IMAGING GUIDELINES FOR MEDICAL NECESSITY

Eviti Imaging: Multiple Myeloma

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Please note the following:

For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Please refer to the CMS website at http://www.cms.gov for additional information.

For Medicaid members/enrollees, circumstances when state Medicaid coverage provisions conflict with the coverage provisions within this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Multiple Myeloma Imaging

Discussion

This imaging guideline provides a standardized framework for the use of diagnostic and surveillance imaging in the management of common adult malignancies, specifically multiple myeloma. The goal is to ensure timely, evidence-based imaging that supports accurate staging, treatment planning, response assessment, and post-treatment surveillance.

Guiding Principles

- Follow evidence-based practices from major guidelines (e.g., NCCN, ESMO, ACR Appropriateness Criteria)
- Ensure imaging aligns with the clinical context and stage of disease
- Minimization of unnecessary radiation exposure
- Promote timely and cost-effective imaging utilization
- Incorporate multidisciplinary collaboration in imaging decisions

Imaging Guidelines

This guideline applies to the following patients:

1. At least 18 years of age with confirmed or suspected diagnoses of multiple myeloma; AND
2. All phases of oncologic care, including one of the following:
   a) Initial staging
   b) Treatment response evaluation
   c) Post-treatment surveillance
   d) Detection of recurrence or progression; AND
3. All imaging modalities used in oncology care, including but not limited to the following:
   a) Computed tomography (CT) (neck, chest, abdomen, pelvis, neck, or site-specific)
   b) Magnetic resonance imaging (MRI) (including site-specific protocols such as pelvis MRI, brain MRI, liver MRI)
   c) Fluorodeoxyglucose positron emission tomography/CT (FDG-PET/CT)
   d) PET/MRI
   e) Somatostatin receptor PET/CT (SSTR-PET/CT)
   f) Nuclear medicine (e.g., bone scan, PSMA PET)
   g) Single photon emission computed tomography/CT (SPECT/CT) (e.g., octreotide SPECT/CT for neuroendocrine tumors)

Notes:

1. The concurrent utilization of multiple advanced imaging modalities—such as PET/CT and MRI—is not routinely warranted and should be considered only when each modality is expected to provide distinct and clinically relevant information that will directly impact patient management. The selection of the most appropriate imaging study should be individualized, taking into account tumor type, clinical presentation, prior imaging, and other patient-specific factors. Imaging requests will be evaluated on a case-by-case basis to ensure clinical necessity, appropriateness, and the potential to influence therapeutic decision-making.

2. When PET imaging is clinically indicated, the appropriate radiotracer should be selected based on tumor type and clinical scenario.

Multiple Myeloma Imaging

Imaging in multiple myeloma plays an essential role in diagnosis, response assessment, and detection of skeletal or extramedullary disease. Historically reliant on skeletal surveys, modern evaluation now depends on whole-body low-dose CT (WBLDCT), FDG-PET/CT, and whole-body MRI, which offer vastly superior sensitivity for lytic lesions and soft-tissue involvement.
At diagnosis, imaging defines disease burden, guides biopsy site selection, and helps differentiate smoldering from symptomatic myeloma. During treatment, serial functional imaging provides an objective marker of metabolic remission or early relapse.
Appropriate modality selection should balance diagnostic value, radiation exposure, and availability, aligning with NCCN and IMWG recommendations for comprehensive skeletal assessment.

Multiple Myeloma Recommendations			
Clinical Scenario	**Recommended Modality**	**Frequency/Timing**	**Purpose/Notes**
Initial Diagnosis/Staging	PET/CT Whole-body low-dose CT (WBLDCT) Whole-body MRI	Once at baseline	PET/CT (preferred), detect lytic bone lesions and extramedullary disease, WBLDCT is more sensitive than plain skeletal survey, for solitary plasmacytoma FDG-PET/CT is preferred for extraosseous disease, while whole-body MRI is recommended for osseous plasmacytoma Whole body MRI is also useful if PET or WBLDCT is negative to rule out smoldering multiple myeloma (SMM)
Suspected Relapse or Progression	FDG-PET/CT	As indicated by change in M-protein,	PET/CT identifies metabolically active disease, new skeletal

(Biochemical or Clinical)	Whole-body low-dose CT Whole-body MRI	FLC, or new symptoms	or extramedullary sites If CT unavailable or equivocal
Response Assessment Post-Therapy (Auto-SCT or New Regimen)	PET/CT Whole-body low-dose CT Whole-body MRI	3–6 months post-treatment or as clinically indicated	Use same modality used at diagnosis If CT unavailable or equivocal
Routine Surveillance in Asymptomatic Remission	Not routinely indicated		NCCN discourages routine imaging without clinical/biochemical relapse
Surveillance Solitary Plasmacytoma and Smoldering Multiple Myeloma	PET/CT Whole-body low-dose CT Whole-body MRI	Annually for 5 years (SP) Annually smoldering multiple myeloma (SMM)	PET/CT (preferred) Use same modality used at diagnosis If CT unavailable or equivocal

Notes:

1. NCCN recommends that advanced whole-body imaging (FDG-PET/CT, low-dose CT, or whole-body MRI) should be performed as clinically indicated rather than at fixed scheduled intervals. Surveillance imaging is guided by changes in symptoms, laboratory parameters, and clinical concern for disease progression or residual lesions, rather than routine periodic scanning.
2. PET/CT preferred for relapse or metabolic response assessment.
3. Routine surveillance discouraged without clinical or biochemical relapses.
4. Plain skeletal survey - also an option in certain circumstances.[1]

Revision and Review History

No.	Description	Date
1	Original Effective Date:	1/1/2026
2	Policy Annual Review Dates:	
3	Department Owner:	Medical Affairs
4	NH Advisory Committee Approval Dates:	
5	Revision Changes:	

References

[1] National Comprehensive Cancer Network Guidelines: Multiple Myeloma. https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed December 17, 2025.