# Medicare Claims Processing Manual
## Chapter 13 - Radiology Services and Other Diagnostic Procedures

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*(Rev. 3650, 11-10-16)*

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Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid
Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10
Implementation: ASC X12: November 10, 2014 Fluorodeoxyglucose (FDG) Positron
Emission Tomography (PET) for Solid Tumors: May 19, 2014 - MAC Non-Shared
System Edits; July 7, 2014 - CWF development/testing, FISS requirement
development; October 6, 2014 - CWF, FISS, MCS Shared System Edits), ICD-10:
Upon Implementation of ICD-10)

The ICD Coding Guidelines for Outpatient Services (hospital-based and physician office)
have instructed physicians to report diagnoses based on test results. Instructions and
templates for coding specialists, contractors, physicians, hospitals, and other health care
providers to use in determining the use of ICD codes for coding diagnostic test results is
found in chapter 23.

10.1 - Billing Part B Radiology Services and Other Diagnostic
Procedures
(Rev. 1, 10-01-03)

Acceptable HCPCS codes for radiology and other diagnostic services are taken primarily
from the CPT-4 portion of HCPCS. Payment is the lower of the charge or the Medicare
physician fee schedule amount. Deductible and coinsurance apply, and coinsurance is
based on the allowed amount.

For claims to A/B MACs (A) or (HHH), revenue codes, HCPCS code, line item dates of
service, units, and applicable HCPCS modifiers are required. Charges must be reported
by HCPCS code. If the same revenue code applies to two or more HCPCS codes,
providers should repeat the revenue code and show the line item date of service, units,
and charge for each HCPCS code on a separate line.

20 - Payment Conditions for Radiology Services
(Rev. 1, 10-01-03)
B3-15022

20.1 - Professional Component (PC)
(Rev. 1, 10-01-03)

A/B MACs (B) must pay for the PC of radiology services furnished by a physician to an
individual patient in all settings under the fee schedule for physician services regardless
of the specialty of the physician who performs the service. For services furnished to
hospital patients, A/B MACs (B) pay only if the services meet the conditions for fee
schedule payment and are identifiable, direct, and discrete diagnostic or therapeutic
services to an individual patient, such as an interpretation of diagnostic procedures and
the PC of therapeutic procedures. The interpretation of a diagnostic procedure includes a
written report.
20.2 - Technical Component (TC)  
(Rev. 1, 10-01-03)  

20.2.1 - Hospital and Skilled Nursing Facility (SNF) Patients  
(Rev. 1782; Issued: 07-30-09; Effective Date: 07-01-09; Implementation Date: 07-06-09)  

A/B MACs (B) may not pay for the technical component (TC) of radiology services furnished to hospital patients. Payment for physicians’ radiological services to the hospital, e.g., administrative or supervisory services, and for provider services needed to produce the radiology service, is made by the AB MAC (A) to the hospital as a provider service.  

AB MACs (A) include the TC of radiology services for hospital inpatients, except Critical Access Hospitals (CAHs), in the prospective payment system (PPS) payment to hospitals.  

Hospital bundling rules exclude payment to suppliers of the TC of a radiology service for beneficiaries in a hospital inpatient stay. CWF performs reject edits to incoming claims from suppliers of radiology services.  

Upon receipt of a hospital inpatient claim at the CWF, CWF searches paid claim history and compares the period between the hospital inpatient admission and discharge dates to the line item service date on a line item TC of a radiology service billed by a supplier. The CWF will generate an unsolicited response when the line item service date falls within the admission and discharge dates of the hospital inpatient claim.  

Upon receipt of an unsolicited response, the A/B MAC (B) will adjust the TC of the radiology service and recoup the payment.  

For CAHs, payment to the CAH for inpatients is made at 101 percent of reasonable cost.  

Radiology and other diagnostic services furnished to hospital outpatients are paid under the Outpatient Prospective Payment System (OPPS) to the hospital. This applies to bill types 12X and 13X that are submitted to the AB MAC (A). Effective 4/1/06, type of bill 14X is for non-patient laboratory specimens and is no longer applicable for radiology services.  

As a result of SNF Consolidated Billing (Section 4432(b) of the Balanced Budget Act (BBA) of 1997), A/B MACs (B) may not pay for the TC of radiology services furnished to Skilled Nursing Facility (SNF) inpatients during a Part A covered stay. The SNF must bill radiology services furnished its inpatients in a Part A covered stay and payment is included in the SNF Prospective Payment System (PPS).
Radiology services furnished to outpatients of SNFs may be billed by the supplier performing the service or by the SNF under arrangements with the supplier. If billed by the SNF, Medicare pays according to the Medicare Physician Fee Schedule. SNFs submit claims to the AB MAC (A) with type of bill 22X or 23X.

20.2.2 - Services Not Furnished in Hospitals  
(Rev. 1, 10-01-03)

A/B MACs (B) must pay under the fee schedule for the TC of radiology services furnished to beneficiaries who are not patients of any hospital, and who receive services in a physician’s office, a freestanding imaging or radiation oncology center, or other setting that is not part of a hospital.

20.2.3 - Services Furnished in Leased Departments  
(Rev. 1, 10-01-03)

In the case of procedures furnished in a leased hospital radiology department to a beneficiary who is neither an inpatient nor an outpatient of any hospital, e.g., the patient is referred by an outside physician and is not registered as a hospital outpatient, both the PC and the TC of the services are payable under the fee schedule by the A/B MAC (B).

20.3 – Anti-Markup Payment Limitation  
(Rev. 1931, Issued: 03-12-10, Effective: 06-14-10, Implementation: 06-14-10)

Section 1842(n)(1) of the Social Security Act (the Act) establishes payment rules for certain diagnostic tests (other than clinical diagnostic laboratory tests) where the physician performing or supervising the test does not share a practice with the billing physician or other supplier. Examples of tests covered under this rule include, but are not limited to: x-rays, EKGs, EEGs, cardiac monitoring, and ultrasound services furnished on or after January 1, 1994. (Note that screening mammography services are covered under another provision of the Act and are not subject to the anti-markup payment limitation.) The anti-markup payment limitation applies to the technical component or “TC” of certain diagnostic tests that are payable on the Medicare Physician Fee Schedule (MPFS). Effective January 1, 2009, the anti-markup payment limitation also applies to the professional component or (“PC”) of diagnostic tests (other than clinical diagnostic tests). The anti-markup payment limitation only applies when a physician (or other supplier) orders and bills for a diagnostic test in which the TC or PC is performed by a physician who does not “share a practice” with the ordering/billing physician (or other supplier). For more information on the anti-markup payment limitation, see chapter 1, §30.2.9.

20.3.1 – A/B MAC (B) Payment Rules  
(Rev. 1931, Issued: 03-12-10, Effective: 06-14-10, Implementation: 06-14-10)

If a diagnostic test (other than a clinical diagnostic laboratory test) is personally performed or is supervised by a physician, such physician may bill under the normal physician fee schedule rules. This includes situations in which the test is performed or
supervised by another physician with whom the billing physician shares a practice (see Pub. 100-04, chapter 1, §30.2.9). Section 80, chapter 15, of Pub. 100-02, Medicare Benefit Policy, sets forth the various levels of physician supervision required for diagnostic tests. The supervision requirement for physician billing is not met when the test is administered by supplier personnel regardless of whether the test is performed at the physician's office or at another location.

If a physician bills for a diagnostic test that is subject to the anti-markup payment limitation, the fee schedule amount for the acquired service equals the lower of:

- The performing physician or other supplier’s net charge to the billing physician or other supplier for performing the service;
- The billing physician or other supplier’s actual charge; or
- The fee schedule amount allowed for the jurisdiction where the service was performed.

The lowest figure is the fee schedule amount for purposes of the limiting charge. (See chapter 1, §30.3.12.1 of this publication) The billing entity must identify the performing physician or other supplier (including the performing provider’s NPI) and the amount the performing physician or other supplier charged the billing entity (net of any discounts). A physician who accepts assignment is permitted to bill and collect from the beneficiary only the applicable deductible and coinsurance for the acquired test. A physician who does not accept assignment is permitted to bill and collect from the beneficiary only the fee schedule amount (as defined above) for the acquired test. The limiting charge provision is not applicable.

If the physician does not identify who performed the test and provide the other required information, no payment is allowed. The physician may not bill the beneficiary any amount for the test.

20.3.2 - Billing for Services
(Rev. 1931, Issued: 03-12-10, Effective: 06-14-10, Implementation: 06-14-10)

A physician or other supplier may bill and receive Part B payment for the technical component (TC) or professional component (PC) of diagnostic tests which the physician or other supplier contracts a physician, medical group, or other supplier to perform. (This claim and payment procedure does not extend to clinical diagnostic laboratory tests.) The anti-markup rule will apply to the TC or PC of diagnostic tests that have been ordered by the billing physician or other supplier (or by a party financially related to the billing physician or other supplier through common ownership or control) if the performing physician or other supplier does not meet the criteria for “sharing a practice” with the ordering/billing entity. An example is when the attending physician orders radiology tests from a radiologist and the radiologist purchases the tests from an imaging center with whom the radiologist does not meet the criteria for “sharing a practice.” Under the
anti-markup payment limitation, the billing physician or other supplier may not mark up the charge for a test from the acquisition price and must accept as full payment for the test (even if assignment is not accepted) the lowest of: the fee schedule amount as if the performing physician or other supplier had billed directly, the billing entity’s actual charge, or the performing physician or other supplier’s net charge to the billing entity. The billing physician or other supplier must be financially related to the physician or group that ordered the tests through common ownership or control.

If the performing physician or other supplier meets the criteria for “sharing a practice” with the billing physician or other supplier, then the anti-markup payment limitation will not apply and the lower of the physician fee schedule amount or the billed amount will be paid.

The physician or other supplier that performed the component that is subject to the anti-markup rule must be enrolled in the Medicare program. No formal reassignment is necessary; however, reassigned services are also subject to the anti-markup payment limitation.

