The Society of Nuclear Medicine Coding and Reimbursement working group approved the following Coding Frequently Asked Questions & SNM

Comments/Guidelines for PET/CT with Integrated Systems, Updated April 2007

INTRODUCTION

The coding and coverage for Positron Emission Tomography (PET) changed in 2005. On January 1, 2005 the American Medical Association (AMA) Current Procedural Terminology (CPT®) published the revised and updated codes for oncology PET and for PET/CT with an integrated system, (see table below for details.) This was a major change to keep current with the evolving technology and clinical practice of PET. In March and April 2005, the Centers for Medicare and Medicaid Services (CMS) announced the discontinuation of numerous G series PET codes and their acceptance of all PET AMA CPT codes.

Additionally, CMS clarified and expanded certain coverage criteria for PET, and introduced a new coverage process, Coverage with Evidence Development (CED), for those PET tumor imaging studies that CMS did not consider there was sufficient evidence for either a positive or negative coverage determination. On May 8, 2006, the National Oncologic PET Registry (NOPR) began accepting PET facility patients. For detailed Q & A’s see the SNM separate comments/guidelines NOPR consensus educational document.

With so many changes, the SNM working group has created this and other consensus FAQ & A’s. This is an evolving process. We encourage you to check back frequently. We will update our FAQ & Answers as new coding coverage and payment information becomes available.

2007 CPT® CODES NUCLEAR MEDICINE SECTION, JANUARY 1, 2007

<table>
<thead>
<tr>
<th>2007 CPT® Code</th>
<th>Comments</th>
<th>Long Description</th>
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<tbody>
<tr>
<td>78811</td>
<td>These new PET codes, similar to other nuclear medicine CPT codes, are by body area(s).</td>
<td>Tumor imaging, positron emission tomography (PET); <strong>limited area</strong> (eg, chest, head/neck)</td>
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<tr>
<td>78812</td>
<td>Tumor imaging, positron emission tomography (PET); <strong>skull base to mid-thigh</strong></td>
<td></td>
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<tr>
<td>78813</td>
<td>Tumor imaging, positron emission tomography (PET); <strong>whole body</strong></td>
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<tr>
<td>78814</td>
<td>These codes apply to studies done on a PET/CT Integrated device.</td>
<td>Tumor imaging, positron emission tomography (PET); with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization; <strong>limited area</strong> (eg, chest, head/neck)</td>
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A cross-reference in CPT® specifies that a separate diagnostic CT, if medically necessary, ordered and performed on the same day, can be billed in addition to these codes, with a 59-modifier.

Tumor imaging, positron emission tomography (PET with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization); skull base to mid-thigh

Billed Imaging, positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization; whole body

SNM PET and PET/CT Questions

**Question:** What is the difference between the PET and a PET/CT for anatomic localization procedure CPT® codes? Specifically, what is the CT part of the PET/CT used for?

**SNM comment:**

Good question—this is confusing even to many physicians ordering these studies. To clarify, the 2005 CPT PET/CT codes were developed to report a study performed concurrently (same imaging session) on a PET/CT integrated system. These integrated imaging systems are a single piece of equipment performing two different imaging technologies. In this case positron emission tomography (PET) and computed tomography (CT).

The AMA PET/CT CPT codes specifically describe the use of the CT portion of the PET/CT scan for attenuation correction (AC) and anatomic localization (AL) ONLY. To clarify, all PET (PET or PET/CT) procedures require attenuation correction; this is done with an external gamma source on non-integrated PET systems, and with CT on integrated PET/CT systems. Using CT for AC is faster and, from a patient perspective, easier. Additionally, CT used for attenuation correction may provide better AC data than other methods. Another advantage of PET/CT is that the CT image data may also be used for anatomical correlation. Thus, the CT data may be used for the purposes of fusing or co-registering the functional PET study with the anatomical CT portion of the study.

**Question:** We have a PET/CT Integrated System and the referring physician’s initial order states PET study. Can we perform and bill a PET/CT?

**SNM comment:**

The short answer is “no”, with a follow up comment. Providers should perform tests that are specifically ordered by the referring physician as well as clinically necessary.

PET/CT is a recently developed technology and its role in clinical oncology is evolving. This is somewhat similar to the initial implementation and adoption of Single Photon Emission Tomography (SPECT) for many now well-established uses in medicine. Education and discussion with referring physicians regarding PET/CT technology is necessary and strongly advised for the best care of referred patients.
If an order for a PET (not a PET/CT) is obtained, and your facility has a PET/CT, or both PET and PET/CT, we recommend you contact the referring physician to clarify the order. Verbal orders, e-mail or faxed orders may be taken with appropriate follow-up, should the referring physician decide to change the request.

