain a full history from the patient and/or carer.

The A,B,C,D,E approach of patient assessment can be utilised:

- **Airway**
 - Is the airway patent?
 - Use of any accessory muscles
 - Any unexpected sounds; stridor for example
 - Any object present obstructing the airway, secretions for example
- **Breathing**
 - Respiratory Rate
 - Oxygen Requirement
 - Cough present
- **Circulation**
 - Heart Rate
 - Blood Pressure
 - Capillary Refill time
 - Lactate
- **Disability**
 - New or altered mental state
- **Exposure**
 - Temperature
 - Non-blanching rash

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- Mottled, ashen or cyanotic appearance
- Any skin infections/obvious line infections
- Assess urine output

Investigations:

- **Bloods:**
 - FBC
 - U&E
 - LFT
 - Bone profile
 - Magnesium
 - Urate
 - Random Glucose
 - Coagulation screen
 - CRP
 - Lactate
 - Peripheral blood cultures (Ideally blood cultures should be taken pre antibiotics)
 - Central line blood cultures (if applicable)
 - Consider ABG if required.
- **NEWS 2 Score**
- **Sepsis Screen (depending on symptoms):**
 - Urinalysis/MSSU
 - Sputum culture
 - Faeces culture
 - Throat swab
 - Central line swab
 - Wound swab
 - CXR
 - ECG
 - Fungal serology for any patient at risk for invasive fungal infection (i.e. neutropenia > 10 days, prolonged use of high dose systemic corticosteroid)
 - An echocardiogram should be performed for all patients with Staphylococcus aureus bacteraemia to evaluate for infective endocarditis. It is also advisable to consider this test in individuals suspected of having infective endocarditis, including those who continue to have high-grade bacteraemia caused by other gram-positive bacteria. enterococci or viridians group streptococci), candida species and occasionally gram-negative rods.

(BMJ, 2025)

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Perform a full physical examination

This should include a review of:

- Sinuses
- Chest
- Skin/soft tissue
- Abdomen
- Perianal region
- Oral cavity/oropharynx

(BMJ, 2025)

The history should document factors associated with increased risk of febrile neutropenia, including the following:

- Age >65 years
- Haematological malignancy (increased risk compared with solid tumour)
- Low albumin (<35 g/L [<3.5 g/dL])
- Elevated bilirubin
- Elevated liver enzymes
- Pre-existing organ dysfunction (e.g., heart, liver, kidney disease) and comorbid conditions
- Recent
- Chemoradiotherapy
- First-cycle nadir absolute neutrophil count (<500 cells/microlitre)
- Prior chemotherapy-induced neutropenia
- Diagnosis
- Persistent neutropenia ≥ 7 days
- Bone marrow involvement
- Recent surgery
- Immunosuppressive therapy (i.e. high-dose corticosteroids)
- Advanced disease stage
- Female sex
- Eastern Cooperative Oncology Group performance status (ECOG PS) >1

The history should also include prior significant infections, recent antibiotic therapy or antimicrobial prophylaxis, and use of invasive devices (i.e. a central line, urinary catheter).

(BMJ, 2025)

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Treatment:

First line antibiotics should be administered within 1 hour of arrival to hospital (National Chemotherapy Advisory Group, 2009).

DOOR to NEEDLE TIME = 60 MINUTES

It is vital that the time of the first dose of antibiotics is recorded accurately.

Delays in antibiotic administration have been associated with extended hospital admissions and increased mortality (Klattersky, de Naurois, Rolston, Rapoport, Maschmeyer, Aapro & Herrstedt, 2016; BMJ, 2025)

If patient has red flag/high-risk sepsis follow sepsis screening and action tool, sepsis guidelines, perform sepsis six and consider referral to critical care.

