



FEP Medical Policy Manual

FEP 6.01.64 Oncologic Applications of Positron Emission Tomography Scanning (Hematologic)

Annual Effective Policy Date: April 1, 2026

Original Policy Date: September 2024

Related Policies:

- 6.01.06 - Miscellaneous (Noncardiac, Nononcologic) Applications of Fluorine 18 Fluorodeoxyglucose Positron Emission Tomography
- 6.01.20 - Cardiac Applications of Positron Emission Tomography Scanning
- 6.01.51 - Interim Positron Emission Tomography Scanning in Oncology to Detect Early Response During Treatment
- 6.01.62 - Oncologic Applications of Positron Emission Tomography Scanning (Breast and Gynecologic)
- 6.01.63 - Oncologic Applications of Positron Emission Tomography Scanning (Bone Sarcoma and Soft Tissue Sarcoma)
- 6.01.64 - Oncologic Applications of Positron Emission Tomography Scanning (Hematologic)
- 6.01.65 - Oncologic Applications of Positron Emission Tomography Scanning (Lung)
- 6.01.66 - Oncologic Applications of Positron Emission Tomography Scanning (Thyroid, Neuroendocrine, Head and Neck)
- 6.01.67 - Oncologic Applications of Positron Emission Tomography Scanning (Brain, Melanoma, Unknown Primary)

Oncologic Applications of Positron Emission Tomography Scanning (Hematologic)

Description

Description

Positron emission tomography (PET) is a nuclear imaging technique that uses positron-emitting tracers attached to molecules like glucose or water to create 3D images of metabolic activity. In cancer care, tracer choice depends on tumor type and cancer stage under evaluation.

OBJECTIVE

The objective of this evidence review is to examine whether the use of positron emission tomography for the diagnosis, staging and restaging, and/or surveillance improves the net health outcome in individuals with hematologic cancers.

POLICY STATEMENT

Hodgkin or non-Hodgkin Lymphoma

FDG-PET or FDG-PET/CT scanning may be considered **medically necessary** as a technique for staging lymphoma either during initial staging or for restaging at follow-up.

Multiple Myeloma

FDG-PET or FDG-PET/CT scanning may be considered **medically necessary** in the staging or restaging of multiple myeloma, particularly if the skeletal survey is negative.

Cancer Surveillance

FDG-PET or FDG-PET/CT scanning is considered **investigational** when used as a surveillance tool for individuals with cancer or with a history of cancer. A scan is considered surveillance if performed more than 6 months after completion of cancer therapy (12 months for lymphoma) in individuals without objective signs or symptoms suggestive of cancer recurrence (see Policy Guidelines section).

POLICY GUIDELINES

Use of PET scanning for surveillance as described in the policy statement and policy rationale refers to the use of PET to detect disease in asymptomatic individuals at various intervals. This is not the same as the use of PET for detecting recurrent disease in symptomatic individuals; these applications of PET are considered within tumor-specific categories in the policy statements.

BENEFIT APPLICATION

Experimental or investigational procedures, treatments, drugs, or devices are not covered (See General Exclusion Section of brochure).

FDA REGULATORY STATUS

In 2000, Fluorine 18 fluorodeoxyglucose (FDG) was approved as a radiotracer for use in positron emission tomography (PET) imaging. It is used for evaluating, staging, and monitoring treatment for cancers such as non-small cell lung cancer, lymphomas, colorectal carcinoma, malignant melanoma, esophageal carcinoma, head and neck cancer, thyroid carcinoma, and breast cancer. As a glucose analogue it accumulates in most tumors in a greater amount than it does in normal tissue.

RATIONALE

Summary of Evidence

Hodgkin and Non-Hodgkin Lymphoma

For individuals who have suspected or diagnosed Hodgkin and non-Hodgkin lymphoma in need of staging or restaging information who receive fluorine 18 fluorodeoxyglucose (FDG)-positron emission tomography (PET) or FDG-PET/computed tomography (CT), the evidence includes a TEC Assessment, several meta-analyses, and a randomized controlled trial. Relevant outcome is test validity. Both PET and PET/CT have been found to provide useful information in the management of Hodgkin and non-Hodgkin lymphoma. The Deauville 5-point scale was developed based on PET results and can be used for staging and treatment response for individuals with lymphoma. Clinical guidelines include PET/CT to inform management decisions that may offer clinical benefit. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who are asymptomatic after completing Hodgkin lymphoma treatment who receive FDG-PET or FDG-PET/CT, there is no evidence. Relevant outcome is test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who are asymptomatic after completing non-Hodgkin lymphoma treatment who receive FDG-PET or FDG-PET/CT, there is no evidence. Relevant outcome is test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Multiple Myeloma