**Question:** We have a PET/CT Integrated System. A referring physician has ordered a diagnostic CT & a PET/CT for anatomic localization on the same day. Our current PET/CT integrated system is capable of performing diagnostic CTs. How are these studies coded?

**SNM comment:**

Imaging technology and acquisition protocols for a diagnostic CT in addition to a PET/CT are under evolution. The SNM recognizes that there are various protocols and techniques available today that include acquisition of the diagnostic CT data at the same time as that for attenuation correction and anatomical localization, either before or after the completion of the PET/CT. Regardless of the technique and protocol, we recommend adhering to the AMA CPT guidelines as specified in the June 2005 CPT Assistant (Vol. 15, Issue 6, pg 10) that states, “providers should use the appropriate code from the 78814-78816 codes series to report the PET/CT procedure and also report separately for the diagnostic CT scan with Modifier 59, Distinct Procedural Service appended to the CT code for the appropriate anatomical area.”

We also recommend that when a diagnostic CT is done in addition to a PET/CT on SDOS, that (1) there be a separate report for the CT, (2) that the imaging protocol used for the acquisition of the CT data be included in the report, and (3) that the indication for the diagnostic CT be specifically stated in the report.

**Question:** Do the Medicare PET Coverage Guidelines from Transmittal 527 allow for a PET/CT and a diagnostic CT to be performed on the same day?

**SNM Comment:**

The current Medicare coverage guidelines for PET state, “PET studies should either replace conventional imaging procedures or complement inconclusive conventional procedures.” The Medicare guideline assumes the ordering physician has an opportunity for informed, sequential electivity.

In certain cases, based on medical necessity, it is clearly appropriate for a referring physician to order a diagnostic CT in addition to a PET/CT on the SDOS. For example, a CT study for trauma in the evening on the SDOS as a PET/CT that was done in the morning for restaging lymphoma. Obviously, reporting of a diagnostic CT when not requested or not medically indicated would not be appropriate.

The following, below and in quotes, is from CMS Transmittal 527 on PET coverage in tumor patients. The indications for a diagnostic CT study on the SDOS as a tumor PET study are not specifically described, but the underlying coverage concepts for PET differ for diagnosis, staging, restaging and monitoring.
purposes. We recommend that providers clearly describe the clinical indication for any diagnostic CT that is done in addition to a PET/CT on the SDOS. This should not be the exact same indication for the PET or PET/CT study, or if it is, the reason for the two studies should be explained.

From CMS Transmittal 527

"A. Definition:
For all uses of PET, excluding Rubidium 82 for perfusion of the heart, myocardial viability and refractory seizures, the following definitions apply:

• Diagnosis: PET is covered only in clinical situations in which the PET results may assist in avoiding an invasive diagnostic procedure, or in which the PET results may assist in determining the optimal anatomical location to perform an invasive diagnostic procedure. In general, for most solid tumors, a tissue diagnosis is made prior to the performance of PET scanning. PET scans following a tissue diagnosis are generally performed for the purpose of staging, rather than diagnosis. Therefore, the use of PET in the diagnosis of lymphoma, esophageal and colorectal cancers, as well as in melanoma, should be rare. PET is not covered for other diagnostic uses, and is not covered for screening (testing of patients without specific signs and symptoms of disease).

• Staging: PET is covered in clinical situations in which (1) (a) the stage of the cancer remains in doubt after completion of a standard diagnostic workup, including conventional imaging (computed tomography, magnetic resonance imaging, or ultrasound) or, (b) the use of PET would also be considered reasonable and necessary if it could potentially replace one or more conventional imaging studies when it is expected that conventional study information is insufficient for the clinical management of the patient and, (2) clinical management of the patient would differ depending on the stage of the cancer identified.

• Restaging: PET will be covered for restaging: (1) after the completion of treatment for the purpose of detecting residual disease, (2) for detecting suspected recurrence, or metastasis, (3) to determine the extent of a known recurrence, or (4) if it could potentially replace one or more conventional imaging studies when it is expected that conventional study information is to determine the extent of a known recurrence, or if study information is insufficient for the clinical management of the patient. Restaging applies to testing after a course of treatment is completed and is covered subject to the conditions above.

• Monitoring: Use of PET to monitor tumor response to treatment during the planned course of therapy (i.e., when a change in therapy is anticipated).

B - Limitations
For staging and restaging: PET is covered in either/or both of the following circumstances:

• The stage of the cancer remains in doubt after completion of a standard diagnostic workup, including conventional imaging (computed tomography, magnetic resonance imaging, or ultrasound); and/or

• The clinical management of the patient would differ depending on the stage of the cancer identified.

