

## Neutropenic sepsis overview

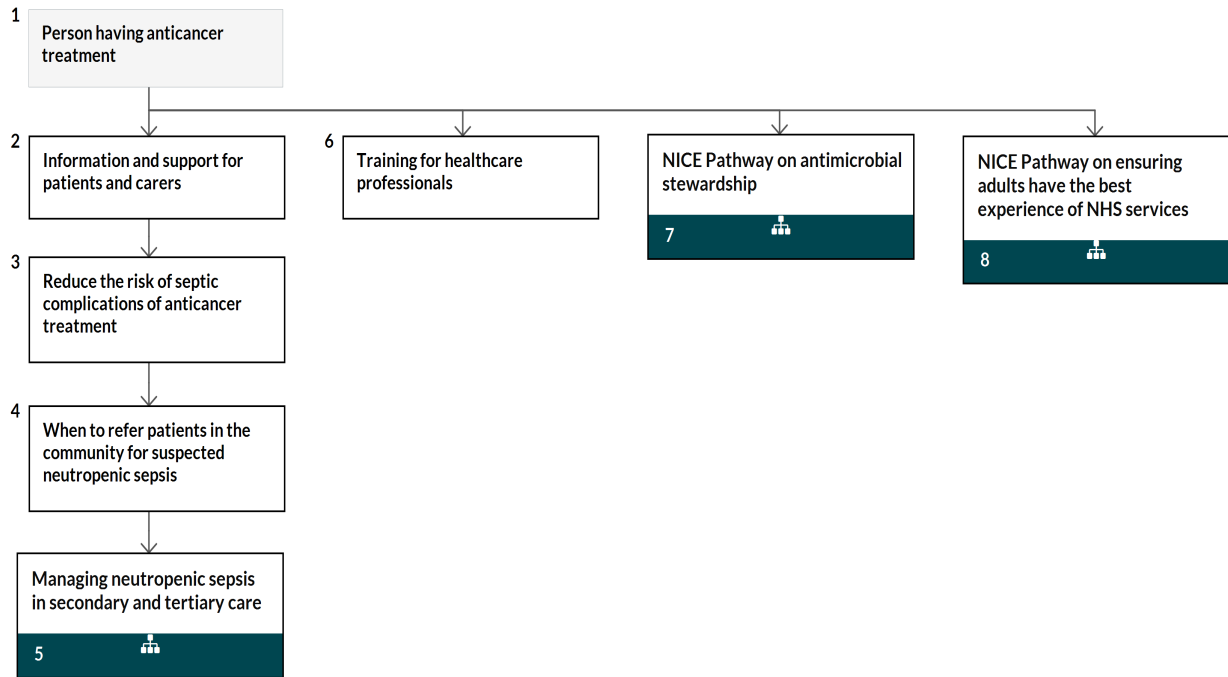
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/neutropenic-sepsis>

NICE Pathway last updated: 04 November 2020

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



## 1 Person having anticancer treatment

No additional information

## 2 Information and support for patients and carers

Provide patients having anticancer treatment and their carers 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.

NICE has written information for the public on [neutropenic sepsis: prevention and management in people with cancer](#).

## 3 Reduce the risk of septic complications of anticancer treatment

A [table of NHS England interim treatment regimens](#) gives possible alternative treatment options for use during the COVID-19 pandemic to reduce infection risk. This may affect decisions for people with cancer. See the [COVID-19 rapid guideline: delivery of systemic anticancer treatments](#) for more details.

For adult patients (aged 18 years and older) with acute leukaemias, stem cell transplants or solid tumours in whom significant neutropenia (neutrophil count  $0.5 \times 10^9$  per litre or lower) is an anticipated consequence of chemotherapy, offer prophylaxis with a fluoroquinolone<sup>1</sup> during the expected period of neutropenia only. Follow the [MHRA safety advice on fluoroquinolone antibiotics](#).

Rates of antibiotic resistance and infection patterns should be monitored in treatment facilities where patients are having fluoroquinolones for the prophylaxis of neutropenic sepsis. For more information see the Department of Health's [Updated guidance on the diagnosis and reporting of Clostridium difficile](#) and guidance from the Health Protection Agency and Department of Health on [Clostridium difficile infection: how to deal with the problem](#).

Do not routinely offer G-CSF for the prevention of neutropenic sepsis in adults receiving chemotherapy unless they are receiving G-CSF as an integral part of the chemotherapy

regimen or in order to maintain dose intensity.

#### **4 When to refer patients in the community for suspected neutropenic sepsis**

Suspect neutropenic sepsis in patients having anticancer treatment who become unwell.

Refer patients with suspected neutropenic sepsis immediately for assessment in secondary or tertiary care.

#### **5 Managing neutropenic sepsis in secondary and tertiary care**

[See Neutropenic sepsis / Managing neutropenic sepsis in secondary and tertiary care](#)

#### **6 Training for healthcare professionals**

Healthcare professionals and staff who come into contact with patients having anticancer treatment should be provided with training on neutropenic sepsis. The training should be tailored according to the type of contact.

#### **7 NICE Pathway on antimicrobial stewardship**

[See Antimicrobial stewardship](#)

#### **8 NICE Pathway on ensuring adults have the best experience of NHS services**

[See Patient experience in adult NHS services](#)

<sup>1</sup> At the time of review (November 2019), fluoroquinolone antibiotics did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the [General Medical Council's Prescribing guidance: prescribing unlicensed medicines](#) for further information.

## Glossary

### Anticancer treatment

(given with the intent to reduce the level of cancer cells in a patient; it includes, but is not limited to, chemotherapy and radiotherapy)

### G-CSF

(granulocyte-colony stimulating factor; a type of protein that stimulates the bone marrow to make white blood cells (granulocytes))

## Sources

[Neutropenic sepsis: prevention and management in people with cancer](#) (2012) NICE guideline CG151

## Your responsibility

### Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

### **Technology appraisals**

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

### **Medical technologies guidance, diagnostics guidance and interventional procedures guidance**

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in

their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.