For individuals who have suspected or diagnosed multiple myeloma in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes systematic reviews and a prospective, comparative study. Relevant outcome is test validity. The meta-analyses reported high sensitivity in detecting extramedullary lesions in individuals with multiple myeloma. The sensitivity of FDG-PET was greater than whole body x-ray in a meta-analysis and was similar to whole-body magnetic resonance imaging (MRI), with MRI having a higher sensitivity for detecting skull and spine bone lesions, in a prospective evaluation. Clinical guidelines include PET/CT on the list of imaging techniques that may be useful for initial workup, as well as follow-up and surveillance as indicated. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who are asymptomatic after completing multiple myeloma treatment who receive FDG-PET or FDG-PET/CT, there is no evidence. Relevant outcome is test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

Current National Comprehensive Cancer Network, American College of Radiology, and other relevant U.S.-based guidelines are summarized in each section of the Rationale.

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

The Medicare coverage policy on positron emission tomography scans, effective for claims with dates of service on and after June 11, 2013, is summarized in Table 1.²¹

Table 1. National FDG PET Coverage for Oncologic Conditions

FDG PET for Cancers by Tumor Type	Initial Treatment Strategy (formerly "diagnosis" & "staging")	Subsequent Treatment Strategy (formerly "restaging" & "monitoring response to treatment")
Colorectal	Cover	Cover
Esophagus	Cover	Cover
Head and Neck (not thyroid, CNS)	Cover	Cover

The policies contained in the FEP Medical Policy Manual are developed to assist in administering contractual benefits and do not constitute medical advice. They are not intended to replace or substitute for the independent medical judgment of a practitioner or other health care professional in the treatment of an individual member. The Blue Cross and Blue Shield Association does not intend by the FEP Medical Policy Manual, or by any particular medical policy, to recommend, advocate, encourage or discourage any particular medical technologies. Medical decisions relative to medical technologies are to be made strictly by members/patients in consultation with their health care providers. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that the Blue Cross and Blue Shield Service Benefit Plan covers (or pays for) this service or supply for a particular member.

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

CNS: central nervous system; FDG: fluorodeoxyglucose; PET: positron emission tomography.

*Cervix: Nationally non-covered for the initial diagnosis of cervical cancer related to initial anti-tumor treatment strategy. All other indications for initial anti-tumor treatment strategy for cervical cancer are nationally covered.

*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.

*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.

REFERENCES

1. Adams HJ, Kwee TC, de Keizer B, et al. Systematic review and meta-analysis on the diagnostic performance of FDG-PET/CT in detecting bone marrow involvement in newly diagnosed Hodgkin lymphoma: is bone marrow biopsy still necessary?. *Ann Oncol.* May 2014; 25(5): 921-7. PMID 24351400
2. Adams HJ, Kwee TC, de Keizer B, et al. FDG PET/CT for the detection of bone marrow involvement in diffuse large B-cell lymphoma: systematic review and meta-analysis. *Eur J Nucl Med Mol Imaging.* Mar 2014; 41(3): 565-74. PMID 24281821
3. Park HY, Suh CH, Huang RY, et al. Diagnostic Yield of Body CT and Whole-Body FDG PET/CT for Initial Systemic Staging in Patients With Suspected Primary CNS Lymphoma: A Systematic Review and Meta-Analysis. *AJR Am J Roentgenol.* May 2021; 216(5): 1172-1182. PMID 32812800
4. Adams HJA, Kwee TC. Proportion of false-positive lesions at interim and end-of-treatment FDG-PET in lymphoma as determined by histology: Systematic review and meta-analysis. *Eur J Radiol.* Nov 2016; 85(11): 1963-1970. PMID 27776647
5. Adams HJ, Nievelstein RA, Kwee TC. Outcome of Hodgkin Lymphoma Patients With a Posttreatment 18F-Fluoro-2-Deoxy-d-Glucose Positron Emission Tomography (FDG-PET)-Negative Residual Mass: Systematic Review and Meta-analysis. *Pediatr Hematol Oncol.* 2015; 32(8): 515-24. PMID 26561044
6. Adams HJ, Kwee TC. Pretransplant FDG-PET in aggressive non-Hodgkin lymphoma: systematic review and meta-analysis. *Eur J Haematol.* Apr 2017; 98(4): 337-347. PMID 27943422
7. Adams HJ, Kwee TC. Prognostic value of pretransplant FDG-PET in refractory/relapsed Hodgkin lymphoma treated with autologous stem cell transplantation: systematic review and meta-analysis. *Ann Hematol.* Apr 2016; 95(5): 695-706. PMID 26931115
8. Zhu D, Xu XL, Fang C, et al. Prognostic value of interim (18)F-FDG-PET in diffuse large B cell lymphoma treated with rituximab-based immunotherapy: a systematic review and meta-analysis. *Int J Clin Exp Med.* 2015; 8(9): 15340-50. PMID 26629023