• PET will be covered for restaging after the completion of treatment for the purpose of detecting residual disease, for detecting suspected recurrence, or to determine the extent of a known recurrence.

• Use of PET would also be considered reasonable and necessary if it could potentially replace one or more conventional imaging studies when it is expected that conventional study information is insufficient for the clinical
management of the patient.
• The PET is not covered for other diagnostic uses, and is not covered for screening (testing of patients without specific symptoms). Use of PET to monitor tumor response during the planned course of therapy (i.e. when no change in therapy is being contemplated) is not covered."

Clinical necessity as evidenced by the referring physician order will help determine if a diagnostic CT is indicated with a PET/CT procedure. There should be ongoing communication with referring physicians regarding PET/CT technology for the best care of the patients referred.

**Question:** What clinical indications does Medicare cover for PET procedures?

**SNM Comment:**

Please refer to the Medicare National Coverage Determinations Manual Section 220.6 for specific coverage language and limitations for each indication at:

Additionally, we recommend that providers locate and maintain current local coverage (LCD) policies for PET procedures; these often list the covered ICD 9 CM codes along with additional coding or billing information.

**Question:** Are there frequency limits for PET procedures?

**SNM comment:**

Yes. We are aware of some carriers who have placed frequency limits on some current nationally covered PET indications. Providers must abide by these limits. For these frequency limit studies, providers would use the traditional ABN process. CMS on a national level has stayed silent regarding frequency limits; therefore, local carriers may implement frequency limits for both covered and NOPR indications.

**Question:** Where can I find the Medicare coding guidelines for PET?

**SNM Comment:**

Please refer to the Medicare Claims Processing Manual, Chapter 13, and Section 60 at:

**Question:** Can I report 3D rendering in addition to a PET and PET/CT for anatomic localization procedure if the report documents this was completed?

**SNM comment:**

NO. CPT codes 76376 (3D rendering with interpretation and reporting of computed tomography, magnetic resonance imaging, ultrasound, or other tomographic modality; not requiring image postprocessing on an independent...
workstation), 76377 (3D rendering with interpretation and reporting of computed
tomography, magnetic resonance imaging, ultrasound, or other tomographic
modality; requiring image postprocessing on an independent workstation) or any
other 3-D CPT code should NOT be billed with PET, PET/CT or for any nuclear
medicine procedures including SPECT nuclear medicine procedures. The reason is
that a PET, PET/CT and SPECT nuclear medicine procedures already have this
value accounted for in reimbursement for the base code.

**Question:** Is a modifier required for either a PET or PET/CT for anatomic
localization performed on the same day as a diagnostic CT procedure(s), and
where do I place the modifier?

**SNM comment:**

YES. As stated in a CPT parenthetical, located below CPT 78816, “(Computed
Tomography (CT) performed for other than attenuation and anatomical
localization is reported using the appropriate site-specific CT code with
modifier 59).” We recognize this CPT guideline specifically applies to CPT
codes 78814-78816. However, National Correct Coding Initiative (NCCI) edits
were implemented October 1, 2005 for reporting of diagnostic CT with either PET
or PET/CT performed on Medicare patients on the same day. Therefore, we
recommend use of this modifier applied to the diagnostic CT(s) performed on the
SDOS of either a PET or a PET/CT. The modifier 59 Distinct Procedural Service
is appended to the diagnostic CT code for the appropriate anatomical area and
not to the PET or PET/CT for anatomic localization CPT code.

**Question:** How do I code PET/CT of the brain used for evaluating tumor response
to therapy? Can I use the PET/CT code 78814?

**SNM comment:**

No. For PET brain imaging with a PET/CT or a PET scanner providers use CPT
78608 Brain imaging, positron emission tomography (PET); metabolic evaluation.
Similar to other nuclear medicine codes, when there is a specific body area
code you default to the body area such as in this case of PET Brain imaging. At
present there is no literature that we are aware of to support coding a PET/CT
for brain imaging.

**Question:** Can I code and bill for two oncology PET procedures on the same date of service
(SDOS)?

**SNM comment:**

The answer is both no and yes. CPT guidance is clear in the CPT parenthetical following the PET tumor
codes: "report 78811-78816 only once per imaging session". Therefore, providers may use one CPT code
in the series 78811-78816 when billing PET tumor imaging.

