The scope has been amended. The role of centralised specialist laboratories offering integrated diagnostic reporting in the diagnosis of Myeloma has been removed from the scope and added as a topic within the update of the Improving Outcomes in Haematological Cancers service guidance, which is now in development. For more information please see http://www.nice.org.uk/guidance/indevelopment/gid-cgwave0747

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

SCOPE

1 Guideline title

Myeloma: diagnosis and management of myeloma

1.1 Short title

Myeloma

2 The remit

The Department of Health has asked NICE: 'to develop a guideline on the diagnosis and management of multiple myeloma'.

3 Need for the guideline

The management of myeloma is complex and challenging. It increasingly involves the use of expensive drugs. The guideline will aim to raise standards nationally while allowing clinical flexibility and defining a common pathway for patients at various stages of their illness, and of different ages and levels of fitness. Although a consistent approach to management is desirable, it needs to reflect the very different groups of patients with myeloma from the fit and suitable for transplant, fairly fit but not suitable for transplant to patients who are extremely frail and/or unwell.

3.1 Epidemiology

a) Myeloma is the 17th most common cancer in the UK and the 14th most common cancer in men, according to figures from 2009. Incidence rates have remained stable over the past 10 years.

b) In 2010, 4672 people were diagnosed with myeloma in the UK.

c) Myeloma occurs most commonly in older people, with 71% of cases diagnosed in people aged 65 years and over. Incidence increases with age, peaking in those aged 85 years and over.

d) Myeloma is almost twice as common in men and women of African-Caribbean family origin compared with people of other family origins.

e) Although there have been substantial improvements in the duration and quality of survival during the past 15 years, myeloma remains incurable. Median survival is currently about 5 years. A significant minority (10%) of patients die within 3 months of diagnosis.

f) Survival rates are higher in younger patients. This is thought to be partly a result of differences in treatment options for younger and older patients.

g) Myeloma is usually preceded by an asymptomatic monoclonal gammopathy of undetermined significance (MGUS). It is important to distinguish between MGUS and myeloma at the time of diagnosis.

3.2 Current practice

a) The non-specific clinical presentation of myeloma (bone pain, symptoms of impaired renal function, anaemia, hypercalcaemia and hyperviscocity) often results in delayed diagnosis; 38% of cases are diagnosed only after emergency admission to hospital.

b) Diagnosis of myeloma is made using international criteria published by the International Myeloma Working Group in 2003. The use of genetic profiling to give predictive and prognostic information is increasing.

c) Several novel drug treatments have been licensed in the past 10 years, but there is some variation in the regimens used and the timing of using these drugs. High-dose chemotherapy with stem cell transplantation is a standard of care for patients who are fit enough for this procedure.

d) Symptom-based and supportive management are especially important because of the complex nature of the disease and side effects of its treatment. Management may include radiotherapy, bisphosphonate treatment, pain control, treatment of bone and renal complications, and psychosocial support.

e) A specialist multidisciplinary approach should involve the core multidisciplinary team (MDT) (as defined in Improving outcomes in haematological cancers [NICE cancer service guidance]) but also a wider group of specialists including: graduate and biomedical scientists, clinical oncologists, spinal surgeons, radiologists, renal physicians, orthopaedic surgeons and oncology pharmacists. There should also be links to community care through the GP.

f) When determining treatment for patients with myeloma, their response to previous treatment, frailty, previous toxicities and comorbidities need to be considered.

4 The guideline

The guideline development process is described in detail on the NICE website (see section 6, ‘Further information’).

This scope defines what the guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health.

The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered

a) Adults (aged 16 years and over) referred to secondary care with suspected myeloma, including those with MGUS.

b) Adults (aged 16 years and over) with newly diagnosed or relapsed myeloma.

c) Adults (aged 16 years and over) with high-risk myeloma, including primary plasma cell leukaemia.

d) No patient subgroups have been identified as needing specific consideration.

4.1.2 Groups that will not be covered

a) Children and young people (under 16 years) with suspected or diagnosed myeloma.

b) People with:

- solitary plasmacytoma in the absence of myeloma
- amyloid light-chain (AL) amyloidosis in the absence of myeloma
- paraproteins secondary to other conditions.

4.2 Setting

a) All settings in which NHS-funded care is provided.