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9. Borchmann P, Goergen H, Kobe C, et al. PET-guided treatment in patients with advanced-stage Hodgkin's lymphoma (HD18): final results of an open-label, international, randomised phase 3 trial by the German Hodgkin Study Group. *Lancet*. Dec 23 2017; 390(10114): 2790-2802. PMID 29061295
10. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Hodgkin Lymphoma. Version 2.2025. https://www.nccn.org/professionals/physician_gls/pdf/hodgkins.pdf. Accessed September 3, 2025.
11. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma. Version 3.2025. https://www.nccn.org/professionals/physician_gls/pdf/cll.pdf. Accessed September 2, 2025.
12. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: B-Cell Lymphomas. Version 3.2025. https://www.nccn.org/professionals/physician_gls/pdf/b-cell.pdf. Accessed September 1, 2025.
13. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Primary Cutaneous Lymphomas. Version 3.2025. https://www.nccn.org/professionals/physician_gls/pdf/primary_cutaneous.pdf. Accessed September 5, 2025.
14. Lu YY, Chen JH, Lin WY, et al. FDG PET or PET/CT for detecting intramedullary and extramedullary lesions in multiple Myeloma: a systematic review and meta-analysis. *Clin Nucl Med*. Sep 2012; 37(9): 833-7. PMID 22889770
15. van Lammeren-Venema D, Regelink JC, Riphagen II, et al. ¹⁸F-fluoro-deoxyglucose positron emission tomography in assessment of myeloma-related bone disease: a systematic review. *Cancer*. Apr 15 2012; 118(8): 1971-81. PMID 21887677
16. Han S, Woo S, Kim YI, et al. Prognostic value of 18 F-fluorodeoxyglucose positron emission tomography/computed tomography in newly diagnosed multiple myeloma: a systematic review and meta-analysis. *Eur Radiol*. Jan 2021; 31(1): 152-162. PMID 32809165
17. Rama S, Suh CH, Kim KW, et al. Comparative Performance of Whole-Body MRI and FDG PET/CT in Evaluation of Multiple Myeloma Treatment Response: Systematic Review and Meta-Analysis. *AJR Am J Roentgenol*. Apr 2022; 218(4): 602-613. PMID 34704461
18. Tordjman M, Yuce M, Geahchan A, et al. Comparison of MRI, [18 F]FDG-PET/CT, and [18 F]FDG-PET/MRI for Initial Staging of Multiple Myeloma : A Systematic Review and Meta-analysis. *Clin Nucl Med*. Nov 01 2025; 50(11): 1006-1015. PMID 40644586
19. Mesguich C, Hulin C, Latrabe V, et al. Prospective comparison of 18-FDG PET/CT and whole-body diffusion-weighted MRI in the assessment of multiple myeloma. *Ann Hematol*. Dec 2020; 99(12): 2869-2880. PMID 32951093
20. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Multiple Myeloma. Version 2.2026. https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed September 4, 2025.
21. Centers for Medicare & Medicaid Services (CMS). 2013. Pub 100-03 National Coverage Determination (NCD) for Positron Emission TOMOGRAPHY (FDG) for Oncologic Conditions (220.6.17). <https://tinyurl.com/7hc7hvpr>. Accessed September 20 2025.

POLICY HISTORY - THIS POLICY WAS APPROVED BY THE FEP® PHARMACY AND MEDICAL POLICY COMMITTEE ACCORDING TO THE HISTORY BELOW:

Date	Action	Description
September 2024	New policy- Add to Radiology/Interventional Radiology section	Policy created by separating out hematologic cancer indications from policy 6.01.26. Policy revised with literature review through October 13, 2023. No references added. No changes to policy statements.
September 2025	Replace policy	Policy updated with literature review through September 24, 2024; no references added. Policy statements unchanged. Policy guidelines updated to acknowledge situations when there are contraindications to contrast agents, making initial CT scans unattainable.
March 2026	Replace policy	Policy updated with literature review through September 22, 2025; reference added. Policy statements unchanged.

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