A. Radiology Services

Contractors shall apply the anti-markup payment limitation to the TC and PC of radiology diagnostic testing services other than screening mammography procedures. See Publication 100-04, chapter 1, §30.2.9 for more information on the anti-markup payment limitation.

B. Payment to a Physician or Other Supplier of Diagnostic Tests for Services Subject to the Anti-Markup Payment Limitation

A physician or other supplier that provides diagnostic tests may bill and receive the Part B payment for the TC or PC of diagnostic tests which that physician or other supplier acquires from another physician, medical group, or other supplier. If the performing physician does not meet the requirements for sharing a practice with the ordering/billing physician or other supplier, then the anti-markup payment limitation rules will apply. (See section 30.2.9 of this chapter for more information.) If the performing physician is deemed to share a practice with the physician or other supplier that ordered the test, then the physician fee schedule amount may be billed and the anti-markup payment limitation will not apply. In either case, the performing physician or other supplier must be enrolled in the Medicare program. No formal reassignment is necessary; however, the anti-markup payment limitation will apply to reassigned services.

If the anti-markup rules apply, payment may not exceed the lowest of the following amounts:

- The performing physician or other supplier’s net charge to the billing physician or other supplier;*
• The billing physician or other supplier’s actual charges; or
• The fee schedule amount allowed for the test if the performing physician or other supplier billed directly.

*The net charge must be determined without regard to any charge that is intended to reflect the cost of equipment or space leased to the performing physician or supplier by or through the billing entity. For more information, see Pub. 100-04, chapter 1, §30.2.9.

The billing physician or other supplier must keep on file the name, address, and NPI of the physician or other supplier who performed the anti-markup service.

C. Sanctions

Physicians who knowingly and willfully, in repeated cases, bill Medicare beneficiaries amounts beyond those outlined in this chapter are subject to the penalties contained under §1842(j)(2) of the Act. Penalties are assigned after post-pay review depending on the severity.

D. Questionable Business Arrangements

No special charge or payment constraints are imposed on tests performed by a physician or a technician under the physician’s supervision. There are two requirements for all diagnostic tests under §1861(s)(3) of the Act, as implemented by 42 CFR §410.32 and section 10 of chapter13 of this publication and section 80, chapter 15 of Pub. 100-02BP. Namely, the test must be ordered by the treating practitioner, and the test must be supervised by a physician. However, attempts may be made by the medical diagnostic community to adjust or establish arrangements which continue to allow physicians to profit from other’s work or by creating the appearance that the physician has performed or supervised his/her technicians who are employed, contracted, or leased. Some of these arrangements may involve cardiac scanning services and mobile ultrasound companies leasing their equipment to physicians for the day the equipment is used, and hiring out their staff to the physicians to meet the supervision requirement.

The bona fides of such arrangements may be suspect and could be an attempt to circumvent the anti-markup payment limitation. If you have any doubt that a particular arrangement is a valid relationship where the physician is performing or supervising the services, this should be investigated. The Office of the Inspector General (OIG) has responsibility for investigating violations of §1842(n) of the Act.

Another arrangement to circumvent the anti-markup payment limitation is for the ordering physician to reassign his/her payment for the interpretation of the test to the supplier. The supplier, in turn, bills for both the test and the interpretation and pays the ordering physician a fee for the interpretation. This arrangement violates §1842(b)(6) of the Act, which prohibits Medicare from paying benefits due the person that furnished the service to any other person, subject to limited exceptions discussed in Pub. 100-04,
chapter 1, §30.2.2. Also, this arrangement could constitute a violation of §1128 B (b) of the Act, which prohibits remuneration for referrals (i.e., kickbacks).

Violations of §1128B (b) of the Act may subject the physician or supplier to criminal penalties or exclusion from the Medicare and Medicaid programs. Illegal remuneration for referrals can be found even when the ordering physician performs some service for the remuneration.

30 - Computerized Axial Tomography (CT) Procedures (Rev. 1, 10-01-03)

A/B MACs (B) do not reduce or deny payment for medically necessary multiple CT scans of different areas of the body that are performed on the same day.

The TC RVUs for CT procedures that specify “with contrast” include payment for high osmolar contrast media. When separate payment is made for low osmolar contrast media under the conditions set forth in §30.1.1, reduce payment for the contrast media as set forth in §30.1.2.

30.1 - Low Osmolar Contrast Media (LOCM) (HCPCS Codes Q9945-Q9951) (Rev. 627, Issued: 07-29-05, Effective: 01-01-05, Implementation: 10-31-05)

HCPCS codes A4644-A4646 have been replaced with Q9945-Q0051.

30.1.1 - Payment Criteria (Rev. 627, Issued: 07-29-05, Effective: 01-01-05, Implementation: 10-31-05)

A/B MACs (B) make separate payments for LOCM (HCPCS codes Q9945-Q9951) in the case of all medically necessary intrathecal radiologic procedures furnished to nonhospital patients. Effective January 1, 2005 in the case of intraarterial and intravenous radiologic procedures, the five restrictive criteria (a history of previous adverse reaction to contrast material, with the exception of a sensation of heat, flushing, or a single episode of nausea or vomiting; a history of asthma or allergy; significant cardiac dysfunction including recent or imminent cardiac decompensation, severe arrhythmia, unstable angina pectoris, recent myocardial infarction, and pulmonary hypertension; generalized severe debilitation; or sickle cell disease) for the payment of LOCM are eliminated.

30.1.2 - Payment Level (Rev. 627, Issued: 07-29-05, Effective: 01-01-05, Implementation: 10-31-05)

Determine payment in the same manner as for a drug furnished incident to a physician’s service.
The payment methodology for LOCM for the period of January 1, 2005 through March 31, 2005 is made in accordance with the established payment for calendar year 2004 using codes A4644-A4646.

Effective April 1, 2005, the method of payment for LOCM is the average sales price (ASP) plus six percent in accordance with the standard methodology for drug pricing established by the Medicare Modernization Act (MMA0 for other than hospital outpatient claims. Payments for the new Q codes can be found in the respective quarterly Medicare Part B drug pricing files that are posted on the CMS Web site.

**30.1.3 - SNF Billing and A/B MAC (A) Payment for Contrast Material Other Than Low Osmolar Contrast Material (LOCM) (Radiology) (Rev. 1, 10-01-03)**

When a radiology procedure is provided with contrast material, a SNF should bill using the CPT-4 code that indicates “with” contrast material. If the coding does not distinguish between “with” and “without” contrast material, the SNF should use the available code.

Contrast material other than LOCM may be billed separately in addition to the radiology procedure, or it may be billed as part of the amount for the radiology procedure. If the SNF bills separately for the contrast material and the charge for the procedure includes a charge for contrast material, the SNF must adjust the charge for the procedure to exclude any amount for the contrast material. Regardless of the billing method used, charges are subject to the fee schedule.

When billing separately for this contrast material, the SNF should use revenue code 0255 (drugs incident to radiology and subject to the payment limit) and report the charge on the same bill as the radiology procedure. The A/B MAC (A) will not accept late charge bills for this service.

**30.1.3.1 - A/B MAC (A) Payment for Low Osmolar Contrast Material (LOCM) (Radiology)**

(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012

The LOCM is paid on a reasonable cost basis when rendered by a SNF to its Part B patients (in addition to payment for the radiology procedure) when it is used in one of the situations listed below.

The following HCPCS are used when billing for LOCM.
HCPCS Code  Description (January 1, 1994, and later)
A4644  Supply of low osmolar contrast material (100-199 mgs of iodine);
A4645  Supply of low osmolar contrast material (200-299 mgs of iodine); or
A4646  Supply of low osmolar contrast material (300-399 mgs of iodine).

When billing for LOCM, SNFs use revenue code 0636. If the SNF charge for the radiology procedure includes a charge for contrast material, the SNF must adjust the charge for the radiology procedure to exclude any amount for the contrast material.

NOTE: LOCM is never billed with revenue code 0255 or as part of the radiology procedure.

The A/B MAC (A) will edit for the intrathecal procedure codes and the following codes to determine if payment for LOCM is to be made. If an intrathecal procedure code is not present, or one of the ICD codes is not present to indicate that a required medical condition is met, the A/B MAC (A) will deny payment for LOCM. In these instances, LOCM is not covered and should not be billed to Medicare.

When LOCM Is Separately Billable and Related Coding Requirements

- In all intrathecal injections. HCPCS codes that indicate intrathecal injections are:
  70010  70015  72240  72255  72265  72270  72285  72295

  One of these must be included on the claim; or

- In intravenous and intra-arterial injections only when certain medical conditions are present in an outpatient. The SNF must verify the existence of at least one of the following medical conditions, and report the applicable diagnosis code(s) either as a principal diagnosis code or other diagnosis codes on the claim:
  
  o A history of previous adverse reaction to contrast material. The applicable ICD-9-CM codes are V14.8 and V14.9. The applicable ICD-10-CM codes are Z88.8 and Z88.9. The conditions which should not be considered adverse reactions are a sensation of heat, flushing, or a single episode of nausea or vomiting. If the adverse reaction occurs on that visit with the induction of contrast material, codes describing hives, urticaria, etc. should also be present, as well as a code describing the external cause of injury and poisoning, ICD-9-CM code E947.8. The applicable ICD-10 CM codes are: T50.8X5A Adverse effect of diagnostic agents, initial encounter, T50.8X5S Adverse effect of diagnostic agents, sequela , T50.995A Adverse effect of other drugs, medicaments and biological substances, initial encounter, or T50.995S Adverse effect of other drugs, medicaments and biological substances, sequela;
- A history or condition of asthma or allergy. The applicable ICD-9-CM codes are V07.1, V14.0 through V14.9, V15.0, 493.00, 493.01, 493.10, 493.11, 493.20, 493.21, 493.90, 493.91, 495.0, 495.1, 495.2, 495.3, 495.4, 495.5, 495.6, 495.7, 495.8, 495.9, 995.0, 995.1, 995.2, and 995.3. The applicable ICD-10-CM codes are in the table below:

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- Significant cardiac dysfunction including recent or imminent cardiac decompensation, severe arrhythmia, unstable angina pectoris, recent myocardial infarction, and pulmonary hypertension. The applicable ICD-9-CM codes are:

<table>
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<tr>
<th>ICD-9-CM</th>
<th>402.00</th>
<th>402.01</th>
<th>402.10</th>
<th>402.11</th>
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The applicable ICD-10-CM codes are in the table below:

<table>
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<th>ICD-10-CM Codes</th>
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<td>I50.43</td>
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<td>I51.4</td>
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<tr>
<td>I97.110</td>
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<tr>
<td>I97.191</td>
</tr>
</tbody>
</table>

Generalized severe debilitation. The applicable ICD-9-CM codes are: 203.00, 203.01, all codes for diabetes mellitus, 518.81, 585, 586, 799.3, 799.4, and V46.1. The applicable ICD-10-CM codes are: J96.850, J96.00 through J96.02, J96.90 through J96.91, N18.1 through N19, R53.81, R64, and Z99.11 through Z99.12. Or

Sickle Cell disease. The applicable ICD-9-CM codes are 282.4, 282.60, 282.61, 282.62, 282.63, and 282.69. The applicable ICD-10-CM codes
Effective September 28, 2009

The Centers for Medicare & Medicaid Services (CMS) finds that the non-coverage of magnetic resonance imaging (MRI) for blood flow determination is no longer supported by the available evidence. CMS is removing the phrase “blood flow measurement” and local Medicare contractors will have the discretion to cover (or not cover).

Consult Publication (Pub.) 100-03, National Coverage Determinations (NCD) Manual, chapter 1, section 220.2, for specific coverage and non-coverage indications associated with MRI and MRA (Magnetic Resonance Angiography).

Prior to January 1, 2007

A/B MACs (B) do not make additional payments for three or more MRI sequences. The relative value units (RVUs) reflect payment levels for two sequences.

The technical component (TC) RVUs for MRI procedures that specify “with contrast” include payment for paramagnetic contrast media. A/B MACs (B) do not make separate payment under code A4647.

A diagnostic technique has been developed under which an MRI of the brain or spine is first performed without contrast material, then another MRI is performed with a standard (0.1mmol/kg) dose of contrast material and, based on the need to achieve a better image, a third MRI is performed with an additional double dosage (0.2mmol/kg) of contrast material. When the high-dose contrast technique is utilized, A/B MACs (B):

- Do not pay separately for the contrast material used in the second MRI procedure;
- Pay for the contrast material given for the third MRI procedure through supply code Q9952, the replacement code for A4643, when billed with Current Procedural Terminology (CPT) codes 70553, 72156, 72157, and 72158;
- Do not pay for the third MRI procedure. For example, in the case of an MRI of the brain, if CPT code 70553 (without contrast material, followed by with contrast material(s) and further sequences) is billed, make no payment for CPT code 70551 (without contrast material(s)), the additional procedure given for the purpose of administering the double dosage, furnished during the same session. Medicare does not pay for the third procedure (as distinguished from the contrast...
Do not apply the payment criteria for low osmolar contrast media in §30.1.2 to billings for code Q9952, the replacement code for A4643.

**Effective January 1, 2007**

With the implementation for calendar year 2007 of a bottom-up methodology, which utilizes the direct inputs to determine the practice expense (PE) relative value units (RVUs), the cost of the contrast media is not included in the PE RVUs. Therefore, a separate payment for the contrast media used in various imaging procedures is paid. In addition to the CPT code representing the imaging procedure, separately bill the appropriate HCPCS “Q” code (Q9945 – Q9954; Q9958-Q9964) for the contrast medium utilized in performing the service.

**Effective February 24, 2011**

Medicare will allow for coverage of MRI for beneficiaries with implanted PMs or cardioverter defibrillators (ICDs) for use in an MRI environment in a Medicare-approved clinical study as described in section 220.C.1 of the NCD manual.

**Effective July 7, 2011**

Medicare will allow for coverage of MRI for beneficiaries with implanted pacemakers (PMs) when the PMs are used according to the Food and Drug Administration (FDA)-approved labeling for use in an MRI environment as described in section 220.2.C.1 of the NCD Manual.

**40.1 – Magnetic Resonance Angiography (MRA)**
*(Rev. 2171, Issued: 03-04-11, Effective: 02-24-11, Implementation: 04-04-11)*

**40.1.1 – Magnetic Resonance Angiography (MRA) Coverage Summary**
*(Rev. 2171, Issued: 03-04-11, Effective: 02-24-11, Implementation: 04-04-11)*

Section 1861(s)(2)(C) of the Social Security Act provides for coverage of diagnostic testing. Coverage of magnetic resonance angiography (MRA) of the head and neck, and MRA of the peripheral vessels of the lower extremities is limited as described in Publication (Pub.) 100-03, the Medicare National Coverage Determinations (NCD) Manual. This instruction has been revised as of July 1, 2003, based on a determination that coverage is reasonable and necessary in additional circumstances. Under that instruction, MRA is generally covered only to the extent that it is used as a substitute for contrast angiography, except to the extent that there are documented circumstances consistent with that instruction that demonstrates the medical necessity of both tests. Prior to June 3, 2010, there was no coverage of MRA outside of the indications and circumstances described in that instruction.
Effective for claims with dates of service on or after June 3, 2010, contractors have the discretion to cover or not cover all indications of MRA (and magnetic resonance imaging (MRI)) that are not specifically nationally covered or nationally non-covered as stated in section 220.2 of the NCD Manual.

Because the status codes for HCPCS codes 71555, 71555-TC, 71555-26, 74185, 74185-TC, and 74185-26 were changed in the Medicare Physician Fee Schedule Database from ‘N’ to ‘R’ on April 1, 1998, any MRA claims with those HCPCS codes with dates of service between April 1, 1998, and June 30, 1999, are to be processed according to the contractor’s discretionary authority to determine payment in the absence of national policy.

Effective for claims with dates of service on or after February 24, 2011, Medicare will provide coverage for MRIs for beneficiaries with implanted cardiac pacemakers or implantable cardioverter defibrillators if the beneficiary is enrolled in an approved clinical study under the Coverage with Study Participation form of Coverage with Evidence Development that meets specific criteria per Pub. 100-03, the NCD Manual, chapter 1, section 220.2.C.1.

40.1.2 - HCPCS Coding Requirements
(Rev. 1472, Issued: 03-06-08, Effective: 05-23-07, Implementation: 04-07-08)

Providers must report HCPCS codes when submitting claims for MRA of the chest, abdomen, head, neck or peripheral vessels of lower extremities. The following HCPCS codes should be used to report these services:

<table>
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<tr>
<th>MRA</th>
<th>Code</th>
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<tbody>
<tr>
<td>MRA of head</td>
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</tr>
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<td>MRA of neck</td>
<td>70548, 70548-26, 70548-TC</td>
</tr>
<tr>
<td>MRA of neck</td>
<td>70549, 70549-26, 70549-TC</td>
</tr>
<tr>
<td>MRA of chest</td>
<td>71555, 71555-26, 71555-TC</td>
</tr>
<tr>
<td>MRA of pelvis</td>
<td>72198, 72198-26, 72198-TC</td>
</tr>
<tr>
<td>MRA of abdomen (dates of service on or after July 1, 2003) – see below.</td>
<td>74185, 74185-26, 74185-TC</td>
</tr>
</tbody>
</table>
MRA of peripheral vessels of lower extremities 73725, 73725-26, 73725-TC

Hospitals subject to OPPS should report the following C codes in place of the above HCPCS codes as follows:

- MRA of chest 71555: C8909 – C8911
- MRA of abdomen 74185: C8900 – C8902
- MRA of peripheral vessels of lower extremities 73725: C8912 – C8914

For claims with dates of service on or after July 1, 2003, coverage under this benefit has been expanded for the use of MRA for diagnosing pathology in the renal or aortoiliac arteries. The following HCPCS code should be used to report this expanded coverage of MRA:

- MRA, pelvis, with or without contrast material(s) 72198, 72198-26, 72198-TC

Hospitals subject to OPPS report the following C codes in place of HCPCS code 72198:

- MRA, pelvis, with or without contrast material(s) 72198: C8918 - C8920

NOTE: Information regarding the claim form locator that corresponds to the HCPCS code and a table to crosswalk its CMS-1450 form locator to the 837 transaction is found in Chapter 25.

40.1.3 - Special Billing Instructions for RHCs and FQHCs
(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012
Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10

Independent RHCs and free-standing FQHCs bill under bill type 71X and 73X for the professional component utilizing revenue codes 520 and 521 as appropriate. HCPCS coding is not required. The technical component is outside the scope of the RHC/FQHC benefit. The provider of the technical service bills using the ASC X12 837 professional claim format or on Form CMS-1500.

The technical component for a provider based RHC/FQHC is typically furnished by the provider. The provider of that service bills under bill type 13X or 85X as appropriate using its outpatient provider number (not the RHC/FQHC provider number since these
services are not covered as RHC/FQHC services). Effective 4/1/06, type of bill 14X is for non-patient laboratory specimens and is no longer applicable for radiology services.

