IMAGING GUIDELINES FOR MEDICAL NECESSITY

Eviti Imaging: Testicular Cancer

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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.

Testicular Cancer 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 testicular cancer type. 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:

At least 18 years of age with confirmed or suspected diagnoses of testicular cancer; AND

1. 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
2. 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.

Testicular Cancer Imaging

Imaging in testicular cancer is critical for initial staging, treatment planning, and surveillance. The majority of cases are germ cell tumors, classified as seminoma or nonseminomatous germ cell tumors (NSGCT). Cross-sectional imaging allows accurate assessment of retroperitoneal lymph nodes, distant metastases (lung, liver, brain), and detection of relapse during follow-up. NCCN guidelines emphasize minimizing radiation exposure in this generally young population by balancing imaging frequency and modality with relapse risk, histology, and treatment phase.

Testicular Cancer Recommendations			
Clinical Scenario	**Recommended Modality**	**Frequency/Timing**	**Purpose/Notes**
Initial Diagnosis/Staging	Scrotal ultrasound (bilateral) CT abdomen/pelvis Chest x-ray or CT chest (CT if indicated based on symptoms or abnormal chest x ray or abnormal CT abdomen and pelvis) MRI brain; based on symptoms, extensive lung metastases, very high B-HCG (>5,000 IU/L)	At diagnosis	Ultrasound confirms intratesticular lesion and guides orchiectomy. CT defines retroperitoneal nodal involvement. PET/CT is not recommended for initial staging
Treatment Response Assessment	CT abdomen/pelvis as clinically indicated CT chest or Xray as indicated PET/CT scan (seminoma with residual mass >3cm)	Mid-therapy or at completion of 4–6 weeks, and after completion of chemotherapy	Used to assess response or progression; avoid over-imaging; use clinical and tumor-marker correlation (AFP, β-hCG, LDH)
Surveillance – Seminoma, Stage I	CT abdomen/pelvis or MRI	Every 4–6 months × 1 year, then every 6	First 2–3 years highest risk for

(Post-Orchiectomy Only)	Chest x-ray	months x 1 year, then every 6-12 months x 1 year, then every 12-24 months x 2 years	relapse; frequency decreases over time
Seminoma, Stage I (Post-Chemotherapy)	CT abdomen/pelvis or MRI Chest x-ray	Annually × 3 years	
Seminoma, Stage IIA and Non-Bulky IIB (Post Chemotherapy or Radiation)	CT abdomen/pelvis or MRI Chest x-ray	At 3 months, then 9 or 12 months, then annually x 2 years Every 6 months x 2 years	
Seminoma, Stage II (Post-RPLND without Chemotherapy)	CT abdomen/pelvis or MRI Chest x-ray	Every 4 months x 1 year, then every 6 months x 1 year, then annually for 3 years	
Seminoma, Stage II (Post-RPLND with Chemotherapy)	CT abdomen/pelvis Or MRI Chest x-ray	Every 6 months x 1 year, then annually x 1 year	
Seminoma, Stage IIB, IIC, III (Post - RPLND with Chemotherapy)	CT abdomen/pelvis or MRI Chest x-ray	Every 4 months x 1 year, then every 6 months x 1 year, then annually x 2 years Every 4 months x 1 year, then every 6 months x 1 year, then annually x 3 years	
Surveillance - NSGCT, Stage I (No Risk Factors)	CT abdomen/pelvis or MRI Chest x-ray	Every 4–6 months x 1 year, then every 6 months x 1 year, then every 6 months x 1 year, then every 12-24 months x 2 years	Tailor to pathologic risk factors (e.g., LVI); tumor markers guide imaging need and timing
Surveillance – NSGCT, Stage I (Active Surveillance)	CT abdomen/pelvis or MRI	Every 4 months × 1 year, then every 4-6 months x 1 year, then every 6 months	Tailor to pathologic risk factors (e.g., LVI); tumor markers

	Chest x-ray	x 1 year, then annually x 1 year At months 4 and 12, then annually for up to 2 years	guide imaging need and timing.
Surveillance – NSGCT, Stage IA/B After Adjuvant BEP or Primary Retroperitoneal Lymph Node Dissection	CT abdomen/pelvis or MRI Chest x-ray	Annually x 2 years Every 4-6 months x 1 year, then annually x 1 year	
Surveillance – NSGCT, Stage II-III After Chemotherapy +/- Surgery	CT abdomen/pelvis or MRI Chest x-ray	Every 4-6 months x 1 year, then every 6-12 months x 1 year, then annually x 1 year 3 Chest x-ray can be discontinued after year 2	
Surveillance – NSGCT, Stage IIA/B/C after RPLND and Adjuvant Chemotherapy	CT abdomen/pelvis or MRI Chest x-ray	At 4 months after RPLND Every 6 months x 1 year, then annually x 4 years	
Surveillance – NSGCT, Stage IIA/B/C After RPLND and NO Adjuvant Chemotherapy	CT abdomen/pelvis or MRI Chest x-ray	At 4 months after RPLND, then annually x 1 year Every 2-4 months x 1 year, then every 3-6 months x 1 year, then annually x 3 years	

Suspected Relapse	CT chest/abdomen/pelvis or MRI Brain MRI if neurological symptoms or high β-hCG	As indicated	PET/CT optional for seminoma with equivocal findings; confirm relapse with markers and histology when feasible

Notes:

1. PET/CT: not routinely indicated except for residual seminoma masses >3 cm post-chemotherapy.
2. MRI: may substitute for CT abdomen/pelvis if contraindication to IV contrast or to reduce radiation exposure in long-term surveillance.
3. Radiation reduction: for low-risk patients on long-term surveillance; NCCN allows extending CT intervals and considering MRI or limited-field imaging.
4. Serum tumor markers (AFP, β-hCG, LDH) must always be integrated with imaging results for accurate interpretation.
5. Imaging should be performed with 4 weeks prior to chemotherapy, retroperitoneal lymph node dissection, or radiation therapy, even if prior scans exist.[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: Testicular Cancer. https://www.nccn.org/professionals/physician_gls/pdf/testicular.pdf. Accessed December 15, 2025.