

**ND**

# Medical Policies

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**Policy Number:** X-5026

**Policy Name:** Oncologic Applications of Positron Emission Tomography Scanning

**Policy Type:** Medical

**Policy Subtype:** Radiology

**Effective Date:** 09-15-2025

## Description

Positron emission tomography (PET) scans are based on the use of positron-emitting radionuclide tracers coupled to organic molecules, such as glucose, ammonia, or water. The radionuclide tracers simultaneously emit two (2) high-energy photons in opposite directions that can be simultaneously detected (referred to as coincidence detection) by a PET scanner, comprising multiple stationary detectors that encircle the area of interest.

The utility of PET scanning for the diagnosis, staging and restaging, and surveillance of malignancies varies by type of cancer. In general, PET scanning can distinguish benign from malignant masses in certain circumstances and improve the accuracy of staging by detecting additional disease not detected by other imaging modalities. Therefore, PET scanning for diagnosis and staging of malignancies can be considered medically necessary when specific criteria are met for specific cancers, as outlined in the policy statements. For follow-up after initial diagnosis and staging have been performed, there are a few situations in which PET can improve detection of recurrence, and lead to changes in management that improve the net health outcome.

## Policy Application

All claims submitted under this policy's section will be processed according to the policy effective date and associated revision effective dates in effect on the date of service.

## Criteria

Coverage is subject to the specific terms of the member's benefit plan.

All policy statements apply to both positron emission tomography (PET) scans and PET plus computed tomography (CT) scans, (i.e., PET scans with or without PET/CT fusion).

For the clinical situations indicated that may be considered medically necessary, this assumes that the results of the PET scan will influence treatment decisions. If the results will not influence treatment decisions, these situations would be considered not medically necessary.

In addition to the clinical situations identified below, benefits may be allowed for indications and criteria recognized in the National Comprehensive Cancer Network Guidelines (NCCN Guidelines) that is supported by NCCN 1 or 2A recommended use.

### Bladder cancer

PET scanning may be considered **medically necessary** in the staging or restaging of muscle-invasive bladder cancer when CT or magnetic resonance imaging are not indicated or remained inconclusive on distant metastasis.

PET scanning is considered **investigational** for bladder tumors that have not invaded the muscle (stage <T2).

### Bone Sarcoma

PET scanning may be considered **medically necessary** in the staging or restaging of Ewing sarcoma and osteosarcoma.

PET scanning is considered **investigational** in the staging of chondrosarcoma.

### Brain Cancer

PET scanning may be considered **medically necessary** in the staging or restaging of brain cancer.

### Breast Cancer

PET scanning may be considered **medically necessary** in the staging or restaging of breast cancer for the following application:

- Detecting locoregional or distant recurrence or metastasis (except axillary lymph nodes) when suspicion of disease is high and other imaging is inconclusive.

PET scanning is considered **investigational** in the evaluation of breast cancer for all other applications, including but not limited to the following:

- Differential diagnosis in individuals with suspicious breast lesions or an indeterminate or low suspicion finding on mammography
- Staging axillary lymph nodes.
- Predicting pathologic response to neoadjuvant therapy for locally advanced disease.

### Cervical Cancer

PET scanning may be considered **medically necessary** in the initial staging of individuals with locally advanced cervical cancer.

PET scanning may be considered **medically necessary** in the evaluation of known or suspected recurrence.

### Colorectal Cancer

PET scanning may be considered **medically necessary** as a technique for

- Staging or restaging to detect and assess resectability of hepatic or extrahepatic metastases of colorectal cancer, and
- To evaluate a rising and persistently elevated carcinoembryonic antigen levels when standard imaging, including CT scan, is negative.

PET scanning is considered **investigational** as:

- A technique to assess the presence of scarring vs local bowel recurrence in individuals with previously resected colorectal cancer.
- A technique contributing to radiotherapy treatment planning.

## Endometrial Cancer

PET scanning is considered **medically necessary** in the:

- Detection of lymph node metastases, and
- Assessment of endometrial cancer recurrence.

## Esophageal Cancer

PET scanning may be considered **medically necessary** in the

- Staging of esophageal cancer, and
- Determining response to preoperative induction therapy.

PET scanning is considered **investigational** in other aspects of the evaluation of esophageal cancer, including but not limited to the following applications:

- Detection of primary esophageal cancer.

## Gastric Cancer

PET scanning may be considered **medically necessary** in the:

- Initial diagnosis and staging of gastric cancer, and
- Evaluation for recurrent gastric cancer after surgical resection, when other imaging modalities are inconclusive.

## Head and Neck Cancer

PET scanning may be considered **medically necessary** in the evaluation of head and neck cancer in the:

- Initial diagnosis of suspected cancer,
- Initial staging of disease, and restaging of residual or recurrent disease during follow-up, and
- Evaluation of response to treatment.

## Lung Cancer

PET scanning may be considered **medically necessary** for any of the following applications:

- Individuals with a solitary pulmonary nodule as a single scan technique (not dual-time) to distinguish between benign and malignant disease when prior CT scan findings are inconclusive or discordant,
- As staging or restaging technique in those with known non-small-cell lung cancer, and
- To determine resectability for individuals with a presumed solitary metastatic lesion from lung cancer.

PET scanning may be considered **medically necessary** in staging of small-cell lung cancer if limited stage is

suspected based on standard imaging.

PET scanning is considered **investigational** in staging of small-cell lung cancer if extensive stage is established and in all other aspects of managing small-cell lung cancer.

### Lymphoma, Including Hodgkin Disease

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

### Melanoma

PET scanning may be considered **medically necessary** as a technique for assessing extranodal spread of malignant melanoma at initial staging or at restaging during follow-up treatment for advanced disease (stage III or IV).

PET scanning is considered **investigational** in managing stage 0, I, or II melanoma.

PET scanning is considered **investigational** as a technique to detect regional lymph node metastases in individuals with clinically localized melanoma who are candidates to undergo sentinel node biopsy.

### Multiple Myeloma

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

### Neuroendocrine Tumors

PET scanning with gallium 68 may be considered **medically necessary** as a technique for staging neuroendocrine tumors either during initial staging or for restaging at follow-up.

PET scanning with other radiotracers is considered **investigational** in all aspects of managing neuroendocrine tumors.

### Ovarian Cancer

PET scanning may be considered **medically necessary** in the evaluation of individuals with signs and/or symptoms of suspected ovarian cancer recurrence (restaging) when standard imaging, including CT scan, is inconclusive.

PET scanning is considered **investigational** in the initial evaluation of known or suspected ovarian cancer in all situations.