" NO ": As an example, it would not be appropriate to code and bill for both a limited bone scan (CPT
78300) and a whole body study (CPT 78306). The limited study is considered part of the whole body study.
In general, when the AMA RUC (RUC stands for Relative Update Committee) values CPT codes, it does
so on the basis of a typical study (including additional views). Providers should choose the appropriate
code to reflect the body area imaged. Even if the brain is included in an extended "skull base to mid thigh"
study, the code for brain imaging should not be used in addition to CPT 78812 or 78815.
"YES" - If a separate brain PET is indicated and requested in addition to a PET or PET/CT body study (CPT 78811-78816), then it may be appropriate to submit two CPT codes. An example would be a patient with breast cancer that is metastatic to the brain with a residual enhancing lesion on MRI after stereotactic radiosurgery, and a dedicated brain PET procedure is requested for evaluation of "viable tumor versus radiation necrosis", and a PET/CT of the skull base to mid thigh is requested for restaging to assess for evidence of progression at other sites. This would be coded as CPT 78608 with modifier-59 for the brain study and 78815 for the torso study. (If this is a Medicare patient and the site participates in NOPR, then add the QR modifier to the brain study, because brain tumor studies are only covered nationally under NOPR. If this is a Medicare patient and your imaging facility does NOT participate in NOPR, use code G0235 (PET imaging, any site, not otherwise specified) for Medicare non-covered PET services. If this is a third party other than Medicare check with the payer, for the correct coding could be either CPT 78608-59 or the G0235 code.)

**Question:** Do I code and bill separately using CPT® or HCPCS Level II codes for the PET radiopharmaceuticals?

**SNM comment:**

The SNM Coding and Reimbursement Committee has a long-standing consensus opinion that all facilities should code and bill separately for all radiopharmaceuticals and other drugs used with any nuclear medicine procedure. The consensus opinion holds true whether or not the payment for the radiopharmaceutical has been bundled by the third party payer into the procedure or is paid separately.

At present, for Medicare hospital outpatients, coding and billing for the PET radiopharmaceutical will yield a separate additional payment. For Medicare patients in the physician office or independent diagnostic testing facility (IDTF), carriers have the discretion to set a bundled rate or pay separately for radiopharmaceuticals. With the DRA most all carriers, with the exception of Highmark in Pennsylvania now paid separately for FDG. We recommend that you check with your payer regarding payment. However, we continue to recommend you code and bill separately for all radiopharmaceuticals (both PET and non-PET) to sustain a nation wide record of the costs for those products.

Please note the introductory paragraph in the Nuclear Medicine CPT 78 000 Section, which specifically states that the radiopharmaceutical is not part of the CPT code, and that providers should code separately for these in addition to the CPT procedure code.

In 2005, CPT deleted codes 78990 and 79900 provision for diagnostic and therapeutic radiopharmaceuticals. In 2006, CMS published over fifty HCPCS Level II codes that describe many of the available radiopharmaceuticals including all the covered PET radiopharmaceuticals. Additionally, two codes A4641 and A9699 are for not otherwise classified (NOC) radiopharmaceutical, one each for diagnostic and therapeutic. These NOC codes can be used when there is no specific listed code for a radiopharmaceutical.

With the exception of the HCPCS Level II C Series codes (which are for the Hospital Out-Patient Prospective Payment System exclusively), we expect that most third party payers will accept the series A HCPCS Level II codes in place of deleted CPT 78990 and CPT 79900 codes. We encourage you to work with your payers to determine the proper choice of HCPCS level II supply codes for your radiopharmaceuticals.
Question: We have a PET only system, but we acquire a CT for fusion following the PET scan. Can we use the PET/CT CPT codes 78814-78816? Additionally, we are fusing PET scans with both CT and MRI studies NOT acquired concurrently with integrated systems, how do we code for these studies including the fused images?

SNM comment:

You may NOT use the CPT codes 78814-78816 for PET studies performed on separate pieces of equipment. These CPT codes are only to be used when a procedure is performed on a PET/CT integrated system. They do NOT apply to software-fused studies on separate equipment.

However, if ordered, clinically indicated and if separate interpretations are given, it may be appropriate to code for the PET, CT, or MRI and fused anatomic localization studies separately. The PET, CT or MRI study are coded and charged for separately from the fusion anatomic localization procedure. Check the payer for coding and payment criteria for each fusion procedure.

Currently, Medicare has no policy regarding software fusion for anatomical localization. Since there currently is no CPT code that accurately describes the software fusion of PET with non-concurrently acquired modalities such as CT, SPECT or MRI, separately code the fusion imaging study using the "unlisted nuclear medicine procedure" code. CPT 78999.

Question: What are the current payments for Medicare patients including the new “coverage with evidence development” (CED) for PET and PET/CT studies?