40.1.4 – Payment Requirements
(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012
Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10

For claims with dates of service on and after February 24, 2011, the following diagnosis code and modifier shall be reported on MRI claims for beneficiaries with implanted PMs, that are outside FDA-approved labeling for use in an MRI environment (in a Medicare-approved clinical study):

- Appropriate MRI code
- Q0 modifier
- Condition code 30 (for institutional claims)
- **If ICD-9-CM is applicable**
  - ICD-9 code V70.7- Examination of participant in clinical trial (for institutional claims)
  - ICD-9 code V45.02 (automatic implantable cardiac defibrillator) or
  - ICD-9 code V45.01 (cardiac pacemaker)

- **If ICD-10-CM is applicable**
  - Z00.6 - Encounter for examination for normal comparison and control in clinical research program
  - Z95.810 - Presence of automatic (implantable) cardiac defibrillator or
  - Z95.0 - Presence of cardiac pacemaker

For claims with dates of services on and after July 7, 2011, the following codes shall be reported on MRI claims for beneficiaries with implanted PMs that have FDA-approved labeling for use in an MRI environment:

- Appropriate MRI code
- KX modifier
- **If ICD-9-CM is applicable**
  - ICD-9 code V45.01 (cardiac pacemaker)
- **If ICD-10-CM is applicable**
  - ICD-10 code Z95.0 (cardiac pacemaker)

Payment is as follows:
• Professional claims (practitioners and suppliers) - based on the Medicare Physician Fee Schedule (MPFS)

• Inpatient (11x) - Prospective payment system (PPS), based on the diagnosis-related group

• Hospital outpatient departments (13x) - Outpatient PPS, based on the ambulatory payment classification

• Rural Health Clinics/Federally Qualified Health Centers (RHCs/FQHCs) (71x/77x) - All-inclusive rate, professional component only, based on the visit furnished to the RHC/FQHC beneficiary to receive the MRI. The technical component is outside the scope of the RHC/FQHC benefit. Therefore the provider of the technical service bills their A/B MAC (B) on the ASC X12 837 professional claim format or hardcopy Form CMS-1500 and payment is made under the MPFS.

• Critical access hospitals (CAHs) (85x) –
  
  o For CAHs that elected the optional method of payment for outpatient services, the payment for technical services would be the same as the CAHs that did not elect the optional method - Reasonable cost.

  o The A/B MAC (A) pays the professional component at 115% of the MPFS.

Deductible and coinsurance apply.

40.2 – Medicare Summary Notices (MSN), Reason Codes, and Remark Codes
(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

_The A/B MAC denies_ MRI line items on claims when billed with the appropriate MRI code and a diagnostic code for cardiac pacemaker if modifier KX is not present.

_The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three._

*Group Code: CO*
*CARC: 188*
*RARC: N/A*
*MSN: 21.8*

_The A/B MAC denies_ MRI line items that do not include all of the following line items:
• An appropriate MRI code,

• If ICD-9-CM is applicable, ICD-9 code V45.02 (automatic implantable cardiac defibrillator) or ICD-9 code V45.01 (cardiac pacemaker),

• ICD-10-CM is applicable, ICD-10 code Z95.810 (automatic implantable cardiac defibrillator) or ICD-10 code Z95.0 (cardiac pacemaker),

• Modifier Q0,

• If ICD-9-CM is applicable, ICD-9 code V70.7 Examination of participant in clinical trial (for institutional claims only) or

• If ICD-10-CM is applicable, ICD-10 code Z00.6 – Examination of participant in clinical trial (for institutional claims only), and

• Condition code 30 (for institutional claims only).

The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

Group Code: CO
CARC: 272
RARC: N386
MSN: 21.21

50 - Nuclear Medicine (CPT 78000 - 79999)
(Rev. 1, 10-01-03)

50.1 - Payments for Radionuclides
(Rev. 1, 10-01-03)

The TC RVUs for nuclear medicine procedures (CPT codes 78XXX for diagnostic nuclear medicine, and codes 79XXX for therapeutic nuclear medicine) do not include the radionuclide used in connection with the procedure. These substances are separately billed under codes A4641 and A4642 for diagnostic procedures, and code 79900 for therapeutic procedures and are paid on a “By Report” basis depending on the substance used. In addition, CPT code 79900 is separately payable in connection with certain clinical brachytherapy procedures. (See §70.4 for brachytherapy procedures).

50.2 - Stressing Agent
(Rev. 1, 10-01-03)

A/B MACs (B) must make separate payment under code J1245 for pharmacologic stressing agents used in connection with nuclear medicine and cardiovascular stress
testing procedures furnished to beneficiaries in settings in which TCs are payable. Such an agent is classified as a supply and covered as an integral part of the diagnostic test. However, A/B MACs (B) pay for code J1245 under the policy for determining payments for “incident to” drugs. See Chapter 17 for payment for drugs.

50.2.1 - A/B MAC (A) Payment for IV Persantine
(Rev. 1, 10-01-03)

The A/B MACs (A) pay drug IV Persantine based on the drug pricing methodology when used in conjunction with nuclear medicine and cardiovascular stress testing procedures furnished to SNF outpatients. Separate drug pricing methodology payments for IV Persantine is made in addition to payments made for the procedure. SNFs bill HCPCS code J1245 (injection, dipyridamole, per 10 mg.) with revenue code 0636.

50.2.2 - A/B MAC (A) Payment for Adenosine
(Rev. 1, 10-01-03)
SNF-533.3

The drug adenosine is paid based on the drug payment methodology when used as a pharmacologic stressor for other diagnostic testing. Separate based payment for adenosine will be made in addition to payments made for the procedure for SNF Part B patients. When billing for adenosine, HCPCS code J0150 (Injection, adenosine, 6 mg.) should be reported with revenue code 0636.

50.3 - Application of Multiple Procedure Policy (CPT Modifier “-51”)
(Rev. 1, 10-01-03)

A/B MACs (B) must apply the multiple procedure reduction to the following nuclear medicine diagnostic procedures: codes 78306, 78320, 78802, 78803, 78806, and 78807.

50.4 - Generation and Interpretation of Automated Data
(Rev. 1, 10-01-03)

Payment for CPT codes 78890 and 78891 is bundled into payments for the primary procedure.

60 - Positron Emission Tomography (PET) Scans – General Information
(Rev. 1833; Issued: 10-16-09; Effective Date: 04-03-09; Implementation Date: 10-30-09)

Positron emission tomography (PET) is a noninvasive imaging procedure that assesses perfusion and the level of metabolic activity in various organ systems of the human body. A positron camera (tomograph) is used to produce cross-sectional tomographic images which are obtained by detecting radioactivity from a radioactive tracer substance
(radiopharmaceutical) that emits a radioactive tracer substance (radiopharmaceutical FDG) such as 2-[F-18] flouro-D-glucose FDG, that is administered intravenously to the patient.

The Medicare National Coverage Determinations (NCD) Manual, chapter 1, §220.6, contains additional coverage instructions to indicate the conditions under which a PET scan is performed.

A. Definitions

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.

**NOTE**: Effective for services on or after April 3, 2009, the terms “diagnosis” and “staging” will be replaced with “Initial Treatment Strategy.” For further information on this new term, refer to Pub. 100-03, NCD Manual, section 220.6.17.

- **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).

**NOTE**: Effective for services on or after April 3, 2009, the terms “restaging” and “monitoring” will be replaced with “Subsequent Treatment Strategy.” For further information on this new term, refer to Pub. 100-03, NCD Manual, section 220.6.17.

### 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.

### 60.1 - Billing Instructions

(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012
Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10

**A. Billing and Payment Instructions or Responsibilities for A/B MACs (B)**

Claims for PET scan services must be billed using the ASC X12 837 professional claim format or on Form-CMS 1500 with the appropriate HCPCS or CPT code and diagnosis codes to the A/B MAC (B). Effective for claims received on or after July 1, 2001, PET modifiers were discontinued and are no longer a claims processing requirement for PET scan claims. Therefore, July 1, 2001, and after the MSN messages regarding the use of...
PET modifiers can be discontinued. The type of service (TOS) for the new PET scan procedure codes is TOS 4, Diagnostic Radiology. Payment is based on the Medicare Physician Fee Schedule.

B. Billing and Payment Instructions or Responsibilities for A/B MACs (A)

Claims for PET scan procedures must be billed to the A/B MAC (A) on the ASC X12 837 institutional claim format or on Form CMS-1450 with the appropriate diagnosis and HCPCS “G” code or CPT code to indicate the conditions under which a PET scan was done. These codes represent the technical component costs associated with these procedures when furnished to hospital and SNF outpatients. They are paid as follows:

- under OPPS for hospitals subject to OPPS
- under current payment methodologies for hospitals not subject to OPPS
- on a reasonable cost basis for critical access hospitals.
- on a reasonable cost basis for skilled nursing facilities.

Institutional providers bill these codes under Revenue Code 0404 (PET Scan).

Medicare contractors shall pay claims submitted for services provided by a critical access hospital (CAH) as follows: Method I technical services are paid at 101% of reasonable cost; Method II technical services are paid at 101% of reasonable cost, and professional services are paid at 115% of the Medicare Physician Fee Schedule Data Base.

C. Frequency

In the absence of national frequency limitations, for all indications covered on and after July 1, 2001, contractors can, if necessary, develop frequency limitations on any or all covered PET scan services.

D. Post-Payment Review for PET Scans

As with any claim, but particularly in view of the limitations on this coverage, Medicare may decide to conduct post-payment reviews to determine that the use of PET scans is consistent with coverage instructions. Pet scanning facilities must keep patient record information on file for each Medicare patient for whom a PET scan claim is made. These medical records can be used in any post-payment reviews and must include the information necessary to substantiate the need for the PET scan. These records must include standard information (e.g., age, sex, and height) along with sufficient patient histories to allow determination that the steps required in the coverage instructions were followed. Such information must include, but is not limited to, the date, place and results of previous diagnostic tests (e.g., cytopathology and surgical pathology reports, CT), as well as the results and reports of the PET scan(s) performed at the center. If available, such records should include the prognosis derived from the PET scan, together with information regarding the physician or institution to which the patient proceeded.
following the scan for treatment or evaluation. The ordering physician is responsible for forwarding appropriate clinical data to the PET scan facility.

Effective for claims received on or after July 1, 2001, CMS no longer requires paper documentation to be submitted up front with PET scan claims. Contractors shall be aware and advise providers of the specific documentation requirements for PET scans for dementia and neurodegenerative diseases. This information is outlined in section 60.12. Documentation requirements such as physician referral and medical necessity determination are to be maintained by the provider as part of the beneficiary’s medical record. This information must be made available to the A/B MAC (A or B) upon request of additional documentation to determine appropriate payment of an individual claim.