### Pancreatic Cancer

PET scanning may be considered **medically necessary** in the initial diagnosis and staging of pancreatic cancer when other imaging and biopsy are inconclusive.

PET scanning is considered **investigational** as a technique to evaluate other aspects of pancreatic cancer.

### Penile Cancer

PET scanning may be considered **medically necessary** for staging and restaging in individuals with suspected inguinal lymph node positive disease.

PET scanning is considered **investigational** in all other aspects of managing penile cancer.

## Prostate Cancer

PET scanning with carbon 11 choline and fluorine 18 fluciclovine may be considered **medically necessary** for evaluating suspected or biochemically recurrent prostate cancer after primary treatment to detect small volume disease in soft tissues.

PET scanning with gallium 68-prostate-specific membrane antigen and piflufolastat fluorine-18 may be considered **medically necessary** for any of the following applications:

- Individuals with diagnosed prostate cancer in need of staging information and:
  - NCCN unfavorable intermediate-, high-, or very-high-risk prostate cancer (see Policy Guidelines); **or**
  - NCCN unfavorable intermediate-, high-, or very-high-risk prostate cancer with equivocal results or oligometastatic disease on initial conventional imaging (see Policy Guidelines).
- Individuals with suspected recurrence of prostate cancer based on serum PSA level who have received:
  - Radical prostatectomy with PSA level persistence or rise from undetectable level (see Policy Guidelines); **or**
  - Definitive radiotherapy with PSA rise above nadir (see Policy Guidelines).
- Individuals with treated prostate cancer (including active surveillance/observation) in need of imaging as part of a workup for progression (see Policy Guidelines).
- Individuals with metastatic prostate cancer for whom lutetium Lu-177 vipivotide tetraxetan PSMA-directed therapy is indicated.

Use of gallium 68-prostate-specific membrane antigen and piflufolastat fluorine-18 in known or suspected prostate cancer is considered **investigational** for all other indications, including diagnosis, primary staging of very-low, low- or favorable intermediate-risk prostate cancer, and evaluation of response to therapy.

PET scanning for all other indications in known or suspected prostate cancer is considered **investigational**.

## Renal Cell Carcinoma

PET scanning is considered **investigational** in all aspects of managing renal cancer.

## Soft Tissue Sarcoma

PET scanning is considered **investigational** in evaluation of soft tissue sarcoma, including but not limited to the following applications:

- Distinguishing between benign lesions and malignant soft tissue sarcoma,
- Distinguishing between low-grade and high-grade soft tissue sarcoma,
- Detecting locoregional recurrence,
- Detecting distant metastasis.

PET scanning is considered **medically necessary** for evaluating response to imatinib and other treatments for gastrointestinal stromal tumors.

## Testicular Cancer

PET scanning may be considered **medically necessary** in evaluation of residual mass following chemotherapy of stage IIB and III seminomas. (The scan should be completed no sooner than 6 weeks after chemotherapy.)

Except as noted above for seminoma, PET scanning is considered **investigational** in evaluation of testicular cancer, including but not limited to the following applications:

- Initial staging of testicular cancer,
- Distinguishing between viable tumor and necrosis/fibrosis after treatment of testicular cancer, and

- Detection of recurrent disease after treatment of testicular cancer.

## Thyroid Cancer

PET scanning may be considered **medically necessary** in the restaging of individuals with differentiated thyroid cancer when thyroglobulin levels are elevated and whole-body iodine-131 imaging is negative.

PET scanning is considered **investigational** in the evaluation of known or suspected differentiated or poorly differentiated thyroid cancer in all other situations.

## Cancer of Unknown Primary

PET scanning may be considered **medically necessary** in individuals with a cancer of unknown primary who meet ALL of the following criteria:

- In individuals with a single site of disease outside the cervical lymph nodes, and
- Individual is considering local or regional treatment for a single site of metastatic disease, and
- After a negative workup for an occult primary tumor, and
- PET scan will be used to rule out or detect additional sites of disease that would eliminate the rationale for local or regional treatment.

PET scanning is considered **investigational** for other indications in individuals with a cancer of unknown primary, including, but not limited to the following:

- As part of the initial workup of a cancer of unknown primary, and
- As part of the workup of individuals with multiple sites of disease.

## Cancer Surveillance

PET 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 six (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

## Patient Selection

As with any imaging technique, the medical necessity of positron emission tomography (PET) scanning depends in part on what imaging techniques are used before or after the PET scanning. Due to its expense, PET scanning is typically considered after other techniques, such as computed tomography (CT), magnetic resonance imaging (MRI), or ultrasonography, provide inconclusive or discordant results. In individuals with melanoma or lymphoma, PET scanning may be considered an initial imaging technique. If so, the medical necessity of subsequent imaging during the same diagnostic evaluation is unclear. Thus, PET should be considered for the medically necessary indications above only when standard imaging (eg, CT, MRI) is inconclusive or not indicated.

Individual selection criteria for PET scanning also may be complex. For example, it may be difficult to determine from claims data whether a PET scan in an individual with malignant melanoma is being done primarily to evaluate extranodal disease or regional lymph nodes. Similarly, it may be difficult to determine whether a PET scan in an individual with colorectal cancer is being performed to detect hepatic disease or evaluate local recurrence. Due to the complicated hierarchy of imaging options in individuals with malignancy and complex

individual selection criteria, a possible implementation strategy for this policy is its use for retrospective review, possibly focusing on cases with multiple imaging tests, including PET scans.

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.

### Prostate-Specific Membrane Antigen Positron Emission Tomography

Appropriate selection of patients for prostate-specific membrane antigen (PSMA) PET imaging may be guided according to National Comprehensive Cancer Network (NCCN) and Society of Nuclear Medicine and Molecular Imaging (SNMMI) criteria (see policy section <sup>68</sup> Ga-PSMA PET, <sup>68</sup> Ga-PSMA PET/CT, Piflufolastat-F <sup>18</sup> PET, and Piflufolastat-F <sup>18</sup> PET/CT Guidelines). NCCN and SNMMI recommendations for use of PSMA PET in individuals with newly diagnosed prostate cancer in need of staging are based on the following NCCN risk criteria:

Risk Group	Clinical/Pathological Features
Very Low	<p>Has all of the following:</p> <ul style="list-style-type: none"> <li>• cT1c</li> <li>• Grade Group 1</li> <li>• PSA less than 10 ng/mL</li> <li>• Fewer than three (3) prostate biopsy fragments/cores positive, less than or equal to ( ≤ ) 50% cancer in each fragment/core</li> <li>• PSA density less than 0.15 ng/mL/g</li> </ul>
Low	<p>Has all of the following but does not qualify for very low risk:</p> <ul style="list-style-type: none"> <li>• cT1-cT2a</li> <li>• Grade Group 1</li> <li>• PSA less than 10 ng/mL</li> </ul>
Intermediate	<p>Has all of the following:</p> <ul style="list-style-type: none"> <li>• No high-risk group features</li> <li>• No very-high-risk group features</li> <li>• Has one or more intermediate risk factor: <ul style="list-style-type: none"> <li>◦ cT2b-cT2c</li> <li>◦ Grade Group 2 or 3</li> </ul> </li> <li>• PSA 10-20 ng/mL</li> </ul>
Favorable Intermediate	<p>Intermediate risk criteria, AND all of the following:</p> <ul style="list-style-type: none"> <li>• 1 intermediate risk factor</li> <li>• Grade Group 1 or 2</li> <li>• less than ( &lt; ) 50% biopsy cores positive (e.g., less than ( &lt; ) six ( 6 ) of 12 cores)</li> </ul>

Unfavorable Intermediate	Intermediate risk criteria AND one or more of the following: <ul style="list-style-type: none"> <li>• 2 or 3 intermediate risk factors</li> <li>• Grade Group 3</li> <li>• Greater than or equal to ( <math>\geq</math> ) 50% biopsy cores positive (e.g., greater than or equal six (6) of 12 cores)</li> </ul>
High	Has no very-high-risk features and has exactly one high-risk feature: <ul style="list-style-type: none"> <li>• cT3a OR</li> <li>• Grade Group 4 or Grade Group 5 OR</li> <li>• PSA greater than 20 ng/mL</li> </ul>
Very High	Has at least one of the following: <ul style="list-style-type: none"> <li>• cT3b- cT4</li> <li>• Primary Gleason pattern five (5)</li> <li>• Two (2) or three (3) high-risk features</li> <li>• Greater than ( <math>&gt;</math> ) four ( 4 ) cores with Grade Group 4 or 5</li> </ul>

Individuals who meet unfavorable intermediate-, high- and very-high risk criteria are suitable candidates for PSMA PET bone and/or soft tissue imaging, either following equivocal results on initial conventional imaging (e.g., MRI) or as alternative to conventional imaging.

PSMA PET imaging is not recommended for staging newly diagnosed individuals in very low, low, or favorable intermediate NCCN risk groups, or for individuals with suspected prostate cancer based on elevated PSA, increasing PSA on serial measurements, and/or clinical signs (e.g., abnormal digital rectal exam).

Use of PSMA PET imaging is appropriate for individuals who have undergone radical prostatectomy or radiation therapy for prostate cancer with subsequent suspected persistence or recurrence. Specific considerations for use of PSMA PET are:

- Following radical prostatectomy AND:
  - Failure of PSA to fall to undetectable levels; OR
  - Previously undetectable PSA with a subsequent detectable PSA that increases on greater than or equal to (  $\geq$  ) two (2) measurements
- Following definitive radiation therapy AND:
  - A PSA rise Greater than or equal to 2 ng/mL above the nadir; **OR**
  - A positive digital rectal exam.

PSMA PET may also be considered when PSA has been confirmed to be increasing after radiation therapy even if the increase above nadir is not yet 2 ng/mL, particularly in candidates with a favorable prognosis for salvage local therapy.

PSMA PET use is appropriate in individuals who have previously been treated for prostate cancer (including those under active surveillance/observation) who require imaging as part of a workup for progression. NCCN guidelines include recommended workup protocols, which vary according to prior treatment and cancer stage. The guidelines recommend use of PSMA PET bone and soft tissue imaging when conventional imaging results are equivocal but also state that PSMA PET imaging is more accurate than conventional imaging at detecting



micrometastatic disease, and as such, the guidelines note that conventional imaging is not a necessary prerequisite to PSMA PET imaging.

Coding

A PET scan involves three (3) separate activities: (1) manufacture of the radiopharmaceutical, which may be on site or at a regional center with delivery to the institution performing PET; (2) actual performance of the PET scanner; and (3) interpretation of the results. CPT and HCPCS codes are available to code for PET scans. See the Codes table for details.

When the radiopharmaceutical is provided by an outside distribution center, there may be an additional separate charge, or this charge may be passed through and included in the hospital bill. In addition, an extra transportation charge will be likely for radiopharmaceuticals that are not manufactured on site.

The Centers for Medicare & Medicaid Services added two (2) new modifiers in 2009 to facilitate the changes in the Medicare national coverage policy for PET. The modifiers are:

PI - Positron emission tomography (PET) or PET/computed tomography (CT) to inform the initial treatment strategy of tumors that are biopsy proven or strongly suspected of being cancerous based on other diagnostic testing, one (1) per cancer diagnosis

PS - Positron emission tomography (PET) or PET/computed tomography (CT) to inform the subsequent treatment strategy of cancerous tumors when the beneficiary's treating physician determines that the PET study is needed to inform subsequent anti-tumor strategy.

Regulatory Status

As of August 2022, the following radiopharmaceuticals have been granted approval by the United States Food and Drug Administration (U.S. FDA), to be used with PET for cancer-related indications (see Table 1). [1](#)

Table 1. Radiopharmaceuticals Approved for Use with PET for Oncologic Applications

Radiopharmaceutical	Manufacturer	Name	Carcinoma-Related Indication With PET
Carbon-11 choline (C-11)	Various	Suspected prostate cancer recurrence based on elevated blood PSA after therapy and noninformative bone scintigraphy, CT, or MRI	
Copper-64 dotatate	Curium	Detectnet™	Localization of somatostatin receptor-positive NETs in adult individuals
Fluorine-18 fluorodeoxyglucose (FDG)	Various	Suspected or existing diagnosis of cancer, all types	

Fluorine-18 fluoroestradiol	Zionexa USA	Cerianna™	Detection of ER-positive lesions as an adjunct to biopsy in individuals with recurrent or metastatic breast cancer
Fluorine-18 fluciclovine	Blue Earth Diagnostics	Axumin™	Suspected prostate cancer recurrence based on elevated blood PSA levels after treatment
Gallium-68 dotatoc	UIHC - P E T Imaging Center	Localization of somatostatin receptor-positive NETs in adult and pediatric individuals	
Gallium-68 dotatate	Advanced Accelerator Applications	NETSPOT™	Localization of somatostatin receptor-positive NETs in adult and pediatric individuals
Gallium-68 PSMA-11 <sup>§</sup>	University of California, Los Angeles and the University of California, San Francisco	PSMA positive lesions in men with prostate cancer with suspected metastasis who are candidates for initial definitive therapy or with suspected recurrence based on elevated serum PSA level	
Piflufolastat fluorine-18	Progenics Pharmaceuticals, Inc	Pylarify®	PSMA positive lesions in men with prostate cancer with suspected

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- U.S. FDA-approval given to the University of California, Los Angeles and the University of California, San Francisco.  
CT: computerized tomography; ER: estrogen receptor; MRI: magnetic resonance imaging; NET: neuroendocrine tumors; PET: positron emission tomography; PSA: prostate-specific antigen; PSMA: prostate-specific membrane antigen.

