

## Myeloma overview

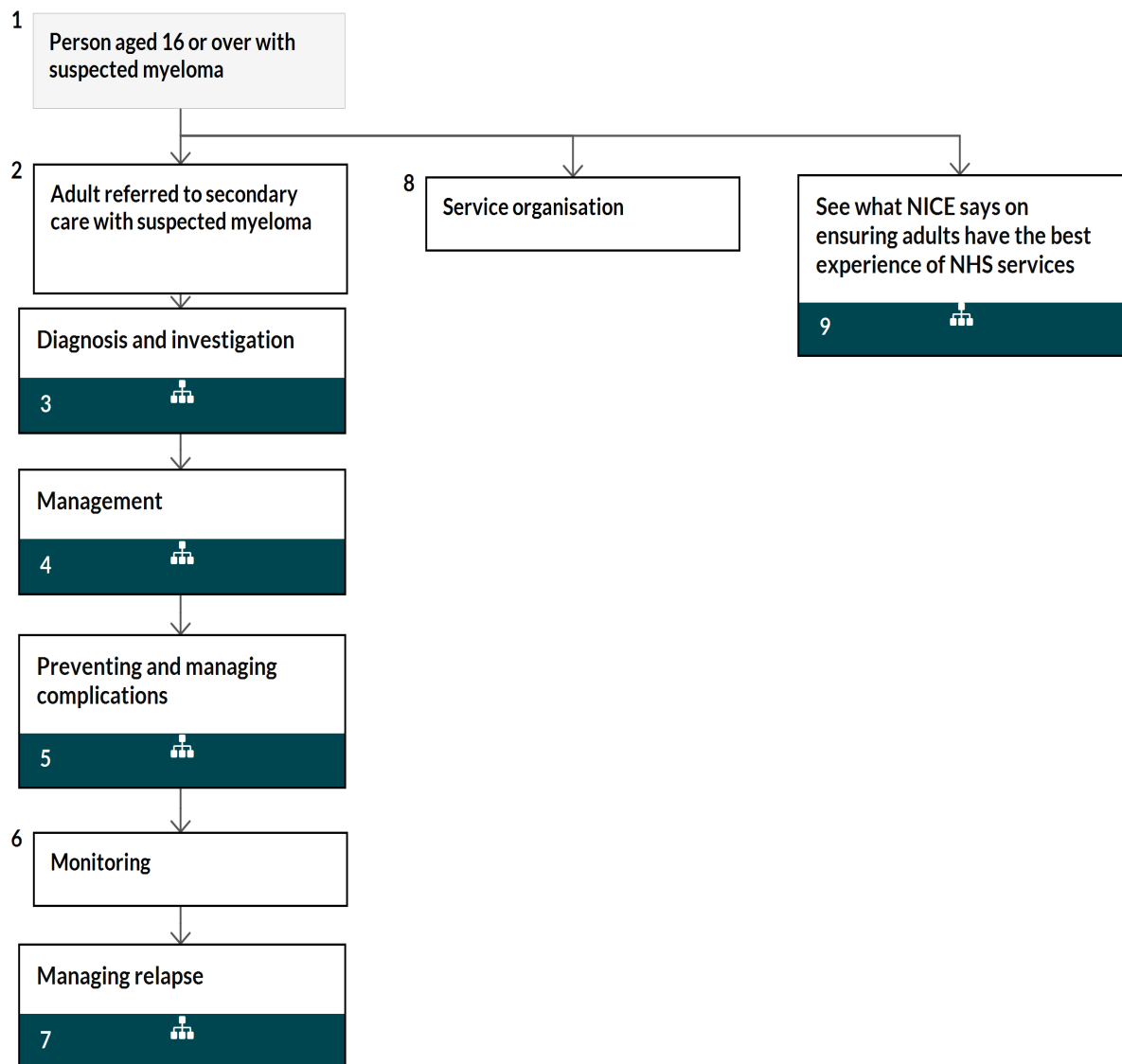
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

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/myeloma>

NICE Pathway last updated: 24 September 2019

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



## 1 Person aged 16 or over with suspected myeloma

No additional information

## 2 Adult referred to secondary care with suspected myeloma

See NICE's recommendations on [recognition and referral from primary to secondary care for suspected myeloma](#).

## 3 Diagnosis and investigation

See [Myeloma / Diagnosis and investigation of myeloma](#)

## 4 Management

See [Myeloma / Managing myeloma](#)

## 5 Preventing and managing complications

See [Myeloma / Preventing and managing complications of myeloma](#)

## 6 Monitoring

Monitor people with smouldering myeloma every 3 months for the first 5 years, and then decide the frequency of further monitoring based on the long-term stability of the disease.