Antibiotic guidance

	Patient NOT penicillin allergic	Penicillin allergy (not anaphylaxis)	Penicillin allergy (anaphylaxis)
1st Line	Piperacillin-Tazobactam 4.5g IV QDS	Meropenem 1g IV TDS	Teicoplanin 12mg/kg based on ABW rounded up to nearest 200mg (max 1g) IV BD for 3 doses, then OD AND Ciprofloxacin* 750mg PO BD AND Metronidazole 400mg PO TDS <i>Ciprofloxacin and Metronidazole have high oral bioavailability</i>
If not responding to first line antibiotics, consult culture results and liaise with microbiology.			
If high probability of line infection or known MRSA ADD to the above regimen Teicoplanin 12mg/kg based on absolute body weight rounded up to the nearest 200mg (max 1g) IV 12 hourly for 3 doses, then OD if not already receiving.			

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Oral Switch

Non-penicillin allergic	Penicillin allergy (anaphylaxis and non-anaphylaxis),	If known MRSA
Ciprofloxacin* 750mg PO BD AND Co-amoxiclav 625mg PO TDS.	Ciprofloxacin* 750mg PO BD AND Clindamycin 450mg PO QDS.	Discuss with microbiology

Consider the safety issues with Fluoroquinolone – See MHRA drug safety alerts

Duration

Continue inpatient empiric antibiotic therapy in all patients who have unresponsive fever unless an alternative cause of fever is likely.

Discontinue empiric antibiotic therapy in patients whose neutropenic sepsis has responded to treatment, irrespective of neutrophil count.

Typical duration of antibiotics is 5-7 days including the intravenous doses

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Early discharge for patients with febrile neutropenic sepsis

Whilst neutropenic sepsis is always approached as a medical emergency, in some circumstances if the patient is not clinically unwell, they can be managed in the outpatient setting.

Early supported discharges can prevent unnecessary admission and minimise length of stay, so it is not only cost-effective practice (Botten, Wennike, Ford, Michaels, Stephens & Baker, 2019) but also supports improving the patient experience.

However, early discharge needs to be safe, and the Multinational Association for Supportive Care in Cancer (MASCC) score, initially published in 2000, is a tool used to identify patients who have developed anti-cancer treatment related febrile neutropenia who are at low risk of serious medical complications. The score, alongside the patient's clinical presentation will help guide decision making about early supported discharge. **This decision is only to be made in conjunction with the parent oncology team or the oncology consultant/registrars on call.**

Procedure for Discharge of Patients with Low-Risk Febrile Neutropenic Sepsis utilising the MASCC score

The score table is below, and the patient will either score as low or high risk:

		Yes	No	Score
Does the patient have a solid tumour or lymphoma (except Burkitts) with no previous fungal infection?		4	0	
Is the patient dehydrated or requiring IV fluids?		0	3	
Is the systolic BP <90 mmHg?		0	5	
How sick is the patient now? (select one)	No or mild symptoms (events barely noticeable, not interfering with performance or functioning)	5	0	
	Moderate symptoms (patient uncomfortable or events influence performance of daily activities)	3	0	
	Severe symptoms (severe discomfort and/or performance of daily activities limited)	0	0	
Is the patient <60 years old		2	0	
Does the patient have COPD?		0	4	
Did the patient develop febrile neutropenia while an inpatient?		0	3	
Total MASCC Score				

Score \geq 21 = Low risk: assess whether patient can be managed as outpatient with oral antibiotics

Score < 21 = High risk: treat as inpatient with intravenous antibiotics

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Low risk patients (MASCC score \geq 21):

There are specific criteria for early discharge which will need to be met:

Criteria for early discharge:

- MASCC score \geq 21.
- No evidence of focal infection such as cellulitis, abscess, pneumonia, line infection.
- No diarrhoea or recent clostridium difficile infection.
- No recent positive microbiology culture results suggesting that co-amoxiclav/ciprofloxacin combination would be inappropriate.
- The patient has not received prophylaxis with ciprofloxacin within the last 28 days.
- Able to swallow tablets.
- No vomiting within the previous 24 hours.
- Confidence that the patient will recontact if deteriorates.

The decision for early discharge should be made by a consultant oncologist or haematologist, or by the on-call oncology registrar (who should only allow discharge following discussion with the consultant on call).