Two kits used for the preparation of Gallium-68 PSMA-11 have received U.S. FDA approval: the Illuccix® (Telix Pharmaceuticals) kit, approved in December 2021; and the Locametz® (Advanced Accelerator Applications/Novartis) kit, approved in March 2022. [2](#). The preparation kits are for use in individuals with PSMA-positive prostate cancer with suspected metastasis who are candidates for initial definitive therapy, or with suspected recurrence based on elevated serum PSA level. In addition, Locametz is approved for selection of patients with metastatic prostate cancer, for whom lutetium Lu-177 vipivotide tetraxetan (Pluvicto™; Novartis) PSMA-directed therapy is indicated.

### Procedure Codes

78608	78609	78811	78812	78813	78814	78815
78816	A9519	A9526	A9552	A9580	A9587	A9588
A9591	A9595	A9596	A9598	A9601	A9602	A9800
C9067	G0219	G0235	G0252			

## Summary of Evidence

### Bladder Cancer

For individuals who have suspected or diagnosed bladder cancer in need of staging or restaging information who receive fluorine 18 ( <sup>18</sup> F) coupled with fluorodeoxyglucose (FDG) PET or FDG-PET/computed tomography (CT), the evidence includes a systematic review and meta-analysis. Relevant outcome is test validity. Pooled analyses showed relatively high sensitivity and specificity for muscle-invasive bladder cancer. Clinical guidelines

include PET and PET/CT as considerations in staging muscle-invasive bladder cancer, though CT, magnetic resonance imaging, and chest radiographs are also appropriate techniques for staging purposes. 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 bladder cancer 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.

## Bone Sarcoma

For individuals who have suspected or diagnosed bone sarcoma and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes systematic reviews and meta-analyses. Relevant outcome is test validity. Pooled analyses have shown that PET or PET/CT can effectively diagnose and stage bone sarcoma, including chondrosarcoma. Use of PET or PET/CT has high sensitivities and specificities in detecting metastases in bone and lymph nodes; however, the tests have low sensitivity in detecting lung metastases. Clinical guidelines include PET and 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 bone sarcoma 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.

## Brain Tumors

For individuals who have diagnosed brain tumors and in need of staging or restaging information or who have suspected brain tumor who receive FDG-PET,  $^{18}\text{F}$  fluoro-ethyl-tyrosine PET, or carbon 11 ( $^{11}\text{C}$ ) methionine PET, the evidence includes several systematic reviews and meta-analyses. Relevant outcome is test validity. Pooled analyses have shown that PET or PET/CT can be effective in distinguishing brain tumors from normal tissue. Indirect comparisons between the radiotracers  $^{11}\text{C}$ -methionine and FDG have shown that  $^{11}\text{C}$ -methionine may have better diagnostic performance. Clinical guidelines include PET 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 brain cancer treatment who receive FDG-PET,  $^{18}\text{F}$  fluoro-ethyl-tyrosine-PET, or  $^{11}\text{C}$ -methionine PET, the evidence includes systematic reviews and meta-analyses. Relevant outcome is test validity. Pooled analyses did not support the use of PET for surveillance of brain cancer following treatment. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

## Breast Cancer

For individuals who have diagnosed breast cancer and inconclusive results from other imaging techniques who receive adjunctive FDG-PET or FDG-PET/CT for staging or restaging, the evidence includes meta-analyses. Relevant outcome is test validity. While studies included in the meta-analyses reported variability in estimates of sensitivity and specificity, FDG-PET or FDG-PET/CT may be helpful in situations in which standard staging results are equivocal or suspicious, particularly in individuals with locally advanced or metastatic disease. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected or diagnosed breast cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a TEC Assessment, several systematic reviews, and meta-analyses. Relevant outcome is test validity. There is no evidence supporting the use of PET in diagnosing breast cancer. The false-negative rates (5.5% to 8.5%) using PET in individuals with breast cancer can be

considered unacceptable, given that breast biopsy can provide more definitive results. Use of PET/CT may be considered for the detection of metastases only when results from other imaging techniques are inconclusive. 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 breast cancer 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.

### **Cervical Cancer**

For individuals who have diagnosed cervical cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes an Agency for Healthcare Research and Quality (AHRQ) report and meta-analyses. Relevant outcome is test validity. Pooled results have shown that PET can be used for staging or restaging and for detecting recurrent disease. Clinical guidelines include PET and 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 have suspected cervical cancer or who are asymptomatic after completing cervical cancer treatment who receive FDG-PET or FDG-PET/CT, there is no evidence. Relevant outcomes are test accuracy and test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **Colorectal Cancer**

For individuals who have diagnosed colorectal cancer (CRC) and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes several meta-analyses. Relevant outcome is test validity. A meta-analysis evaluating the diagnostic accuracy of PET or PET/CT found a high sensitivity but low specificity. Several pooled analyses evaluating staging or restaging using PET or PET/CT resulted in wide ranges of sensitivities and specificities, from 16% to 99%. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected CRC or who are asymptomatic after completing CRC treatment who receive FDG-PET or FDG-PET/CT, the evidence includes a randomized controlled trial (RCT). Relevant outcome is test validity. The RCT found no differences in outcomes when FDG-PET/CT was added to usual surveillance compared to usual surveillance only. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **Endometrial Cancer**

For individuals who have diagnosed endometrial cancer in need of staging or restaging information or who are asymptomatic after completing endometrial cancer treatment who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review and meta-analysis. Relevant outcome is test validity. Pooled estimates from the meta-analysis showed high sensitivities and specificities for FDG-PET/CT in detecting lymph node metastases and endometrial cancer recurrence following treatment. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