Monitor people who have completed myeloma treatment and recovered at least every 3 months. Take into account any risk factors for progression, such as:

- high-risk FISH
- impaired renal function
- disease presentation.

Monitoring for myeloma and smouldering myeloma should include:

- assessment of symptoms related to myeloma and myeloma treatment and
- the following laboratory tests:
  - full blood count
  - renal function
  - bone profile
  - serum immunoglobulins and serum protein electrophoresis
  - serum-free light-chain assay, if appropriate.

Do not offer people with myeloma or smouldering myeloma routine skeletal surveys for disease monitoring.

Consider symptom-directed imaging for people with myeloma or smouldering myeloma if any new bone symptoms develop.

For people with myeloma and serological relapse or disease progression, consider one of the following (taking into consideration previous imaging tests):

- whole-body MRI
- spinal MRI
- FDG PET-CT.

For people with smouldering myeloma and disease progression, consider one of the following (taking into consideration previous imaging tests):

- whole-body MRI
- whole body low-dose CT
- whole body CT
- spinal MRI
- FDG PET-CT.

## 7 Managing relapse

[See Myeloma / Managing relapse of myeloma](#)

## 8 Service organisation

For guidance on the facilities needed to provide intensive inpatient chemotherapy and transplants for people with myeloma, and the structure and function of MDTs, see NICE's recommendations on [service organisation for blood and bone marrow cancers](#).

For guidance on service organisation for young people, see the NICE cancer service guideline on [improving outcomes in children and young people with cancer](#).

Each hospital treating people with myeloma who are not receiving intensive inpatient chemotherapy or a transplant should provide local access to:

- an MDT
- supportive and palliative care, supported by:
  - psychological support services
  - a 24-hour acute oncology and/or haematology helpline
  - physiotherapy
  - occupational therapy
  - dietetics
  - medical social services
  - critical care
- clinical trials via the MDT specialising in myeloma
- dental services.

Each hospital treating people with myeloma should provide regional access through its network to:

- facilities for intensive inpatient chemotherapy or transplantation
- renal support
- spinal disease management
- specialised pain management
- therapeutic apheresis
- radiotherapy
- restorative dentistry and oral surgery
- clinical trials, in particular early phase trials.

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**9 See what NICE says on ensuring adults have the best experience of NHS services**

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

## Why we made the recommendations on ixazomib

Ixazomib, with lenalidomide and dexamethasone, has a marketing authorisation to treat multiple myeloma in people who have already had 1 or more lines of therapy. But it is likely to be used only for people who have already had 2 or 3 lines of therapy, for whom current treatment is lenalidomide plus dexamethasone, so the appraisal focused on this population.

The main clinical trial is ongoing. For people who have already had 2 or 3 lines of therapy, ixazomib (with lenalidomide and dexamethasone) increases the length of time they live without their disease progressing, when compared with lenalidomide plus dexamethasone alone. It is not yet clear whether ixazomib (with lenalidomide plus dexamethasone) prolongs life compared with lenalidomide plus dexamethasone alone, but the initial results are promising.

Ixazomib does not meet NICE's criteria to be considered a life-extending treatment at the end of life.

Ixazomib has the potential to be cost effective for people who have had 2 or 3 lines of therapy, at the price agreed in a commercial access agreement as part of the managed access agreement. But more evidence is needed to address the clinical uncertainties. It can therefore be recommended for use within the Cancer Drugs Fund while further data are collected from the clinical trial, and through the Systemic Anti-Cancer Therapy dataset.

For more information see the committee discussion in the NICE technology appraisal guidance on [ixazomib with lenalidomide and dexamethasone for treating relapsed or refractory multiple myeloma](#).

## Glossary

### FDG PET-CT

fluorodeoxyglucose positron emission tomography CT

### FISH

fluorescence in-situ hybridisation

### GvHD

graft-versus-host disease

**HLA**

human leukocyte antigen

**INR**

international normalised ratio

**ISS**

international Staging System

**LMWH**

low molecular weight heparin

**MDT**

multidisciplinary team

**MDTs**

multidisciplinary teams

**MGUS**

monoclonal gammopathy of undetermined significance

**smouldering myeloma**

(asymptomatic myeloma which has no evidence of myeloma-related organ or tissue injury or a myeloma defining event)

**CMV**

cytomegalovirus

**HSCT**

haematopoietic stem cell transplant



## Sources

[Myeloma: diagnosis and management](#) (2016) NICE guideline NG35

[Improving outcomes in children and young people with cancer](#) (2005) NICE guideline CSG7

## 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.