60.2 - Use of Gamma Cameras and Full Ring and Partial Ring PET Scanners for PET Scans
(Rev. 527, Issued: 04-15-05, Effective: 01-28-05, Implementation: 04-18-05)

See the Medicare NCD Manual, Section 220.6, concerning 2-[F-18] Fluoro-D-Glucose (FDG) PET scanners and details about coverage.

On July 1, 2001, HCPCS codes G0210 - G0230 were added to allow billing for all currently covered indications for FDG PET. Although the codes do not indicate the type of PET scanner, these codes were used until January 1, 2002, by providers to bill for services in a manner consistent with the coverage policy.

Effective January 1, 2002, HCPCS codes G0210 – G0230 were updated with new descriptors to properly reflect the type of PET scanner used. In addition, four new HCPCS codes became effective for dates of service on and after January 1, 2002, (G0231, G0232, G0233, G0234) for covered conditions that may be billed if a gamma camera is used for the PET scan. For services performed from January 1, 2002, through January 27, 2005, providers should bill using the revised HCPCS codes G0210 - G0234. Beginning January 28, 2005 providers should bill using the appropriate CPT code.

60.2.1 - Coverage for Myocardial Viability
(Rev. 1, 10-01-03)
AB-02-065

The FDG PET is covered for the determination of myocardial viability following an inconclusive single photon computed tomography test (SPECT) from July 1, 2001, through September 30, 2002. Only full ring scanners are covered as the scanning medium for this service from July 1, 2001, through December 31, 2001. However, as of January 1, 2002, full and partial ring scanners are covered for myocardial viability following an inconclusive SPECT.

Beginning October 1, 2002, Medicare will cover FDG PET for the determination of myocardial viability as a primary or initial diagnostic study prior to revascularization, and will continue to cover FDG PET when used as a follow-up to an inconclusive SPECT.
However, if a patient received a FDG PET study with inconclusive results, a follow-up SPECT is not covered. FDA full and partial ring PET scanners are covered.

In the event that a patient receives a SPECT with inconclusive results, a PET scan may be performed and covered by Medicare. However, a SPECT is not covered following a FDG PET with inconclusive results. See the Medicare National Coverage Determinations Manual for specific frequency limitations for Myocardial Viability following an inconclusive SPECT.

In the absence of national frequency limitations, contractors can, if necessary develop reasonable frequency limitations for myocardial viability.

Documentation that these conditions are met should be maintained by the referring physician as part of the beneficiary’s medical record.

**60.3 - PET Scan Qualifying Conditions and HCPCS Code Chart**  
(Rev. 527, Issued: 04-15-05, Effective: 01-28-05, Implementation: 04-18-05)

Below is a summary of all covered PET scan conditions, with effective dates.

**NOTE:** The G codes below except those a # can be used to bill for PET Scan services through January 27, 2005. Effective for dates of service on or after January 28, 2005, providers must bill for PET Scan services using the appropriate CPT codes. See section 60.3.1. The G codes with a # can continue to be used for billing after January 28, 2005 and these remain non-covered by Medicare. (**NOTE:** PET Scanners must be FDA-approved.)

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Coverage Effective Date</th>
<th>****HCPCS/CPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Myocardial perfusion imaging (following previous PET G0030-G0047) single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0030</td>
</tr>
<tr>
<td>*Myocardial perfusion imaging (following previous PET G0030-G0047) multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0031</td>
</tr>
<tr>
<td>*Myocardial perfusion imaging (following rest SPECT, 78464); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0032</td>
</tr>
<tr>
<td>*Myocardial perfusion imaging (following rest SPECT 78464); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0033</td>
</tr>
<tr>
<td>*Myocardial perfusion (following stress SPECT 78465); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0034</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress SPECT 78465); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0035</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following coronary angiography 93510-93529); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0036</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging, (following coronary angiography), 93510-93529); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0037</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress planar myocardial perfusion, 78460); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0038</td>
</tr>
<tr>
<td><strong>Conditions</strong></td>
<td><strong>Coverage Effective Date</strong></td>
<td><strong>HCPCS/CPT</strong></td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress planar myocardial perfusion, 78460); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0039</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress echocardiogram 93350); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0040</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress echocardiogram, 93350); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0041</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress nuclear ventriculogram 78481 or 78483); single study, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0042</td>
</tr>
<tr>
<td>*Myocardial Perfusion Imaging (following stress nuclear ventriculogram 78481 or 78483); multiple studies, rest or stress (exercise and/or pharmacologic)</td>
<td>3/14/95</td>
<td>G0043</td>
</tr>
<tr>
<td>Conditions</td>
<td>Coverage Effective Date</td>
<td>****HCPCS/CPT</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Lung cancer, non-small cell (PET imaging whole body)</td>
<td>7/1/01</td>
<td>G0210 G0211 G0212</td>
</tr>
<tr>
<td>Diagnosis, Initial Staging, Restaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorectal cancer (PET imaging whole body)</td>
<td>7/1/01</td>
<td>G0213 G0214 G0215</td>
</tr>
<tr>
<td>Diagnosis, Initial Staging, Restaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanoma (PET imaging whole body)</td>
<td>7/1/01</td>
<td>G0216 G0217 G0218</td>
</tr>
<tr>
<td>Diagnosis, Initial Staging, Restaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanoma for non-covered indications</td>
<td>7/1/01</td>
<td>#G0219</td>
</tr>
<tr>
<td>Lymphoma (PET imaging whole body)</td>
<td>7/1/01</td>
<td>G0220 G0221 G0222</td>
</tr>
<tr>
<td>Diagnosis, Initial Staging, Restaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conditions</td>
<td>Coverage Effective Date</td>
<td>HCPCS/CPT</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| Head and neck cancer; excluding thyroid and CNS cancers (PET imaging whole body or regional) Diagnosis, Initial Staging, Restaging | 7/1/01 | G0223  
G0224  
G0225 |
| Esophageal cancer (PET imaging whole body) Diagnosis, Initial Staging, Restaging | 7/1/01 | G0226  
G0227  
G0228 |
<p>| Metabolic brain imaging for pre-surgical evaluation of refractory seizures | 7/1/01 | G0229 |
| Metabolic assessment for myocardial viability following inconclusive SPECT study | 7/1/01 | G0230 |
| Recurrence of colorectal or colorectal metastatic cancer (PET whole body, gamma cameras only) | 1/1/02 | G0231 |
| Staging and characterization of lymphoma (PET whole body, gamma cameras only) | 1/1/02 | G0232 |
| Recurrence of melanoma or melanoma metastatic cancer (PET whole body, gamma cameras only) | 1/1/02 | G0233 |
| Regional or whole body, for solitary pulmonary nodule following CT, or for initial staging of non-small cell lung cancer (gamma cameras only) | 1/1/02 | G0234 |
| Non-Covered Service PET imaging, any site not otherwise specified | 1/28/05 | #G0235 |
| Non-Covered Service Initial diagnosis of breast cancer and/or surgical planning for breast cancer (e.g., initial staging of axillary lymph nodes), not covered (full- and partial-ring PET scanners only) | 10/1/02 | #G0252 |
| Breast cancer, staging/restaging of local regional recurrence or distant metastases, i.e., staging/restaging after or prior to course of treatment (full- and partial-ring PET scanners only) | 10/1/02 | G0253 |</p>
<table>
<thead>
<tr>
<th>Conditions</th>
<th>Coverage Effective Date</th>
<th>****HCPCS/CPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET imaging, brain imaging for the differential diagnosis of Alzheimer’s disease with aberrant features vs. fronto-temporal dementia</td>
<td>09/15/04</td>
<td>Appropriate CPT Code from section 60.3.1</td>
</tr>
<tr>
<td>PET Cervical Cancer</td>
<td>1/28/05</td>
<td>Appropriate CPT Code from section 60.3.1</td>
</tr>
</tbody>
</table>

*NOTE: A/B MACs (B) must report A4641 for the tracer Rubidium 82 when used with PET scan codes G0030 through G0047 for services performed on or before January 27, 2005

**NOTE: Not FDG PET

***NOTE: For dates of service October 1, 2003, through December 31, 2003, use temporary code Q4078 for billing this radiopharmaceutical.

60.3.1 - Appropriate CPT Codes Effective for PET Scans for Services Performed on or After January 28, 2005
(Rev. 1301, Issued: 07-20-07, Effective: 01-28-05 CPT Code 78609/01-01-08 HCPCS Code A4641, Implementation: 01-07-08)
**NOTE:** All PET scan services require the use of a radiopharmaceutical diagnostic imaging agent (tracer). The applicable tracer code should be billed when billing for a PET scan service. See section 60.3.2 below for applicable tracer codes.

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>78459</td>
<td>Myocardial imaging, positron emission tomography (PET), metabolic evaluation</td>
</tr>
<tr>
<td>78491</td>
<td>Myocardial imaging, positron emission tomography (PET), perfusion, single study at rest or stress</td>
</tr>
<tr>
<td>78492</td>
<td>Myocardial imaging, positron emission tomography (PET), perfusion, multiple studies at rest and/or stress</td>
</tr>
<tr>
<td>78608</td>
<td>Brain imaging, positron emission tomography (PET); metabolic evaluation</td>
</tr>
<tr>
<td>78811</td>
<td>Tumor imaging, positron emission tomography (PET); limited area (e.g., chest, head/neck)</td>
</tr>
<tr>
<td>78812</td>
<td>Tumor imaging, positron emission tomography (PET); skull base to mid-thigh</td>
</tr>
<tr>
<td>78813</td>
<td>Tumor imaging, positron emission tomography (PET); whole body</td>
</tr>
<tr>
<td>78814</td>
<td>Tumor imaging, positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization; limited area (e.g., chest, head/neck)</td>
</tr>
<tr>
<td>78815</td>
<td>Tumor imaging, positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization; skull base to mid-thigh</td>
</tr>
<tr>
<td>78816</td>
<td>Tumor imaging, positron emission tomography (PET) with concurrently acquired computed tomography (CT) for attenuation correction and anatomical localization; whole body</td>
</tr>
</tbody>
</table>

### 60.3.2 - Tracer Codes Required for PET Scans
(Rev. 2096, Issued: 11-19-10, Effective: 02-26-10, Implementation: 02-22-11)

The following tracer codes are applicable only to CPT 78491 and 78492. They cannot be reported with any other code.