Patients should be discharged home with a copy of the patient information sheet: [Patient Discharge Information Discharge information for patients with an infection and low white blood count \(neutropenia\) following chemotherapy](#)

It is the discharging doctor's responsibility to assess the patient's understanding of the information and that they fulfil criteria for early discharge on oral antibiotics as well as ensuring that the patient's telephone details are recorded accurately on the Flex system.

The oncology doctor who has authorised the early discharge will need to consult with the chemotherapy support team. They will then arrange timely follow up calls to be made to the patient (ideally within 24 hours of discharge, or the next working day), as well as reviewing culture results and arranging alternative antibiotics if required once the patient has been discharged.

Patients, in whom there has been any deterioration, should be re-admitted.

High risk patients (Score $<$ 21):

These patients will need to stay in for intravenous antibiotics as the risk for bacterial sepsis will be high (Klattersky et al., 2016).

Daily assessment will be required by the medical team (or Oncology if on Ribblesdale ward) to assess the results of fever trends, daily FBC and U&E results until the patient is afebrile and has a neutrophil count of $\geq 0.5 \times 10^9/L$ for 24 hours.

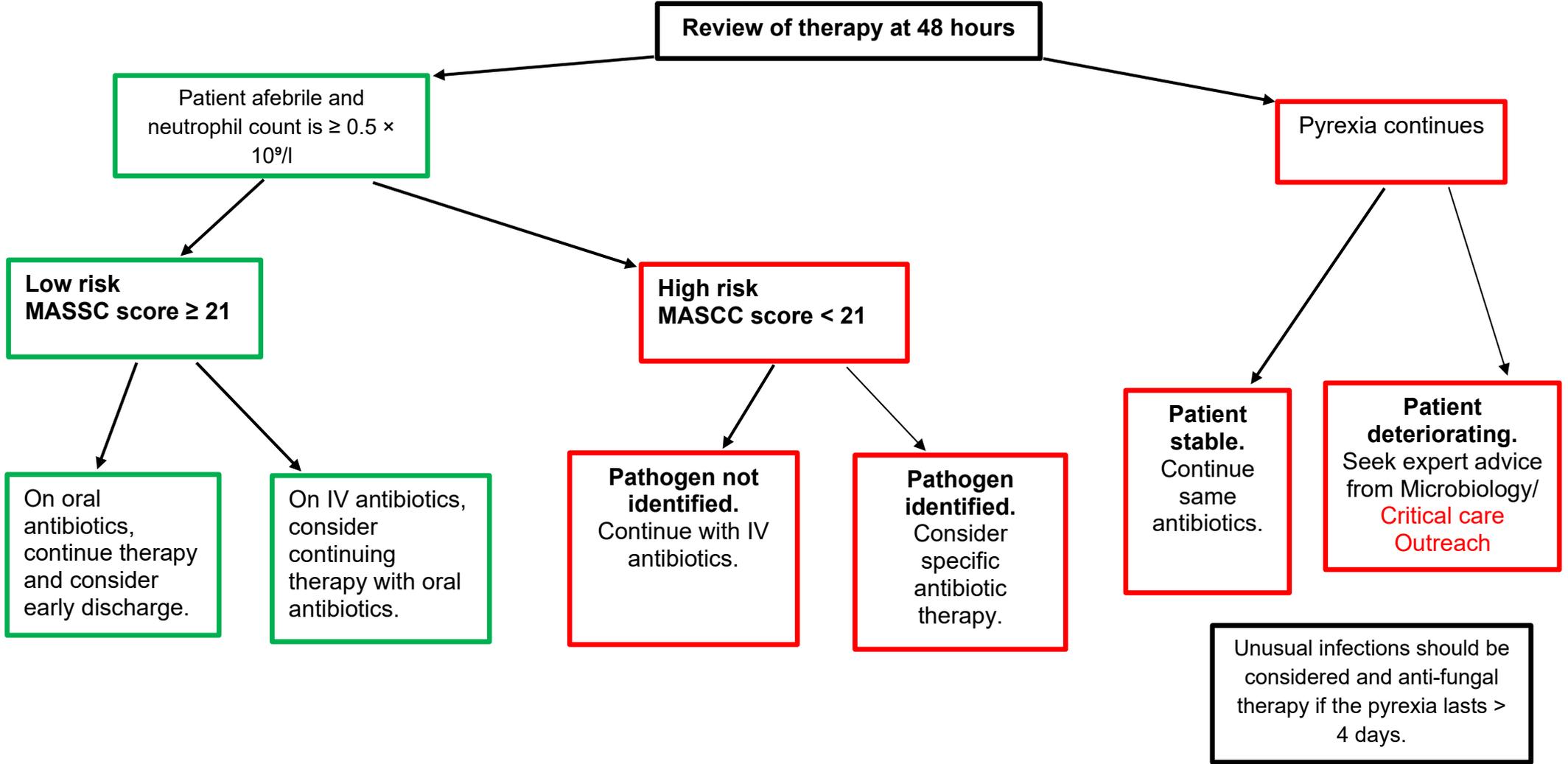
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Repeated imaging may be required in patients with persistent pyrexia (Klattersky et al., 2016).

