IMAGING GUIDELINES FOR MEDICAL NECESSITY

Eviti Imaging: Hepatocellular 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.

Hepatocellular 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 hepatocellular cancer (HCC). 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 hepatocellular cancer; 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.

Hepatocellular Cancer Imaging Recommendations

Imaging in hepatocellular cancer underpins detection, staging, treatment planning (resection, ablation, embolization, transplant), and surveillance. For patients at risk, ultrasound-based surveillance every 6 months is standard; indeterminate or suspicious findings trigger multiphasic (arterial/portal venous/delayed) CT or MRI using LI-RADS criteria. PET/CT is not routine for staging or surveillance in hepatocellular cancer. Treatment response after locoregional therapy should use viable-tumor enhancement–based criteria (mRECIST/LI-RADS TR) rather than size alone.

Hepatocellular Cancer Imaging Recommendations			
Clinical Scenario	**Recommended Modality**	**Frequency/Timing**	**Purpose/Notes**
Screening (for Patients with Cirrhosis of Any Cause or Chronic Hepatitis B)	Ultrasound or CT/MRI (if US fails to detect nodules/poor visualization)	Every 6 months (or 3-6 months if US nodule < 10 mm)	Standard first-line surveillance per AASLD/ESMO; consider cross-sectional imaging only if US is suboptimal or unavailable. Early cancer detection
Abnormal Screening	Multiphasic CT or MRI of liver Contrast-enhanced US	As needed	Confirms if definitely HCC or benign (individual workup may include imaging or biopsy if not definitely HCC/ benign) MRI Preferred At select centers with relevant expertise

Initial Diagnosis & Staging (once HCC confirmed)	CT chest CT abdomen/pelvis or MRI abdomen/pelvis Bone scan PET/CT (when clinically indicated due to inconclusive or inadequate findings on conventional imaging)	At diagnosis (once HCC confirmed)	Define number/size, vascular invasion, extrahepatic disease; CT chest for lung metastases. PET/CT not routine - if not previously done or needs updating If skeletal symptoms
Treatment Response Monitoring	Multiphasic CT or MRI of liver CT or MRI pelvis CT chest	Every 3 months during active therapy non-curative	
Surveillance	Multiphasic CT or MRI of liver CT or MRI pelvis CT chest	Every 3-6 months for 2 years then every 6 months	Early detection of recurrence
Suspected Recurrence	Multiphasic CT or	As indicated	Choose modality based on site of concern (liver vs.

	MRI of liver CT or MRI pelvis CT chest		extrahepatic) - bone scan or MRI if symptomatic; PET/CT reserved for equivocal cases.

Notes:

1. LI-RADS standardizes reporting and follow-up of at-risk patients and diagnostic CT/MRI findings. Use LI-RADS categories for workup and LI-RADS Treatment Response (TR) after therapy.
2. PET/CT: not recommended for routine staging/surveillance; limited sensitivity for well-differentiated HCC—reserve for atypical/equivocal cases or clinical trials.
3. Prefer multiphasic MRI when CT contrast is contraindicated or for better lesion characterization; either CT or MRI is acceptable for diagnosis per AASLD.
4. Use enhancement-based criteria (mRECIST) for post-locoregional response rather than RECIST size alone.[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: Hepatocellular Cancer. https://www.nccn.org/professionals/physician_gls/pdf/hcc.pdf. Accessed December 12, 2025.