**Institutional providers billing the A/B MAC (A)**

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCPCS</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>*A9555</td>
<td>Rubidium Rb-82, Diagnostic, Per study dose, Up To 60 Millicuries</td>
</tr>
<tr>
<td>* Q3000 (Deleted effective 12/31/05)</td>
<td>Supply of Radiopharmaceutical Diagnostic Imaging Agent, Rubidium Rb-82, per dose</td>
</tr>
<tr>
<td>A9526</td>
<td>Nitrogen N-13 Ammonia, Diagnostic, Per study dose, Up To 40 Millicuries</td>
</tr>
</tbody>
</table>

**NOTE:** For claims with dates of service prior to 1/01/06, providers report Q3000 for supply of radiopharmaceutical diagnostic imaging agent, Rubidium Rb-82. For claims with dates of service 1/01/06 and later, providers report A9555 for radiopharmaceutical diagnostic imaging agent, Rubidium Rb-82 in place of Q3000.

**Physicians / practitioners billing the A/B MAC (B):**

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*A4641</td>
<td>Supply of Radiopharmaceutical Diagnostic Imaging Agent, Not Otherwise Classified</td>
</tr>
<tr>
<td>A9526</td>
<td>Nitrogen N-13 Ammonia, Diagnostic, Per study dose, Up To 40 Millicuries</td>
</tr>
<tr>
<td>A9555</td>
<td>Rubidium Rb-82, Diagnostic, Per study dose, Up To 60 Millicuries</td>
</tr>
</tbody>
</table>

**NOTE:** Effective January 1, 2008, tracer code A4641 is not applicable for PET Scans.

**The following tracer codes are applicable only to CPT 78459, 78608, 78811-78816. They cannot be reported with any other code:**

**Institutional providers billing the A/B MAC (A):**

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>* A9552</td>
<td>Fluorodeoxyglucose F18, FDG, Diagnostic, Per study dose, Up to 45 Millicuries</td>
</tr>
<tr>
<td>* C1775 (Deleted effective 12/31/05)</td>
<td>Supply of Radiopharmaceutical Diagnostic Imaging Agent, Fluorodeoxyglucose F18, (2-Deoxy-2-18F Fluoro-D-Glucose), Per dose (4-40 Mci/Ml)</td>
</tr>
<tr>
<td>**A4641</td>
<td>Supply of Radiopharmaceutical Diagnostic Imaging Agent, Not Otherwise Classified</td>
</tr>
</tbody>
</table>
The following tracer codes are applicable only to CPT 78811-78816. They cannot be reported with any other code:

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9580</td>
<td>Sodium Fluoride F-18, Diagnostic, per study dose, up to 30 Millicuries</td>
</tr>
</tbody>
</table>

NOTE: For claims with dates of service prior to 1/01/06, OPPS hospitals report C1775 for supply of radiopharmaceutical diagnostic imaging agent, Fluorodeoxyglucose F18. For claims with dates of service 1/01/06 and later, providers report A9552 for radiopharmaceutical diagnostic imaging agent, Fluorodeoxyglucose F18 in place of C1775.

**NOTE:** Effective January 1, 2008, tracer code A4641 is not applicable for PET Scans.

***NOTE: Effective for claims with dates of service February 26, 2010 and later, tracer code A9580 is applicable for PET Scans.

Physicians / practitioners billing the A/B MAC (B):

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9552</td>
<td>Fluorodeoxyglucose F18, FDG, Diagnostic, Per study dose, Up to 45 Millicuries</td>
</tr>
<tr>
<td>*A4641</td>
<td>Supply of Radiopharmaceutical Diagnostic Imaging Agent, Not Otherwise Classified</td>
</tr>
</tbody>
</table>

The following tracer code is applicable only to 78811-78816. They can not be reported with any other code:

<table>
<thead>
<tr>
<th>HCPCS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9580</td>
<td>Sodium Fluoride F-18, Diagnostic, per study dose, up to 30 Millicuries</td>
</tr>
</tbody>
</table>

*NOTE: Effective January 1, 2008, tracer code A4641 is not applicable for PET Scans.

***NOTE: Effective for claims with dates of service February 26, 2010 and later, tracer code A9580 is applicable for PET Scans.

Positron Emission Tomography Reference Table

<table>
<thead>
<tr>
<th>CPT</th>
<th>Short Descriptor</th>
<th>Tracer/Code</th>
<th>or</th>
<th>Tracer/Code</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CPT</td>
<td>Short Descriptor</td>
<td>Tracer/Code</td>
<td>or</td>
<td>Tracer/Code</td>
<td>Comment</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>----</td>
<td>------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>78459</td>
<td>Myocardial imaging, positron emission tomography (PET), metabolic imaging</td>
<td>FDG A9552</td>
<td>--</td>
<td>--</td>
<td>N/A</td>
</tr>
<tr>
<td>78491</td>
<td>Myocardial imaging, positron emission tomography (PET), perfusion; single study at rest or stress</td>
<td>N-13 A9526</td>
<td>or</td>
<td>Rb-82 A9555</td>
<td>N/A</td>
</tr>
<tr>
<td>78492</td>
<td>Myocardial imaging, positron emission tomography (PET), perfusion; multiple studies at rest and/or stress</td>
<td>N-13 A9526</td>
<td>or</td>
<td>Rb-82 A9555</td>
<td>N/A</td>
</tr>
<tr>
<td>78608</td>
<td>Brain imaging, positron emission tomography (PET); metabolic evaluation</td>
<td>FDG A9552</td>
<td>--</td>
<td>--</td>
<td>Covered indications: Alzheimer’s disease/ dementias, intractable seizures Note: This code is also covered for dedicated PET brain tumor imaging.</td>
</tr>
<tr>
<td>78609</td>
<td>Brain imaging, positron emission tomography (PET); perfusion evaluation</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Nationally noncovered</td>
</tr>
<tr>
<td>78811</td>
<td>Positron emission tomography (PET) imaging; limited area (e.g. chest, head/neck)</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
<tr>
<td>CPT</td>
<td>Short Descriptor</td>
<td>Tracer/Code</td>
<td>or</td>
<td>Tracer/Code</td>
<td>Comment</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>78812</td>
<td>Positron emission tomography (PET) imaging, skull base to mid-thigh</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
<tr>
<td>78813</td>
<td>Positron emission tomography (PET) imaging, whole body</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
<tr>
<td>78814</td>
<td>PET/CT imaging, limited area (e.g., chest, head/neck)</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
<tr>
<td>78815</td>
<td>PET/CT imaging, skull base to mid-thigh</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
<tr>
<td>78816</td>
<td>PET/CT imaging, whole body</td>
<td>FDG A9552</td>
<td>or</td>
<td>NaF-18 A9580</td>
<td>NaF-18 PET is covered only to identify bone metastasis of cancer.</td>
</tr>
</tbody>
</table>

60.3.3 - Denial Messages for Noncovered PET Services  
(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

The A/B MAC denies claims for noncovered procedure code, such as 78609.

The contractor shall use the following remittance advice messages and associated codes when rejecting/denyng claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

Group Code: CO  
CARC: 96  
RARC: N386  
MSN: 16.10
60.4 - PET Scans for Imaging of the Perfusion of the Heart Using Rubidium 82 (Rb 82)  
(Rev. 223, Issued: 07-02-04) (Effective/Implementation: Not Applicable)

For dates of service on or after March 14, 1995, Medicare covers one PET scan for imaging of the perfusion of the heart using Rubidium 82 (Rb 82), provided that the following conditions are met:

- The PET is done at a PET imaging center with a PET scanner that has been approved by the FDA;
- The PET scan is a rest alone or rest with pharmacologic stress PET scan, used for noninvasive imaging of the perfusion of the heart for the diagnosis and management of patients with known or suspected coronary artery disease, using Rb 82; and
- Either the PET scan is used in place of, but not in addition to, a single photon emission computed tomography (SPECT) or the PET scan is used following a SPECT that was found inconclusive.

60.5 - Expanded Coverage of PET Scan for Solitary Pulmonary Nodules (SPNs)  
(Rev. 223, Issued: 07-02-04) (Effective/Implementation: Not Applicable)

For dates of service on or after January 1, 1998, Medicare expanded PET scan coverage to include characterization of solitary pulmonary nodules (SPNs).

60.6 - Expanded Coverage of PET Scans Effective for Services on or after July 1, 1999  
(Rev. 223, Issued: 07-02-04) (Effective/Implementation: Not Applicable)

Effective for services performed on or after July 1, 1999, Medicare expanded coverage of PET scans to include the evaluation of recurrent colorectal cancer in patients with rising levels of carinoembryonic antigen (CEA), for the staging of lymphoma (both Hodgkins and non-Hodgkins) when the PET scan substitutes for a gallium scan or lymphangiogram, and for the staging of recurrent melanoma prior to surgery, provided certain conditions are met. All three indications are covered only when using the radiopharmaceutical FDG- (2-[flourine-18]-fluoro-2-deoxy-D-glucose), and are further predicated on the legal availability of FDG for use in such scans.