The addition of empirical mould-active antifungal therapy should be considered for high-risk patients with persistent fever who have received over 4 days of empirical antibiotic therapy (BMJ, 2025).

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Review at 48 hours post admission (adapted from Klattersky et al., 2016).



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Other information:

Central Lines

Possible signs of a central line infection

- Temperature and/or rigors after flushing of the line
- Discharge from the exit site
- Inflammation around the exit site (exit site infection)
- Positive blood cultures from the line

Please refer to the LTHTR trust guidelines '[Guideline for Management of Suspected and Confirmed Central Line Infections](#)'.

Please note, that these guidelines are not specific to patients receiving recent chemotherapy, especially platinum-based regimens (e.g. carboplatin or cisplatin) where we would strongly advise against the use of aminoglycoside antibiotic (e.g. gentamicin) due to the high risk of nephrotoxicity.

**In cases of recent platinum-based chemotherapy use:
Piperacillin/Tazobactam IV 4.5 gm QDS & Teicoplanin IV 12mg/kg (max 1g)
based on absolute body weight rounded to the nearest 200mg 12 hourly for 3
doses then OD.**

Do not remove central venous access devices as part of the initial empiric management of suspected neutropenic sepsis (NICE, 2012).

Removal of the line is generally indicated in the following context

- Tunnel infections
- Pocket infections (implanted port system)
- Persistent bacteraemia despite adequate treatment
- Atypical mycobacterial infection and candidemia

If the line is removed, send the tip of the line for culture and sensitivity testing.

Regarding line infections caused by *Staphylococcus aureus*, the literature is divided. The desire to preserve the line must be balanced against the risk of metastatic spread by bloodstream seeding. The recommendation should be to remove the line, if possible, while recognising that, with careful management, it might be possible to maintain it for a short period, however, persistent fever and bacteraemia despite appropriate antibiotics are indications for line removal (Klattersky et al., 2016).

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Guidance on the use of Filgrastim (G-CSF)

The use of Granulocyte Colony Stimulating Factor (G-CSF) varies depending on the type of malignancy.

For **solid organ malignancies within oncology**:

G-CSF should not be routinely prescribed for the treatment of patients with uncomplicated febrile or afebrile neutropenia.