### **Esophageal Cancer**

For individuals who have diagnosed esophageal cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes several meta-analyses. Relevant outcome is test validity. Pooled estimates have shown high sensitivities and specificities compared to other diagnostic imaging techniques. Clinical guidelines include PET and 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 have suspected esophageal cancer or who are asymptomatic after completing esophageal cancer treatment who receive FDG-PET or FDG-PET/CT, the evidence includes meta-analyses. Relevant outcome is test validity. Pooled analyses have shown adequate sensitivities but low specificities. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **Gastric Cancer**

For individuals who have suspected or diagnosed gastric cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes several meta-analyses. Relevant outcome is test validity. Pooled analyses, with sensitivities and specificities ranging from 78% to 88%, have shown that PET or PET/CT can inform staging or restaging of individuals with gastric cancer. 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 gastric cancer treatment who receive FDG-PET or FDG-PET/CT, the evidence includes meta-analyses. Relevant outcome is test validity. Pooled analyses have shown low sensitivities and specificities. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **Head and Neck Cancer**

For individuals who have suspected or diagnosed head and neck cancer in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes several systematic reviews and meta-analyses. Relevant outcome is test validity. In individuals with head and neck cancers, PET and PET/CT are better able to detect local and metastatic disease compared with other imaging techniques. Evidence has also shown that FDG-PET/CT may be useful in predicting response to therapy. Two meta-analyses calculated the ability of FDG-PET or PET/CT to detect the residual or recurrent disease during various stages of treatment and another meta-analysis calculated the ability of positive PET or PET/CT results to predict overall survival and event-free survival. 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 head and neck cancer 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.

### **Non-Small-Cell Lung Cancer**

For individuals who have suspected non-small-cell lung cancer (NSCLC) and inconclusive results from other imaging techniques or who have diagnosed NSCLC and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes several meta-analyses. Relevant outcome is test validity. Pooled analyses have shown that PET and PET/CT have better diagnostic performance than conventional imaging techniques. 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 have suspected NSCLC or who are asymptomatic after completing NSCLC 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.

### **Small-Cell Lung Cancer**

For individuals with diagnosed small-cell lung cancer (SCLC) and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes systematic reviews and meta-analyses. Relevant outcome is test validity. While the quality of the studies was considered low, PET and PET/CT can be considered for staging or restaging in individuals with SCLC if a limited stage is suspected. 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 have suspected SCLC or who are asymptomatic after completing SCLC treatment who receive FDG-PET or FDG-PET/CT, there is no evidence. Relevant outcomes are test accuracy and test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

### **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 FDG-PET or FDG-PET/CT, the evidence includes a TEC Assessment, several meta-analyses, and a RCT. 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.

### **Melanoma**

For individuals who have suspected or diagnosed stage I or II melanoma and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a TEC Assessment. Relevant outcome is test validity. Evidence has shown PET and PET/CT are not as beneficial as the reference standard (sentinel node biopsy) for assessing regional lymph nodes. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have diagnosed advanced melanoma (stage III or IV) and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a TEC Assessment and a meta-analysis. Relevant outcome is test validity. Evidence has shown PET and PET/CT can detect systemic metastases in individuals with advanced melanoma. Clinical guidelines include PET/CT for staging or restaging stage III or IV disease and for surveillance. 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 melanoma treatment who receive FDG-PET or FDG-PET/CT, the evidence includes retrospective and observational studies. Relevant outcome is test validity. At the discretion of the physician, imaging surveillance can be considered every three (3) to 12 months. Because recurrences usually occur within three (3) years, screening asymptomatic individuals beyond three (3) to five (5) years is not recommended. The evidence is sufficient 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-analysis 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 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.

## Neuroendocrine Tumors

For individuals who have suspected or diagnosed neuroendocrine tumors and in need of staging or restaging information or who are asymptomatic after completing neuroendocrine tumor treatment who receive FDG-PET or FDG-PET/CT, the evidence includes two (2) meta-analyses. Relevant outcome is test validity. The evidence did not compare PET or PET/CT with other modalities and, therefore, did not provide comparative effectiveness information. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected or diagnosed neuroendocrine tumors and in need of staging or restaging information who receive gallium 68 ( $^{68}\text{Ga}$ ) or copper 64 ( $^{64}\text{Cu}$ ) PET or PET/CT, the evidence includes several systematic reviews with meta-analyses and prospective, comparative studies. Relevant outcome is test validity. The meta-analyses showed relatively high sensitivities and specificities using  $^{68}\text{Ga}$ -PET/CT as the radiotracer compared with other imaging techniques in the diagnosis and staging of neuroendocrine tumors. A study comparing the diagnostic performance between  $^{64}\text{Cu}$  PET/CT and  $^{68}\text{Ga}$ -PET/CT reported an increase in detection of lesions with  $^{64}\text{Cu}$  PET/CT. Current guidelines recommend using somatostatin receptor PET tracers,  $^{68}\text{Ga}$ -dotatate,  $^{68}\text{Ga}$ -dotatoc, or  $^{64}\text{Cu}$ -dotatate, to assess receptor status and presence of distant disease. 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 neuroendocrine tumor treatment who receive  $^{68}\text{Ga}$  or  $^{64}\text{Cu}$  PET or 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.

## Ovarian Cancer

For individuals who have diagnosed ovarian cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes an AHRQ systematic review and several meta-analyses. Relevant outcome is test validity. Pooled sensitivities and specificities have supported the use of PET and PET/CT for the detection of recurrent ovarian cancer. 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 have suspected ovarian cancer or who are asymptomatic after completing ovarian cancer 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.

## Pancreatic Cancer



For individuals who have suspected or diagnosed pancreatic cancer and with inconclusive results from other imaging techniques who receive adjunctive FDG-PET or FDG-PET/CT for staging or restaging, the evidence includes a TEC Assessment, systematic reviews, and a large observational study. Relevant outcome is test validity. The evidence has shown that PET and PET/CT do not have a high enough negative predictive value to surpass current standard decision thresholds. The large observational study, which assessed the incremental diagnostic value of PET/CT when added to standard workup with CT, showed significant improvements in sensitivity and specificity compared with CT alone. Clinical guidelines state that PET or PET/CT should only be considered if the results from standard staging methods are inconclusive. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected or diagnosed pancreatic cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes an AHRQ systematic review, a TEC Assessment, and a meta-analysis published after the review and assessment. Relevant outcome is test validity. The evidence has shown that PET and PET/CT do not have a high enough negative predictive value to surpass current standard decision thresholds. Therefore, PET or PET/CT should only be considered if the results from standard staging methods are inconclusive. 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 pancreatic cancer 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.