60.7 - Expanded Coverage of PET Scans Effective for Services on or After July 1, 2001  
(Rev. 223, Issued: 07-02-04) (Effective/Implementation: Not Applicable)
See the Medicare National Coverage Determinations Manual, section 220.6, for specific coverage criteria for PET Scans. Coverage is expanded for PET scans to include the following effective July 1, 2001:

- Scans performed with dedicated full-ring scanners will be covered. Gamma camera systems with at least a 1 inch thick crystal are eligible for coverage in addition to those already approved by CMS (FDA approved);

- The provider must maintain on file the doctor’s referral and documentation that the procedure involved:
  - Only FDA approved drugs and devices and,
  - Did not involve investigational drugs, or procedures using investigational drugs, as determined by the FDA;

- The ordering physician is responsible for certifying the medical necessity of the study according to the conditions. The physician must have documentation in the beneficiary’s medical record to support the referral supplied to the PET scan provider.

The following is a brief summary of the expanded coverage as of July 1, 2001:

- PET is covered for diagnosis, initial staging and restaging of non-small cell lung cancer (NSCLC).

- Usage of PET for colorectal cancer has been expanded to include diagnosis, staging, and restaging.

- Usage of PET for the initial staging, and restaging of both Hodgkin’s and non-Hodgkin’s disease.

- Usage of PET for the diagnosis, initial staging, and restaging of melanoma. *PET Scans are NOT covered for the evaluation of regional nodes.*

- Medicare covers PET for the diagnosis, initial staging, and restaging of esophageal cancer.

- Usage of PET for Head and Neck Cancers. *PET scans for head and neck cancer is NOT covered for central nervous system or thyroid cancers.*

- Usage of PET following an inconclusive single photon emission computed tomography (SPECT) only for myocardial viability. In the event that a patient has received a SPECT and the physician finds the results to be inconclusive, only then may a PET scan be ordered utilizing the proper documentation.

- Usage of PET for pre-surgical evaluation for patients with refractory seizures.
NOTE: Effective January 1, 2002, the definitions of HCPCS Codes G0210 through G0230 have been updated to properly reflect the type of PET scanner used.

60.8 - Expanded Coverage of PET Scans for Breast Cancer Effective for Dates of Service on or After October 1, 2002
(Rev. 527, Issued: 04-15-05, Effective: 01-28-05, Implementation: 04-18-05)

Effective for dates of service on or after October 1, 2002, Medicare will cover FDG PET as an adjunct to other imaging modalities for staging and restaging for locoregional, recurrence or metastasis of breast cancer. Monitoring treatment of a locally advanced breast cancer tumor and metastatic breast cancer when a change in therapy is contemplated is also covered as an adjunct to other imaging modalities. The baseline PET study for monitoring should be done under the code for staging or restaging.

Medicare continues to have a national non-coverage determination for initial diagnosis of breast cancer and initial staging of axillary lymph nodes. Medicare coverage now includes PET as an adjunct to standard imaging modalities for staging patients with distant metastasis or restaging patients with locoregional recurrence or metastasis of breast cancer; as an adjunct to standard imaging modalities for monitoring for women with locally advanced and metastatic breast cancer when a change in therapy is contemplated.

CPT Codes for PET Scans Performed on or After October 1, 2002 for Breast Cancer

Contractors shall advise providers to use the appropriate CPT code from section 60.3.1 for covered breast cancer indications for services performed on or after January 28, 2005.

NOTE: The NCD Manual contains a description of coverage. FDG Positron Emission Tomography is a minimally invasive diagnostic procedure using positron camera [tomograph] to measure the decay of radioisotopes such as FDG. The CMS determined that the benefit category for the requested indications fell under §1861(s)(3) of the Act diagnostic service.

60.9 - Coverage of PET Scans for Myocardial Viability
(Rev. 223, Issued: 07-02-04) (Effective/Implementation: Not Applicable)

FDG PET is covered for the determination of myocardial viability following an inconclusive single photon computed tomography test (SPECT) from July 1, 2001, through September 30, 2002. Only full ring scanners are covered as the scanning medium for this service from July 1, 2001, through December 31, 2001. However, as of January 1, 2002, full and partial ring scanners are covered for myocardial viability following an inconclusive SPECT.

Beginning October 1, 2002, Medicare will cover FDG PET for the determination of myocardial viability as a primary or initial diagnostic study prior to revascularization, and
will continue to cover FDG PET when used as a follow-up to an inconclusive SPECT. However, if a patient received a FDG PET study with inconclusive results, a follow-up SPECT is not covered. FDA full and partial ring PET scanners are covered. In the event that a patient receives a SPECT with inconclusive results, a PET scan may be performed and covered by Medicare. However, a SPECT is not covered following a FDG PET with inconclusive results. See the Medicare National Coverage Determinations Manual, Section 220.6 for specific frequency limitations for Myocardial Viability following an inconclusive SPECT.

Documentation that these conditions are met should be maintained by the referring provider as part of the beneficiary’s medical record.

**HCPCS Code for PET Scan for Myocardial Viability**

78459 - Myocardial imaging, positron emission tomography (PET), metabolic evaluation

**60.10 - Coverage of PET Scans for PET Scan for Thyroid Cancer**

*Rev. 527, Issued: 04-15-05, Effective: 01-28-05, Implementation: 04-18-05*

For services furnished on or after October 1, 2003, Medicare covers the use of FDG PET for thyroid cancer only for restaging of recurrent or residual thyroid cancers of folliculark cell origin that have previously been treated by thyroidectomy and radioidine ablation and have a serum thyroglobulin > 10ng/ml and negative I-131 whole body scan. Contractors shall advise providers to use the appropriate CPT code from section 60.3.1 for thyroid cancer for services performed on or after January 28, 2005.

**60.11 - Coverage of PET Scans for Perfusion of the Heart Using Ammonia N-13**

*Rev. 223, Issued: 07-02-04* (Effective/Implementation: Not Applicable)

Effective for service performed on or after October 1, 2003, PET scans performed at rest or with pharmacological stress used for noninvasive imaging of the perfusion of the heart for the diagnosis and management of patients with known or suspected coronary artery disease using the FDA-approved radiopharmaceutical ammonia N-13 are covered, provided the following requirements are met.

**60.12 - Coverage for PET Scans for Dementia and Neurodegenerative Diseases**

*Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17*

Effective for dates of service on or after September 15, 2004, Medicare will cover FDG PET scans for a differential diagnosis of fronto-temporal dementia (FTD) and Alzheimer's disease OR; its use in a CMS-approved practical clinical trial focused on the utility of FDG-PET in the diagnosis or treatment of dementing neurodegenerative diseases. Refer to Pub. 100-03, NCD Manual, section 220.6.13, for complete coverage
conditions and clinical trial requirements and section 60.15 of this manual for claims processing information.

A.  A/B MAC (A and B) Billing Requirements for PET Scan Claims for FDG-PET for the Differential Diagnosis of Fronto-temporal Dementia and Alzheimer’s Disease:

CPT Code for PET Scans for Dementia and Neurodegenerative Diseases

Contractors shall advise providers to use the appropriate CPT code from section 60.3.1 for dementia and neurodegenerative diseases for services performed on or after January 28, 2005.

Diagnosis Codes for PET Scans for Dementia and Neurodegenerative Diseases

The contractor shall ensure one of the following appropriate diagnosis codes is present on claims for PET Scans for AD:

- If ICD-9-CM is applicable, ICD-9 codes are: 290.0, 290.10 - 290.13, 290.20 - 290, 21, 290.3, 331.0, 331.11, 331.19, 331.2, 331.9, 780.93
- If ICD-10-CM is applicable, ICD-10 codes are: F03.90, F03.90 plus F05, G30.9, G31.01, G31.9, R41.2 or R41.3

Medicare contractors shall deny claims when submitted with an appropriate CPT code from section 60.3.1 and with a diagnosis code other than the range of codes listed above.

Medicare contractors shall instruct providers to issue an Advanced Beneficiary Notice to beneficiaries advising them of potential financial liability prior to delivering the service if one of the appropriate diagnosis codes will not be present on the claim.

The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

Group Code: PR (if claim is received with a GA modifier) otherwise CO
CARC: 11
RARC: N/A
MSN: 16.48

Provider Documentation Required with the PET Scan Claim

Medicare contractors shall inform providers to ensure the conditions mentioned in the NCD Manual, section 220.6.13, have been met. The information must also be maintained in the beneficiary's medical record:
- Date of onset of symptoms;
- Diagnosis of clinical syndrome (normal aging, mild cognitive impairment or MCI: mild, moderate, or severe dementia);
- Mini mental status exam (MMSE) or similar test score;
- Presumptive cause (possible, probably, uncertain AD);
- Any neuropsychological testing performed;
- Results of any structural imaging (MRI, CT) performed;
- Relevant laboratory tests (B12, thyroid hormone); and,
- Number and name of prescribed medications.

B. Billing Requirements for Beta Amyloid Positron Emission Tomography (PET) in Dementia and Neurodegenerative Disease:

Effective for claims with dates of service on and after September 27, 2013, Medicare will only allow coverage with evidence development (CED) for Positron Emission Tomography (PET) beta amyloid (also referred to as amyloid-beta (Aβ)) imaging (HCPCS A9586) or (HCPCS A9599) (one PET Aβ scan per patient).

NOTE: Please note that effective January 1, 2014 the following code A9599 will be updated in the IOCE and HCPCS update. This code will be contractor priced.