4.3 Management

4.3.1 Key issues that will be covered

a) The specific information and support needs of patients with myeloma and their families and carers at diagnosis and treatment planning, and during and after treatment (including end of life care).

b) The role of centralised specialist laboratories offering integrated diagnostic reporting in the diagnosis of Myeloma has been removed from the scope and added as a topic within the update of the Improving Outcomes in Haematological Cancers service guidance, which is now in development. For more information please see http://www.nice.org.uk/guidance/indevelopment/gid-cgwave0747.

c) The role of specialist diagnostic investigations, including trephine biopsy, immunophenotyping, cytogenetics and molecular technologies, in diagnosing MGUS and standard and high-risk myeloma.

d) Imaging investigations at diagnosis.

e) The local and regional service provision needed for adequate disease management and equity of access.

f) Primary disease management for newly diagnosed myeloma, including autologous stem cell transplantation.

g) The management of primary plasma cell leukaemia.

h) The management of asymptomatic myeloma.

i) The most effective salvage therapies for relapsed and/or refractory myeloma.

j) The role of allogeneic stem cell transplantation in both primary treatment and treatment of relapsed myeloma (salvage therapy).

k) The management of neuropathy in patients with myeloma (excluding pharmacological management of neuropathic pain).

l) The prevention and management of bone disease, including spinal bone disease, for patients with myeloma.

m) The prevention of thrombosis for patients with myeloma.

n) Prophylaxis of infection for patients with myeloma.

o) The management of renal disease for patients with myeloma.

p) Follow-up for patients with myeloma.

q) The management of treatment-related fatigue for patients with myeloma.

4.3.2 Issues that will not be covered

a) The management of MGUS.

b) The role of consolidation and maintenance therapy after primary management of myeloma. Consolidation and maintenance therapy are the subject of two NICE technology appraisals that are in development. The guideline will cross refer to these, in line with NICE process, and therefore will not be investigating this issue.

4.4 Main outcomes

a) Overall survival.

b) Disease-related morbidity.

c) Disease-related mortality.

d) Treatment-related morbidity.

e) Treatment-related mortality.

f) Progression-free survival.

g) Time to next treatment.

h) Treatment response rate.

i) Renal outcome.

j) Psychological wellbeing.

k) Diagnostic accuracy.

l) Number and length of admissions to hospital after diagnosis.

m) Health-related quality of life.

n) Patient-reported outcomes.

4.5 Review questions

Review questions guide a systematic review of the literature. They address only the key issues covered in the scope, and usually relate to interventions, diagnosis, prognosis, service delivery or patient experience. Please note that these review questions are draft versions and will be finalised with the Guideline Development Group.

Numbers in square brackets refer to the key issues listed in section 4.3.1.

a) What are the specific information and support needs of patients with myeloma and their families and carers

   i. at diagnosis and treatment planning

   ii. during treatment

   iii. during follow-up

   iv. at the end of life? [4.3.1a]

b) What is the most effective way to deliver diagnostic services for suspected myeloma? [4.3.1b]

c) What is the optimal laboratory testing strategy for suspected myeloma? [4.3.1c]

d) Can investigations done at the diagnosis of myeloma, including trephine biopsy, immunophenotyping and cytogenetic and molecular genetic tests accurately predict treatment outcomes (for example, can they identify patients with a poor prognosis for whom an alternative treatment approach may be preferable)? [4.3.1 c]

e) What is the optimal imaging strategy (including skeletal survey and spinal MRI) for patients with newly diagnosed myeloma? [4.3.1d]

f) Should MRI results guide treatment decisions in patients with newly diagnosed asymptomatic myeloma? [4.3.1d]

g) What is the optimal configuration of local and regional services for radiological imaging, the management of renal disease, spinal disease and bone disease, and palliative care for patients with myeloma? [4.3.1e]

h) Which patients with myeloma should be considered for autologous stem cell transplantation?[4.3.1f]

i) What are the most effective primary treatments for patients with primary plasma cell leukaemia? [4.3.1g]

j) What are the most effective primary treatments (including observation) for patients with asymptomatic myeloma? [4.3.1h]

k) What are the most effective post-third line systemic therapy regimens for patients with relapsed or refractory myeloma? [4.3.1i]

l) In which patients with relapsed or refractory myeloma is a second transplantation more effective than other therapy? [4.3.1i]

m) Which patients with myeloma should be considered for allogeneic stem cell transplantation? [4.3.1j]

n) What is the most effective way to manage neuropathy in patients with myeloma (excluding pharmacological management of neuropathic pain)? [4.3.1k]

o) What is the most effective method of preventing bone disease in patients with myeloma? [4.3.1l]