## Penile Cancer

For individuals who have suspected or diagnosed node negative penile cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review. Relevant outcome is test validity. The evidence has shown that PET had a low sensitivity, and no comparisons were made with other modalities. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected or diagnosed node positive penile cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review and a retrospective comparative study. Relevant outcome is test validity. In individuals with suspected inguinal lymph node positive disease, PET/CT may offer increased sensitivity compared to CT alone for staging. 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 penile cancer 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.

## Prostate Cancer

For individuals who have suspected or diagnosed prostate cancer and in need of staging or restaging information who receive <sup>11</sup>C-choline PET, <sup>11</sup>C-choline PET/CT, <sup>18</sup>F-fluciclovine PET, or <sup>18</sup>F-fluciclovine PET/CT, the evidence includes several meta-analyses. Relevant outcome is test validity. Meta-analyses have reported that use of <sup>11</sup>C-choline and <sup>18</sup>F-fluciclovine radiotracers result in similar sensitivities and specificities. Prospective studies in men with biochemical recurrence after primary treatment have reported that a majority of management decisions were changed based on <sup>18</sup>F-fluciclovine PET/CT results among men with suspected recurrence. One of those studies evaluated the impact on clinical outcomes and reported an increase in 3-year event-free survival rates. Further study is needed to compare PET and PET/CT with other imaging techniques, such as MRI and radionuclide bone scan. 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 prostate cancer treatment who receive <sup>11</sup>C-choline PET, <sup>11</sup>C-choline PET/CT, <sup>18</sup>F-fluciclovine PET, or <sup>18</sup>F-fluciclovine 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 have suspected prostate cancer who receive <sup>68</sup>Ga-prostate-specific membrane antigen (PSMA) PET, <sup>68</sup>Ga-PSMA PET/CT, piflufolastat-F <sup>18</sup>PET, and piflufolastat-F <sup>18</sup>PET/CT, the evidence includes a systematic review. Relevant outcome is test validity. The systematic review found similar diagnostic accuracy for PSMA PET and MRI for detection of clinically significant prostate cancer, but evidence was too limited to draw conclusions as only 3 studies of 228 individuals were included in the analysis. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have diagnosed prostate cancer and in need of staging or restaging information who receive <sup>68</sup>Ga-prostate-specific membrane antigen (PSMA) PET, <sup>68</sup>Ga-PSMA PET/CT, piflufolastat-F <sup>18</sup>PET, and piflufolastat-F <sup>18</sup>PET/CT, the evidence includes systematic reviews and prospective, multicenter trials. Relevant outcome is test validity. Systematic reviews have found PSMA PET to have similar diagnostic accuracy across prostate cancer risk groups in newly diagnosed individuals, and to be similar to MRI for staging intermediate/high-risk prostate cancer. Systematic reviews of studies conducted in individuals with biochemical recurrence found high proportions with positive PSMA PET imaging, often leading to change in management. Individual prospective trials have generally found that PSMA PET provides a high specificity for detecting pelvic lymph node or distant metastases in newly diagnosed individuals with high-risk disease and a clinically relevant PPV in individuals with biochemical recurrence. 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 prostate cancer treatment who receive <sup>68</sup>Ga-PSMA PET, <sup>68</sup>Ga-PSMA PET/CT, piflufolastat-F <sup>18</sup>PET, and piflufolastat-F <sup>18</sup>PET/CT, there is no evidence on clinical outcomes. Relevant outcome that has been studied is test validity. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

## Renal Cell Carcinoma

For individuals who are diagnosed with renal cell carcinoma and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review and meta-analysis. Relevant outcome is test validity. The review concluded that PET has the potential to detect metastatic or recurrent lesions in individuals with renal cell cancer but that additional prospective studies are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

## Soft Tissue Sarcoma

For individuals who have diagnosed soft tissue sarcoma and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes an AHRQ review and a systematic review using PET for assessing response to imatinib. Relevant outcome is test validity. The review reported that PET had low diagnostic accuracy and there was a lack of studies comparing PET with alternative diagnostic modalities. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with diagnosed soft tissue sarcoma and in need of rapid reading of response to imatinib treatment who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review. Relevant outcome is test validity. The review concluded that PET/CT can be used to monitor treatment response to imatinib, which can lead to individually adapted treatment strategies. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected soft tissue sarcoma or who are asymptomatic after completing soft tissue sarcoma treatment who receive FDG-PET or FDG-PET/CT, the evidence includes a systematic review. Relevant outcome is test validity. The review concluded that there was insufficient evidence on the use of PET for the detection of locoregional recurrence. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Testicular Cancer

For individuals with diagnosed testicular cancer in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes an AHRQ systematic review and assessment. Relevant outcome is test validity. Results have shown that PET or PET/CT can evaluate residual masses following chemotherapy for seminoma. Clinical guidelines include PET/CT to inform management decisions that may offer clinical benefit. There is no evidence supporting the use of PET or PET/CT in nonseminoma individuals. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have suspected testicular cancer or who are asymptomatic after completing testicular cancer 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.

Thyroid Cancer

For individuals with diagnosed thyroid cancer and in need of staging or restaging information who receive FDG-PET or FDG-PET/CT, the evidence includes systematic reviews and meta-analyses. Relevant outcome is test validity. Pooled analyses have shown that PET or PET/CT can effectively detect recurrent differentiated thyroid cancer. 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 have suspected thyroid cancer or who are asymptomatic after completing thyroid cancer 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.

Cancer of Unknown Primary and Single-Site Metastatic Disease

For individuals with cancer of unknown primary and single-site metastatic disease who receive FDG-PET or FDG-PET/CT, the evidence includes a TEC Assessment. Relevant outcome is test validity. Studies reviewed in the assessment showed that PET identified previously undetected metastases confirmed by biopsy. Additionally, PET can contribute to the management of individuals with cancer of unknown primary. 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.

