The Association for Clinical Biochemistry & Laboratory Medicine

*Better Science, Better Testing, Better Care*

# Summary of NICE Guidelines

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| Title | NG35: Myeloma: diagnosis and management |
| NICE Reference | NG35 |
| Date of Review: | October 2019 |
| Date of Publication | February 2016 (reviewed Oct 2018) |
| Summary of Guidance (Max 250 words) | **Initial Investigations**<br>Laboratory investigations for suspected multiple myeloma (MM) include serum electrophoresis (sEP) and serum free light chain (s.flc). Only if sEP is abnormal should the sample undergo immunofixation. None of the screening tools for MM should be used in isolation to rule out myeloma; diagnosis should be confirmed through bone marrow biopsy to determine plasma cell percentage and phenotype. Whole body MRI should be considered as first line imaging in all cases of suspected myeloma to assess related bone disease.<br><br>**Assessing prognosis and initiating treatment**<br>Fluorescence in-situ hybridisation (FISH), immunophenotyping and immunohistochemistry should be used to identify plasma cell phenotype and adverse risk abnormalities. The same sample should be used for all diagnostic and prognostic tests. First-line treatment for confirmed cases is a combination of bortezomib, dexamethasone and/or thalidomide (TA311) before high-dose chemotherapy and autologous stem cell transplant. However, where the two latter options are inappropriate thalidomide with an alkylating agent and a corticosteroid is recommended (TA228).<br><br>**Managing complications**<br>Fracture risk should be assessed in new patients using DEXA scans; zoledronic acid can be used to help prevent bone disease. Seasonal vaccinations are offered to MM patients and IVIg should be considered for patients with recurring infections or hypogammaglobuminaemia. Thromboprophylaxis should be considered if treatment consists of immunomodulatory drugs. Fatigue secondary to anaemia can be alleviated by erythropoietin analogues (after excluding other causes).<br><br>**Monitoring**<br>Smouldering myeloma patients and those who have just completed treatment should be monitored every 3 months using the following tests: full blood count, renal function, bone profile, serum immunoglobulins and sEP with s.flc analysis, if appropriate. Patients with a monoclonal gammopathy of undetermined significance (MGUS) have no defined follow-up time in this particular guidance. |
| Impact on Lab (See below) | ■ Important |

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| Lab professionals to be made aware | ✓ Laboratory Manager<br>✓ Chemical Pathologist<br>✓ Clinical Scientist |
| Please detail the impact of this guideline (Max 150 words) | Healthcare scientists should be aware that screening for myeloma cases will increase the requests for s.flc analysis based on this guidance. Requesting physicians should be educated on the impact of screening patients for the non-specific symptoms of MM i.e. follow up if MGUS or smouldering myeloma is identified. This will ultimately increase the workload of laboratories in the long term. Laboratories should work with primary care and specialist services to agree local screening and care pathways for patients with suspected MM.<br>s.flc analysis is relatively expensive; using this test as part of the screening panel may increase the initial cost of screening for MM.<br>Laboratory staff should be aware that 3 months is the follow-up time suggested for patients after completing treatment and those with smouldering myeloma. |

**Impact on Lab**

- **None**: This NICE guideline has no impact on the provision of laboratory services
- **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
- **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

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