It is recommended by the Northern Cancer Alliance NHS (2018) and BMJ (2025), that G-SCF should only be considered for the supportive treatment of patients with severe febrile neutropenia in the following scenarios:

- Profound febrile neutropenia whereby the absolute neutrophil count (ANC) is $<0.1 \times 10^9/L$ and the patient is febrile

Alongside any one of the following prognostic factors that are predictive of poor clinical outcome:

- Clinically unwell with signs such as hypotension, organ dysfunction etc. indicating a potential risk of septic shock
- Expected prolonged duration of neutropenia (>10 days)
- Persistent pyrexia despite appropriate antibiotics/antifungals
- Uncontrolled primary disease
- Pneumonia
- Proven or suspected invasive fungal infection

Drug	Weight	Dosage	Route	Frequency	When to stop
Filgrastim	<60kg	300 micrograms	S/C	OD	When the Neutrophil count is $>0.5 \times 10^9/L$ For 2 consecutive days
	61-96kg	480 micrograms			
	$\geq 97kg$	600 micrograms			

Patients treated with a longer-acting pegylated G-CSF should not be treated with additional G-CSF.

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Haematological Malignancies and GCSF

For **haematological malignancies**, please discuss with the haematology team directly either via phone call or through the patient pass system regarding the use of GCSF.

For patients with **haematological malignancies**, it is crucial to know the specific type of malignancy as GCSF is not recommended for all conditions:

- In myeloid malignancies, such as AML, GCSF is not recommended unless specifically part of a protocol.
- GCSF is used sparingly and with caution in patients with Hodgkin Lymphoma, who are on a Bleomycin-containing regimen (e.g., ABVD, Escalated BEACOPP-Dac), due to the risk of increased lung toxicity.
- GCSF is used with caution in patients with an enlarged spleen, as there is a risk of splenic rupture.
- For most Non-Hodgkin Lymphoma (low grade and high grade), GCSF can be given as per neutropenic sepsis guidelines, however, **it is always best to discuss with the haematology team.**

Contacts:

Acute Oncology Team CDH: Bleep 3316 (Available Mon-Fri 08:30 – 16:30)

Acute Oncology Team RPH: Bleep 3353 (Available Mon-Fri 08:30 – 16:30)

Oncology Registrar On-Call: Contact via the hospital switchboard

Critical Care registrar: Bleep 3186

Critical Care Outreach CDH: Bleep 3456

Critical Care Outreach RPH: Bleep 3388

Hospital at Night: Bleep 9090

Haematology: Patient pass

Microbiology: Complete a MOLES referral form on the intranet

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5. AUDIT AND MONITORING

Compliance will be prospectively audited by the Acute Oncology Team. Annual audits will be presented at the Acute Oncology network meetings. Compliance is included in the reports and cascaded to Clinical leads.

All patients who have died from neutropenic sepsis and not received antibiotics within 60 minutes of arrival to hospital will need this reported as an incident on the Trusts risk and incident management system- Ulysses.

Death from Neutropenic Sepsis should be included on the death certificate as per NCEPOD (2015) recommendations.

6. TRAINING

TRAINING		
Is training required to be given due to the introduction of this policy? No		
Action by	Action required	Implementation Date

7. DOCUMENT INFORMATION

ATTACHMENTS	
Appendix Number	Title
Appendix 1	Equality, Diversity & Inclusion Impact Assessment Form

OTHER RELEVANT / ASSOCIATED DOCUMENTS

Unique Identifier	Title and web links from the document library
TP-287	Prescribing Antimicrobials
EBG00599	Sepsis: Recognition, Diagnosis and Treatment
EBG00689	Guideline for Management of Suspected and Confirmed Central Line Infections
Leaflet	Neutropenic sepsis patient leaflet https://www.lancsteachinghospitals.nhs.uk//media/.leaflets/6672f03aa13520.14709124.pdf
Leaflet	Discharge information for patients with an infection and low white blood count (neutropenia) following chemotherapy. https://www.lancsteachinghospitals.nhs.uk//media/.leaflets/68c134e164dc40.18469170.pdf