Professional Statements and Societal Positions Guidelines

Not Applicable

Diagnosis Codes

C00.0	C00.1	C00.2	C00.3	C00.4	C00.5	C00.6
C00.8	C00.9	C01	C02.0	C02.1	C02.2	C02.3

C02.4	C02.8	C02.9	C03.0	C03.1	C03.9	C04.0
C04.1	C04.8	C04.9	C05.0	C05.1	C05.2	C05.8
C05.9	C06.0	C06.1	C06.2	C06.80	C06.89	C06.9
C07	C08.0	C08.1	C08.9	C09.0	C09.1	C09.8
C09.9	C10.0	C10.1	C10.2	C10.3	C10.4	C10.8
C10.9	C11.0	C11.1	C11.2	C11.3	C11.8	C11.9
C12	C13.0	C13.1	C13.2	C13.8	C13.9	C14.0
C14.2	C14.8	C15.3	C15.4	C15.5	C15.8	C15.9
C16.0	C16.1	C16.2	C16.3	C16.4	C16.5	C16.6
C16.8	C16.9	C18.0	C18.1	C18.2	C18.3	C18.4
C18.5	C18.6	C18.7	C18.8	C18.9	C19	C25.0
C25.1	C25.2	C25.3	C25.4	C25.7	C25.8	C25.9
C30.0	C30.1	C31.0	C31.1	C31.2	C31.3	C31.8
C31.9	C32.0	C32.1	C32.2	C32.3	C32.4	C32.8
C32.9	C34.00	C34.01	C34.02	C34.10	C34.11	C34.12
C34.2	C34.30	C34.31	C34.32	C34.80	C34.81	C34.82
C34.90	C34.91	C34.92	C40.00	C40.01	C40.02	C40.10
C40.11	C40.12	C40.20	C40.21	C40.22	C40.30	C40.31
C40.32	C40.80	C40.81	C40.82	C40.90	C40.91	C40.92
C41.0	C41.1	C41.2	C41.3	C41.4	C41.9	C43.0
C43.10	C43.111	C43.112	43.121	43.121	C43.20	C43.21
C43.22	C43.30	C43.31	C43.39	C43.4	C43.51	C43.52
C43.59	C43.60	C43.61	C43.62	C43.70	C43.71	C43.72
C43.8	C43.9	C50.011	C50.012	C50.019	C50.021	C50.022

C50.029	C50.111	C50.112	C50.119	C50.121	C50.122	C50.129
C50.211	C50.212	C50.219	C50.221	C50.222	C50.229	C50.311
C50.312	C50.319	C50.321	C50.322	C50.329	C50.411	C50.412
C50.419	C50.421	C50.422	C50.429	C50.511	C50.512	C50.519
C50.521	C50.522	C50.529	C50.611	C50.612	C50.619	C50.621
C50.622	C50.629	C50.811	C50.812	C50.819	C50.821	C50.822
C50.829	C50.911	C50.9.12	C50.919	C50.921	C50.922	C50.929
C53.0	C53.1	C53.8	C53.9	C54.1	C56.1	C56.2
C56.9	C62.00	C62.01	C62.02	C62.10	C62.11	C62.12
C62.90	C62.91	C62.92	C67.0	C67.1	C67.2	C67.3
C67.4	C67.5	C67.6	C67.7	C67.8	C67.9	C71.0
C71.1	C71.2	C71.3	C71.4	C71.5	C71.6	C71.7
C71.8	C71.9	C73	C76.0	C80.0	C80.1	C81.00
C81.01	C81.02	C81.03	C81.04	C81.05	C81.06	C81.07
C81.08	C81.09	C81.10	C81.11	C81.12	C81.13	C81.14
C81.15	C81.16	C81.17	C81.18	C81.19	C81.20	C81.21
C81.22	C81.23	C81.24	C81.25	C81.26	C81.27	C81.28
C81.29	C81.30	C81.31	C81.32	C81.33	C81.34	C81.35
C81.36	C81.37	C81.38	C81.39	C81.40	C81.41	C81.42
C81.43	C81.44	C81.45	C81.46	C81.47	C81.48	C81.49
C81.70	C81.71	C81.72	C81.73	C81.74	C81.75	C81.76
C81.77	C81.78	C81.79	C81.90	C81.91	C81.92	C81.93
C81.94	C81.95	C81.96	C81.97	C81.98	C81.99	C82.00
C82.01	C82.02	C82.03	C82.04	C82.05	C82.06	C82.07

C82.08	C82.09	C82.10	C82.11	C82.12	C82.13	C82.14
C82.15	C82.16	C82.17	C82.18	C82.19	C82.20	C82.21
C82.22	C82.23	C82.24	C82.25	C82.26	C82.27	C82.28
C82.29	C82.30	C82.31	C82.32	C82.33	C82.34	C82.35
C82.36	C82.37	C82.38	C82.39	C82.40	C82.41	C82.42
C82.43	C82.44	C82.45	C82.46	C82.47	C82.48	C82.49
C82.50	C82.51	C82.52	C82.53	C82.54	C82.55	C82.56
C82.57	C82.58	C82.59	C82.60	C82.61	C82.62	C82.63
C82.64	C82.65	C82.66	C82.67	C82.68	C82.69	C82.80
C82.81	C82.82	C82.83	C82.84	C82.85	C82.86	C82.87
C82.88	C82.89	C82.90	C82.91	C82.92	C82.93	C82.94
C82.95	C82.96	C82.97	C82.98	C82.99	C83.00	C83.01
C83.02	C83.03	C83.04	C83.05	C83.06	C83.07	C83.08
C83.09	C83.10	C83.11	C83.12	C83.13	C83.14	C83.15
C83.16	C83.17	C83.18	C83.19	C83.30	C83.31	C83.32
C83.33	C83.34	C83.35	C83.36	C83.37	C83.38	C83.39
C83.50	C83.51	C83.52	C83.53	C83.54	C83.55	C83.56
C83.57	C83.58	C83.59	C83.70	C83.71	C83.72	C83.73
C83.74	C83.75	C83.76	C83.77	C83.78	C83.79	C83.80
C83.81	C83.82	C83.83	C83.84	C83.85	C83.86	C83.87
C83.88	C83.89	C83.90	C83.91	C83.92	C83.93	C83.94
C83.95	C83.96	C83.97	C83.98	C83.99	C84.00	C84.01
C84.02	C84.03	C84.04	C84.05	C84.06	C84.07	C84.08
C84.09	C84.10	C84.11	C84.12	C84.13	C84.14	C84.15

C84.16	C84.17	C84.18	C84.19	C84.40	C84.41	C84.42
C84.43	C84.44	C84.45	C84.46	C84.47	C84.48	C84.49
C84.60	C84.61	C84.62	C84.63	C84.64	C84.65	C84.66
C84.67	C84.68	C84.69	C84.70	C84.71	C84.72	C84.73
C84.74	C84.75	C84.76	C84.77	C84.78	C84.79	C84.A0
C84.A1	C84.A2	C84.A3	C84.A4	C84.A5	C84.A6	C84.A7
C84.A8	C84.A9	C84.Z	C84.Z0	C84.Z1	C84.Z2	C84.Z3
C84.Z4	C84.Z5	C84.Z6	C84.Z7	C84.Z8	C84.Z9	C84.90
C84.91	C84.92	C84.93	C84.94	C84.95	C84.96	C84.97
C84.98	C84.99	C85.10	C85.11	C85.12	C85.13	C85.14
C85.15	C85.16	C85.17	C85.18	C85.19	C85.20	C85.21
C85.22	C85.23	C85.24	C85.25	C85.26	C85.27	C85.28
C85.29	C85.80	C85.81	C85.82	C85.83	C85.84	C85.85
C85.86	C85.87	C85.88	C85.89	C85.90	C85.91	C85.92
C85.93	C85.94	C85.95	C85.96	C85.97	C85.98	C85.99
C86.0	C86.1	C86.2	C86.3	C86.4	C86.5	C86.6
C88.0	C88.2	C88.3	C88.4	C88.8	C88.9	