SNM comment:

The SNM publishes the current Medicare National payments on their web site. Additionally CMS published this information at www.cms.hhs.gov or on your local carrier or fiscal intermediary web site. You can locate the SNM educational materials at www.snm.org, select practice management and go to either the hospital educational or physician office educational web pages for the pertinent national payment information.

At present, the technical and global components in the physician office and independent diagnostic testing facility setting for PET and PET/CT studies are established by the individual carriers or mandated by the DRA and paid through the HOPPS CAP CMS published local rates. Many of the contractors have published all PET and PET/CT rates on their web sites in a variety of locations, e.g, fee calculators, bulletins and coding guidelines. Contact your local carrier for your specific rates and be aware of the DRA affected codes.

Regarding CED (formerly referred to as “PET Data Registry”) now known as the National Oncologic PET Registry (NOPR) for certain PET indications, and for those PET facilities participating in NOPR, payment is the same as for the
covered PET indications and assigned based on the CPT code. Facilities that participate in NOPR pay a one time $50.00 facility fee and a per patient $50.00 fee to participate in the PET registry. Those interested in more information on NOPR should visit www.cancerPETregistry.org or see the SNM workgroup Q & A for more detailed billing information for NOPR patients.

**Question:** What qualifications are required to read a PET/CT procedure?

**SNM Comment:**
Training qualifications to read a PET and or PET/CT vs. CT study have been addressed by the Society of Nuclear Medicine, American College of Radiology and the Society of Computed Body Tomography and Magnetic Resonance in a white paper published in the July 2005 Journal of Nuclear Medicine (J Nucl Med 2005; 46:1225-1239). The purpose of the white paper was to define the issues surrounding implementation and use of PET/CT and to use the paper as a framework for expanding relevant discussion.

**Question:** I am interested in finding out what is the best revenue code to use for PET/CT procedures.

**SNM Comment:**
There are three possible revenue codes for hospitals to use when billing PET/CT procedures, 0404 Other Imaging Services, Positron Emission Tomography, 0341 Nuclear Medicine Diagnostic Procedure and 0340 Nuclear Medicine General. Several Fiscal Intermediaries (FI) have specifically stated in their instructions for hospitals to use 0404 while other FIs have stayed silent and left the choice to the facility. The SNM recommends that you check first with your FI instructions and second with your finance department to utilize the most appropriate revenue code that fits your facility FI instructions and accounting practices.

**Question:** We are fusing PET scans with CT, and MRI studies not acquired concurrently, how do we code for these studies including the fused images?

**SNM Comment:**
If separately ordered, clinically indicated and if separate interpretations are given, it may be appropriate to code for the PET, CT, or MRI and fused anatomic localization studies separately, check the payer coding requirements for each modality. The PET, CT or MRI study are coded and charged for separately from the fusion anatomic localization study.

Medicare has no policy regarding software fusion for anatomical localization. Since there is no CPT code that accurately describes the software fusion of PET with non-concurrently acquired modalities such as CT, SPECT or MRI, separately code the fusion imaging study using the "unlisted nuclear medicine procedure" code. The 2006 CPT code for 78999 is Unlisted miscellaneous procedure,
**Question:** We have a PET/CT scanner and want to know if we can bill for both the CT and the PET scan when doing a study that fuses these two modalities?

**SNM comment:**

The PET/CT and the diagnostic CT scans may be billed, if both scans are ordered, medically necessary, interpreted and reported separately. If the patient had a recent CT scan, it may be inappropriate to perform and charge for the additional CT scan unless there has been a change in patient status. The CT study is coded and charged for separately from the PET/CT fusion anatomic localization study only when a complete CT study is performed.

January 1, 2005 CPT introduced three new tumor imaging PET with concurrently acquired CT for attenuation correction CPT codes 78814–78816. Check with non-Medicare payers regarding the use of these codes, we are aware that most private payers are using these PET/CT CPT codes. Effective January 28, 2005 Medicare adopted the new PET and PET/CT CPT codes and discontinued the use of many complex G codes. Three G HCPCS Level II codes remain for Medicare non-covered PET indications.

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**Disclaimer**

The opinions referenced are those of the members of the SNM Coding and Reimbursement Working Group and their consultants based on their coding experience and they are provided without charge to the profession. They are based on the commonly used codes in Nuclear Medicine, which are not all inclusive. Always check with your local insurance carriers as policies vary by region. The final decision for the coding of a procedure must be made by the physician considering regulations of insurance carriers and any local, state or federal laws that apply to the physician’s practice. The SNM and its representatives disclaim any liability arising from the use of these opinions.