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SUPPORTING REFERENCES / EVIDENCE BASED DOCUMENTS

References in full checked by the library 12/01/2026 SR

Number	References
1	BMJ Best Practice, (2025). <i>Febrile Neutropenia</i> . Retrieved from https://bestpractice.bmj.com/topics/en-gb/950/pdf/950/Febrile%20neutropenia.pdf
2	Brunner, C., Botten, J., Wennike, N., Ford, L., Michaels, K., Stephens, A., & Baker, R. (2019). Early Supported Discharge for patients with febrile neutropenia - Experience at a large district hospital in the UK <i>Acute Med</i> . 18(1):14-19. https://pubmed.ncbi.nlm.nih.gov/32608388/
3	Etheridge, Z., & Eagleton, H. (2011). Neutropenic Sepsis. <i>BMJ</i> . 342. Doi: https://doi.org/10.1136/sbmj.d785
4	Klattersky, J., de Naurois, J., Rolston, K., Rapoport, B., Aapro, M., & Herrstedt, J. (2016). Management of febrile neutropaenia: ESMO Clinical Practice Guidelines https://www.annalsofoncology.org/article/S0923-7534(19)31643-6/fulltext
5	National Chemotherapy Advisory Group (2009), Chemotherapy Services in England: Ensuring quality and safety. https://webarchive.nationalarchives.gov.uk/ukgwa/20130104173757/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_104500
6	National Confidential Enquiry into Patient Outcome and Death (NCEPOD) (2008). For better, for worse https://www.ncepod.org.uk/2008report3/Downloads/SACT_summary.pdf
7	National Confidential Enquiry into Patient Outcome and Death (NCEPOD) (2015) <i>Just say sepsis! A review of the process of care received by patients with sepsis</i> . https://www.ncepod.org.uk/2015report2/downloads/JustSaySepsis_FullReport.pdf
8	National Institute for Health and Clinical Excellence (2012) <i>Neutropenic sepsis: prevention and management of neutropenic sepsis in cancer patients</i> . https://www.nice.org.uk/guidance/cg151
9	Northern Cancer Alliance NHS, (2018). <i>Guideline for the use of granulocyte-colony stimulating factor (G-CSF) in adult oncology and haematology patients</i> https://www.northerncanceralliance.nhs.uk/Guidelines-Northern-Cancer-Alliance-January-2018-v1.5.pdf
10	UK Sepsis Trust (2024). The Sepsis Manual, 7 th Edition. https://sepsistrust.org/wp-content/uploads/2024/07/Sepsis-Manual-7th-Edition-2024-V1.0.pdf
11	United Kingdom Oncology Nursing Society (UKONS) (2023). Acute Oncology Initial Management Guidelines, Version 4.0. Retrieved from https://ukons.hosting.sundownsolutions.co.uk/UKONS%20AO%20initial%20management%20Guidelines%20FINAL%20VERSION%20[2023].pdf
Bibliography	

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DEFINITIONS / GLOSSARY OF TERMS

Abbreviation or Term	Definition
BMJ	British Medical Journal
CDH	Chorley District Hospital
LTH	Lancashire Teaching Hospitals
NCEPOD	National Confidential Enquiry Patient Outcomes and Death
NEWS	National Early Warning Score
NICE	National Institute for Clinical Excellence
RPH	Royal Preston Hospital

CONSULTATION WITH STAFF AND PATIENTS

Enter the names and job titles of staff and stakeholders that have contributed to the document

Name	Job Title	Date Consulted
David Barber	Lead Oncology Pharmacist	12 th August 2025
Sabina Bashir	Lead Antimicrobial Pharmacist	12 th August 2025
Dr Farhan Khalid	Haematology Registrar	14 th March 2025

DISTRIBUTION PLAN

Dissemination lead:	Dr R Portner
Previous document already being used?	Yes
If yes, in what format and where?	Online trust guidelines, no print copies in use
Proposed action to retrieve out-of-date copies of the document:	Old online guidelines to be replaced
To be disseminated to:	Trust Wide
Document Library	
Proposed actions to communicate the document contents to staff:	Include in the LTHTR weekly Procedural documents communication– New documents uploaded to the Document Library