p) What is the most effective treatment for non-spinal bone disease in patients with myeloma (including external beam radiotherapy and surgical intervention)? [4.3.1l]

q) What is the most effective treatment for spinal bone disease in patients with myeloma (including external beam radiotherapy and surgical intervention)? [4.3.1l]

r) What is the most effective method for prevention of thrombosis in patients with myeloma? [4.3.1m]

s) What is the most effective prophylactic strategy for infection in patients with myeloma (including immunoglobulin, antibiotics, growth factors and vaccinations)? [4.3.1n]

t) What is the optimal management of renal disease in patients with myeloma? [4.3.1o]

u) What is the optimal follow-up protocol for patients with myeloma (including duration, frequency, investigations and onward referral)? [4.3.1p]

v) Which interventions are most effective in reducing fatigue in patients being treated for myeloma? [4.3.1q]

4.6 Economic aspects

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative interventions. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and the costs considered will usually be only from an NHS and personal social services (PSS) perspective. Further detail on the methods can be found in The guidelines manual.

4.7 Status

4.7.1 Scope

This is the final scope.

4.7.2 Timing

The development of the guideline recommendations will begin in March 2014.

5 Related NICE guidance

5.1 Published guidance

5.1.1 NICE guidance to be updated

This guideline will not update or replace any NICE guidance.

5.1.2 NICE guidance to be incorporated

This guideline will incorporate the following NICE guidance:

- Bortezomib and thalidomide for the first-line treatment of multiple myeloma. NICE technology appraisal guidance 228 (2011). [Incorporation into the guideline is subject to a NICE technology appraisal review proposal.]
- Lenalidomide for the treatment of multiple myeloma in people who have received at least one prior therapy. NICE technology appraisal guidance 171 (2009). [Incorporation into the guideline is subject to a NICE technology appraisal review proposal.]
- Bortezomib monotherapy for relapsed multiple myeloma. NICE technology appraisal guidance 129 (2007). [Incorporation into the guideline is subject to a NICE technology appraisal review proposal.]

5.1.3 Other related NICE guidance

- Acute kidney injury. NICE clinical guideline 169 (2013).
- Neuropathic pain - pharmacological management. NICE clinical guideline 173 (2013).
- Denosumab for the prevention of skeletal-related events in adults with bone metastases from solid tumours. NICE technology appraisal guidance 265 (2012).
- Neutropenic sepsis. NICE clinical guideline 151 (2012).
- Patient experience in adult NHS services. NICE clinical guidance 138 (2012).
- Anaemia management in people with chronic kidney disease. NICE clinical guideline 114 (2011).
- Medicines adherence. NICE clinical guideline 76 (2009).
- Metastatic spinal cord compression. NICE clinical guideline 75 (2008).

- Epoetin alfa, epoetin beta and darbepoetin alfa for cancer treatment-induced anaemia. NICE technology appraisal guidance 142 (2008).
- Balloon kyphoplasty for vertebral compression fractures. NICE interventional procedure guidance 166 (2006).
- Improving supportive and palliative care for adults with cancer. NICE cancer service guidance (2004).
- Percutaneous vertebroplasty. NICE interventional procedure guidance 12 (2003).

5.2 Guidance under development

NICE is currently developing the following related guidance (details available from the NICE website):

- Bortezomib for consolidation therapy after autologous stem cell transplantation for the treatment of multiple myeloma. Publication date TBC
- Care of the dying adult. Publication date TBC.
- Bortezomib for induction therapy prior to high dose chemotherapy and autologous stem cell transplantation for the treatment of multiple myeloma. NICE technology appraisal guidance. Publication expected May 2014.
- Lenalidomide for the treatment of multiple myeloma in people who have received at least one prior therapy with bortezomib (partial review of TA171). NICE technology appraisal guidance. Publication expected July 2014.
- Pomalidomide for treating relapsed and refractory multiple myeloma previously treated with both lenalidomide and bortezomib. NICE technology appraisal guidance. Publication expected February 2015.
- Referral for suspected cancer. NICE clinical guideline. Publication expected May 2015.

5.3 Related quality standard

End of life care for adults. NICE quality standard 13 (2011).

6 Further information

Information on the guideline development process is provided in the following documents, available from the NICE website:

- How NICE clinical guidelines are developed: an overview for stakeholders the public and the NHS: 5th edition
- The guidelines manual.

Information on the progress of the guideline will also be available from the NICE website.