

PET-CT/PET Diagnostic Standards Guidelines

DEPARTMENT: Utilization Management Physician Practice Guidelines

EFFECTIVE DATE: 09/05

DATE LAST REVIEWED: 09/21

SOURCES: American College of Radiology Appropriateness Criteria
 Centers for Medicare & Medicaid Services
 PET Imaging Institute of South Florida
 Oncological Indications for PET-CT
<https://radiopaedia.org/articles/pet-ct-indications-1>
<https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/Downloads/R2932CP.pdf>

RECOMMENDED GUIDELINES:

- 1) Investigation of Solitary Pulmonary Nodule (SPN)
- 2) The following malignancies can be investigated with PET-CT after tissue diagnosis:

New CMS Coverage for oncologic FDG PET		
FDG PET for Cancers Tumor Type	Initial Treatment Strategy (formerly "diagnosis" and "staging")	Subsequent Treatment Strategy (formerly "restaging" and "monitoring response to treatment")
Colorectal	Cover	Cover
Esophagus	Cover	Cover
Head and Neck (not thyroid, CNS)	Cover	Cover
Lymphoma	Cover	Cover
Non-small cell lung	Cover	Cover
Ovary	Cover	Cover
Brain	Cover	Cover
Cervix	Cover with exceptions *	Cover
Small cell lung	Cover	Cover
Soft tissue sarcoma	Cover	Cover
Pancreas	Cover	Cover
Testes	Cover	Cover

Prostate	Non-Cover	Cover
Thyroid	Cover	Cover
Breast (male and female)	Cover with exceptions *	Cover
Melanoma	Cover with exceptions *	Cover
All other solid tumors	Cover	Cover
Myeloma	Cover	Cover
All other cancers not listed	Cover	Cover

***Exceptions:**

- a) **Cervix** - Nationally non-covered for the initial diagnosis of cervical cancer related to initial anti-tumor treatment strategy. All other indications of initial anti-tumor treatment strategy for cervical cancer are nationally covered.
 - b) **Breast** – Nationally non-covered for initial diagnosis and/or staging of axillary lymph nodes. Nationally covered for initial staging of metastatic disease. All other indications for initial anti-tumor treatment strategy for breast cancer are nationally covered.
 - c) **Melanoma** – Nationally non-covered for initial staging of regional lymph nodes. All other indications for initial anti-tumor treatment strategy for melanoma are nationally covered.
- 3) Non-Oncological Indications for PET:
- a) Pre-surgical evaluation of refractory seizures
 - b) Differential diagnosis of Alzheimer’s Disease vs. Frontotemporal Dementia
 - c) Myocardial Viability - As a primary or initial diagnostic study prior to re-vascularization or following an inconclusive SPECT. SPECT may not be used following an inconclusive PET scan.
 - d) Myocardial Perfusion PET scans performed at rest or stress (exercise or pharmacological) used for noninvasive imaging of the perfusion of the heart for the diagnosis and management of patients with known or suspected coronary artery disease using the FDA-approved radiopharmaceutical Ammonia N-13 or Rubidium 82 (Rb 82).
- 4) Problem solving applications
- a) Evaluation of suspected recurrence in patients with equivocal conventional imaging
 - b) Assess residual disease in patients with treated differentiated thyroid carcinoma and treated medullary thyroid carcinoma with negative/equivocal conventional imaging
 - c) Malignant transformation of plexiform neurofibroma
 - d) differentiate between radiation-induced necrosis and tumor recurrence (e.g., primary CNS malignancy)
 - i) spectrometry MRI usually performed.
 - e) Pre-operative evaluation prior to melanoma lymph node resection