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Appendix 1

Equality, Diversity & Inclusion Impact Assessment Form

Department/Function	Oncology			
Lead Assessor	Dr Robin Portner			
What is being assessed?	Impact of Neutropenic Sepsis guidelines			
Date of assessment	27/02/2025			
What groups have you consulted with? Include details of involvement in the Equality Impact Assessment process.	Equality of Access to Health Group	<input type="checkbox"/>	Staff Side Colleagues	<input checked="" type="checkbox"/>
	Service Users	<input type="checkbox"/>	Staff Inclusion Network/s	<input type="checkbox"/>
	Personal Fair Diverse Champions	<input type="checkbox"/>	Other (Inc. external orgs)	<input type="checkbox"/>
	Discussed with sepsis working group			

1) What is the impact on the following equality groups?		
Positive:	Negative:	Neutral:
<ul style="list-style-type: none"> ➤ Advance Equality of opportunity ➤ Foster good relations between different groups ➤ Address explicit needs of Equality target groups 	<ul style="list-style-type: none"> ➤ Unlawful discrimination, harassment and victimisation ➤ Failure to address explicit needs of Equality target groups 	<ul style="list-style-type: none"> ➤ 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
Equality Groups	Impact (Positive / Negative / Neutral)	Comments:
Race (All ethnic groups)	Neutral	<ul style="list-style-type: none"> ➤ Provide brief description of the positive / negative impact identified benefits to the equality group. ➤ Is any impact identified intended or legal?
Disability (Including physical and mental impairments)	Neutral	
Sex	Neutral	
Gender reassignment	Neutral	
Religion or Belief (includes non-belief)	Neutral	
Sexual orientation	Neutral	
Age	Negative	This guideline only applies to adult patients

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Marriage and Civil Partnership	Neutral	
Pregnancy and maternity	Negative	This Document excludes Pregnancy and Maternity patients
Other (e.g. caring, human rights, social)	Neutral	

2) In what ways does any impact identified contribute to or hinder promoting equality and diversity across the organisation?	
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3) If your assessment identifies a negative impact on Equality Groups you must develop an action plan to avoid discrimination and ensure opportunities for promoting equality diversity and inclusion are maximised.
➤ 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

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HOW THE NHS CONSTITUTION APPLIES TO THIS DOCUMENT

WHICH PRINCIPLES OF THE NHS CONSTITUTION APPLY? Click here for guidance on Principles	Tick those which apply	WHICH STAFF PLEDGES OF THE NHS CONSTITUTION APPLY? Click here for guidance on Pledges	Tick those which apply
1. The NHS provides a comprehensive service, available to all. 2. Access to NHS services is based on clinical need, not an individual's ability to pay. 3. The NHS aspires to the highest standards of excellence and professionalism. 4. The patient will be at the heart of everything the NHS does. 5. The NHS works across organisational boundaries. 6. The NHS is committed to providing best value for taxpayers' money. 7. The NHS is accountable to the public, communities and patients that it serves.	✓ ✓ ✓ ✓ <input type="checkbox"/> ✓ ✓	1. Provide a positive working environment for staff and to promote supportive, open cultures that help staff do their job to the best of their ability. 2. Provide all staff with clear roles and responsibilities and rewarding jobs for teams and individuals that make a difference to patients, their families and carers and communities. 3. Provide all staff with personal development, access to appropriate education and training for their jobs, and line management support to enable them to fulfil their potential. 4. Provide support and opportunities for staff to maintain their health, wellbeing and safety. 5. Engage staff in decisions that affect them and the services they provide, individually, through representative organisations and through local partnership working arrangements. All staff will be empowered to put forward ways to deliver better and safer services for patients and their families. 6. To have a process for staff to raise an internal grievance. 7. Encourage and support all staff in raising concerns at the earliest reasonable opportunity about safety, malpractice or wrongdoing at work, responding to and, where necessary, investigating the concerns raised and acting consistently with the Employment Rights Act 1996.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ✓ <input type="checkbox"/>
WHICH AIMS OF THE TRUST APPLY? Click here for Aims	Tick those which apply <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	WHICH AMBITIONS OF THE TRUST APPLY? Click here for Ambitions	Tick those which apply ✓ <input type="checkbox"/> ✓ <input type="checkbox"/>

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