## CURRENT CODING

### CPT:

78608	BRAIN IMAGING PET METABOLIC EVALUATION	Medicaid Expansion
78609	BRAIN IMAGING PET PERFUSION EVALUATION	Medicaid Expansion

78811	PET IMAGING LIMITED AREA CHEST HEAD/NECK	Medicaid Expansion
78812	PET IMAGING SKULL BASE TO MID-THIGH	Medicaid Expansion
78813	PET IMAGING WHOLE BODY	Medicaid Expansion
78814	PET IMAGING CT FOR ATTENUATION LIMITED AREA	Medicaid Expansion
78815	PET IMAGING CT ATTENUATION SKULL BASE MID-THIGH	Medicaid Expansion
78816	PET IMAGING FOR CT ATTENUATION WHOLE BODY	Medicaid Expansion
78608	BRAIN IMAGING PET METABOLIC EVALUATION	Commercial
78609	BRAIN IMAGING PET PERFUSION EVALUATION	Commercial
78811	PET IMAGING LIMITED AREA CHEST HEAD/NECK	Commercial
78812	PET IMAGING SKULL BASE TO MID-THIGH	Commercial
78813	PET IMAGING WHOLE BODY	Commercial
78814	PET IMAGING CT FOR ATTENUATION LIMITED AREA	Commercial
78815	PET IMAGING CT ATTENUATION SKULL BASE MID-THIGH	Commercial
78816	PET IMAGING FOR CT ATTENUATION WHOLE BODY	Commercial

**HCPCS:**

A9526	Nitrogen n-13 ammonia	Medicaid Expansion
A9552	F18 fdg	Medicaid Expansion
A9580	Sodium fluoride f-18	Medicaid Expansion
A9587	Gallium ga-68	Medicaid Expansion
A9588	Fluciclovine f-18	Medicaid Expansion
A9591	Fluoroestradiol f 18	Medicaid Expansion
A9595	Piflu f-18, dia 1 millicurie	Medicaid Expansion
A9596	Gallium illuccix 1 millicure	Medicaid Expansion
A9598	Pet dx for non-tumor id, noc	Medicaid Expansion



A9601	Flortaucipir inj 1 millicuri	Medicaid Expansion
A9602	Fluorodopa f-18 diag per mci	Medicaid Expansion
A9800	Gallium locametz 1 millicuri	Medicaid Expansion
C9067	Gallium ga-68 dotatoc	Medicaid Expansion
G0219	Pet img wholbod melano nonco	Medicaid Expansion
G0235	Pet not otherwise specified	Medicaid Expansion
G0252	Pet imaging initial dx	Medicaid Expansion
A9526	Nitrogen n-13 ammonia	Commercial
A9552	F18 fdg	Commercial
A9580	Sodium fluoride f-18	Commercial
A9587	Gallium ga-68	Commercial
A9588	Fluciclovine f-18	Commercial
A9591	Fluoroestradiol f 18	Commercial
A9595	Piflu f-18, dia 1 millicurie	Commercial
A9596	Gallium illuccix 1 millicure	Commercial
A9598	Pet dx for non-tumor id, noc	Commercial
A9601	Flortaucipir inj 1 millicuri	Commercial
A9602	Fluorodopa f-18 diag per mci	Commercial
A9800	Gallium locametz 1 millicuri	Commercial
C9067	Gallium ga-68 dotatoc	Commercial
G0219	Pet img wholbod melano nonco	Commercial
G0235	Pet not otherwise specified	Commercial
G0252	Pet imaging initial dx	Commercial

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## ND Committee Review

Internal Medical Policy Committee 5-19-2020 *Effective July 6, 2020*

- **Added** wording re: NCCN indications; **and**
- **Revised** statement under Prostate cancer from 'and' to 'or' for clarification

Internal Medical Policy Committee 9-21-2020 *Effective November 2, 2020*

- **Added** clearer definitions for Diagnosis; Initial Staging; Restaging; Surveillance; and Monitoring

Internal Medical Policy Committee 11-19-2020 Annual Review *Effective January 4, 2021*

Internal Medical Policy Committee 1-19-2021 Coding update: *Effective March 1, 2021*

- **Added** Procedure Code A9591

Internal Medical Policy Committee 3-17-2021 Coding update: *Effective May 3, 2021*

- **Added** Procedure Code C9067

Internal Medical Policy Committee 3-23-2022 Coding update - *Effective May 02, 2022*

- **Added** Procedure Code A9595

Internal Medical Policy Committee 7-21-2022 Coding update - *Effective July 01, 2022*

- **Added** Procedure codes A9596 and A9601 (specific to North Dakota)

Internal Medical Policy Committee 9-28-2022 Revision with Coding updates: *Effective October 01, 2022*

- **Added** New Procedure Codes A9602; A9607; A9800
  - Revision update - *Effective November 07, 2022*
  - **Updated** information regarding Prostate Cancer as no longer investigational

Internal Medical Policy Committee 3-23-2023 Revision - *Effective May 01, 2023*

- **Removed** Definitions from Policy Guidelines section; **and**
- **Added** Summary of Evidence

Internal Medical Policy Committee 7-26-2023 Coding update - *Effective August 01, 2023*

- **Removed** procedure code A9607

Internal Medical Policy Committee 5-14-2024 Revision - **Effective July 01, 2024**

- **Removed** 'and chest x-ray' from Lung cancer criteria section; and
- **Added** Policy Application

## Disclaimer

*Current medical policy is to be used in determining a Member's contract benefits on the date that services are rendered. Contract language, including definitions and specific inclusions/exclusions, as well as state and federal law, must be considered in determining eligibility for coverage. Members must consult their applicable benefit plans or contact a Member Services representative for specific coverage information. Likewise, medical policy, which addresses the issue(s) in any specific case, should be considered before utilizing medical opinion in adjudication. Medical technology is constantly evolving, and the Company reserves the right to review and update medical policy periodically.*