Medicare Summary Notices, Remittance Advice Remark Codes, and Claim Adjustment Reason Codes

Effective for dates of service on or after September 27, 2013, contractors shall return as unprocessable/return to provider claims for PET Aβ imaging, through CED during a clinical trial, not containing the following:

- Condition code 30, (A/B MAC (A) only)
- Modifier Q0 and/or modifier Q1 as appropriate
- ICD-9 dx code V70.7/ICD-10 dx code Z00.6 (on either the primary/secondary position)
- A PET HCPCS code (78811 or 78814)
- At least, one Dx code from the table below,

<table>
<thead>
<tr>
<th>ICD-9 Codes</th>
<th>Corresponding ICD-10 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>290.0 Senile dementia, uncomplicated</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>290.10 Presenile dementia,</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>uncomplicated</td>
<td></td>
</tr>
<tr>
<td>290.11 Presenile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>delirium</td>
<td></td>
</tr>
<tr>
<td>ICD-9 Codes</td>
<td>Corresponding ICD-10 Codes</td>
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<tr>
<td>----------------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>290.12 Presenile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>delusional features</td>
<td></td>
</tr>
<tr>
<td>290.13 Presenile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>depressive features</td>
<td></td>
</tr>
<tr>
<td>290.20 Senile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>delusional features</td>
<td></td>
</tr>
<tr>
<td>290.21 Senile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>depressive features</td>
<td></td>
</tr>
<tr>
<td>290.3 Senile dementia with</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>delirium</td>
<td></td>
</tr>
<tr>
<td>290.40 Vascular dementia,</td>
<td>F01.50 Vascular dementia without behavioral disturbance</td>
</tr>
<tr>
<td>uncomplicated</td>
<td></td>
</tr>
<tr>
<td>290.41 Vascular dementia with</td>
<td>F01.51 Vascular dementia with behavioral disturbance</td>
</tr>
<tr>
<td>delirium</td>
<td></td>
</tr>
<tr>
<td>290.42 Vascular dementia with</td>
<td>F01.51 Vascular dementia with behavioral disturbance</td>
</tr>
<tr>
<td>delusions</td>
<td></td>
</tr>
<tr>
<td>290.43 Vascular dementia with</td>
<td>F01.51 Vascular dementia with behavioral disturbance</td>
</tr>
<tr>
<td>depressed mood</td>
<td></td>
</tr>
<tr>
<td>294.10 Dementia in conditions</td>
<td>F02.80 Dementia in other diseases classified elsewhere without</td>
</tr>
<tr>
<td>classified elsewhere without behavioral</td>
<td>behavioral disturbance</td>
</tr>
<tr>
<td>disturbance</td>
<td></td>
</tr>
<tr>
<td>294.11 Dementia in conditions</td>
<td>F02.81 Dementia in other diseases classified elsewhere with</td>
</tr>
<tr>
<td>classified elsewhere with behavioral</td>
<td>behavioral disturbance</td>
</tr>
<tr>
<td>disturbance</td>
<td></td>
</tr>
<tr>
<td>294.20 Dementia, unspecified, without</td>
<td>F03.90 Unspecified dementia without behavioral disturbance</td>
</tr>
<tr>
<td>behavioral disturbance</td>
<td></td>
</tr>
<tr>
<td>294.21 Dementia, unspecified, without</td>
<td>F03.91 Unspecified dementia with behavioral disturbance</td>
</tr>
<tr>
<td>behavioral disturbance</td>
<td></td>
</tr>
<tr>
<td>331.11 Pick’s Disease</td>
<td>G31.01 Pick's disease</td>
</tr>
<tr>
<td>331.19 Other Frontotemporal dementia</td>
<td>G31.09 Other frontotemporal dementia</td>
</tr>
<tr>
<td>331.6 Corticobasal degeneration</td>
<td>G31.85 Corticobasal degeneration</td>
</tr>
<tr>
<td>331.82 Dementia with Lewy Bodies</td>
<td>G31.83 Dementia with Lewy bodies</td>
</tr>
<tr>
<td>331.83 Mild cognitive impairment, so</td>
<td>G31.84 Mild cognitive impairment, so stated</td>
</tr>
<tr>
<td>stated</td>
<td></td>
</tr>
<tr>
<td>ICD-9 Codes</td>
<td>Corresponding ICD-10 Codes</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>780.93 Memory Loss</td>
<td>R41.1 Anterograde amnesia</td>
</tr>
<tr>
<td></td>
<td>R41.2 Retrograde amnesia</td>
</tr>
<tr>
<td></td>
<td>R41.3 Other amnesia (Amnesia NOS, Memory loss NOS)</td>
</tr>
<tr>
<td>V70.7 Examination for normal comparison or control in clinical</td>
<td>Z00.6 Encounter for examination for normal comparison and control in clinical research program</td>
</tr>
</tbody>
</table>

and

- Aβ HCPCS code A9586 or A9599

*The contractor shall use the following remittance advice messages and associated codes when returning claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Two.*

**Group Code:** CO  
**CARC:** 4  
**RARC:** N517, N519  
**MSN:** N/A

Contractors shall line-item **deny** claims for PET Aβ, HCPCS code A9586 or A9599, where a previous PET Aβ, HCPCS code A9586 or A9599 is paid in history.

*The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.*

**Group Code:** PR (if claim is received with a GA modifier) otherwise CO  
**CARC:** 149  
**RARC:** N587  
**MSN:** 20.12

**60.13 - Billing Requirements for PET Scans for Specific Indications of Cervical Cancer for Services Performed on or After January 28, 2005 (Rev. 1888; Issued: 01-06-10, Effective date: 11-10-09; Implementation Date: 01-04-10)**

Contractors shall accept claims for these services with the appropriate CPT code listed in section 60.3.1. Refer to Pub. 100-03, section 220.6.17, for complete coverage guidelines for this new PET oncology indication. The implementation date for these CPT codes will be April 18, 2005. Also see section 60.17, of this chapter for further claims processing instructions for cervical cancer indications.
60.14 - Billing Requirements for PET Scans for Non-Covered Indications
(Rev. 527, Issued: 04-15-05, Effective: 01-28-05, Implementation: 04-18-05)

For services performed on or after January 28, 2005, contractors shall accept claims with the following HCPCS code for non-covered PET indications:

- G0235: PET imaging, any site not otherwise specified
Short Descriptor: PET not otherwise specified
Type of Service: 4

NOTE: This code is for a non-covered service.

60.15 - Billing Requirements for CMS - Approved Clinical Trials and Coverage With Evidence Development Claims for PET Scans for Neurodegenerative Diseases, Previously Specified Cancer Indications, and All Other Cancer Indications Not Previously Specified
(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012
Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10

A/B MACs (A and B)

Effective for services on or after January 28, 2005, contractors shall accept and pay for claims for Positron Emission Tomography (PET) scans for lung cancer, esophageal cancer, colorectal cancer, lymphoma, melanoma, head & neck cancer, breast cancer, thyroid cancer, soft tissue sarcoma, brain cancer, ovarian cancer, pancreatic cancer, small cell lung cancer, and testicular cancer, as well as for neurodegenerative diseases and all other cancer indications not previously mentioned in this chapter, if these scans were performed as part of a Centers for Medicare & Medicaid (CMS)-approved clinical trial. (See Pub. 100-03, National Coverage Determinations (NCD) Manual, sections 220.6.13 and 220.6.17.)

Contractors shall also be aware that PET scans for all cancers not previously specified at Pub. 100-03, NCD Manual, section 220.6.17, remain nationally non-covered unless performed in conjunction with a CMS-approved clinical trial.

Effective for dates of service on or after June 11, 2013, Medicare has ended the coverage with evidence development (CED) requirement for FDG (2-[F18] fluoro-2-deoxy-D-glucose) PET and PET/computed tomography (CT) and PET/magnetic resonance
imaging (MRI) for all oncologic indications contained in section 220.6.17 of the NCD Manual. Modifier -Q0 (Investigational clinical service provided in a clinical research study that is in an approved clinical research study) or -Q1 (routine clinical service provided in a clinical research study that is in an approved clinical research study) is no longer mandatory for these services when performed on or after June 11, 2013.

**A/B MACs (B) Only**

A/B MACs (B) shall pay claims for PET scans for beneficiaries participating in a CMS-approved clinical trial submitted with an appropriate current procedural terminology (CPT) code from section 60.3.1 of this chapter and modifier Q0/Q1 for services performed on or after January 1, 2008, through June 10, 2013. (NOTE: Modifier QR (Item or service provided in a Medicare specified study) and QA (FDA investigational device exemption) were replaced by modifier Q0 effective January 1, 2008.) Modifier QV (item or service provided as routine care in a Medicare qualifying clinical trial) was replaced by modifier Q1 effective January 1, 2008.) Beginning with services performed on or after June 11, 2013, modifier Q0/Q1 is no longer required for PET FDG services.

**A/B MACs (A) Only**

In order to pay claims for PET scans on behalf of beneficiaries participating in a CMS-approved clinical trial, A/B MACs (A) require providers to submit claims with, if ICD-9-CM is applicable, ICD-9 code V70.7; if ICD-10-CM is applicable, ICD-10 code Z00.6 in the primary/secondary diagnosis position using the ASC X12 837 institutional claim format or on Form CMS-1450, with the appropriate principal diagnosis code and an appropriate CPT code from section 60.3.1. Effective for PET scan claims for dates of service on or after January 28, 2005, through December 31, 2007, A/B MACs (A) shall accept claims with the QR, QV, or QA modifier on other than inpatient claims. Effective for services on or after January 1, 2008, through June 10, 2013, modifier Q0 replaced the QR and QA modifier, modifier Q1 replaced the QV modifier. Modifier Q0/Q1 is no longer required for services performed on or after June 11, 2013.

**60.16 - Billing and Coverage Changes for PET Scans Effective for Services on or After April 3, 2009**

*(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)*

**A. Summary of Changes**

Effective for services on or after April 3, 2009, Medicare will **not cover** the use of FDG PET imaging to determine **initial treatment strategy** in patients with adenocarcinoma of the prostate.

Medicare will also not cover FDG PET imaging for **subsequent treatment strategy** for tumor types other than breast, cervical, colorectal, esophagus, head and neck (non-CNS/thyroid), lymphoma, melanoma, myeloma, non-small cell lung, and ovarian, unless
the FDG PET is provided under the coverage with evidence development (CED) paradigm (billed with modifier -Q0/-Q1, see section 60.15 of this chapter).

Medicare will cover FDG PET imaging for initial treatment strategy for myeloma.

Effective for services performed on or after June 11, 2013, Medicare has ended the CED requirement for FDG PET and PET/CT and PET/MRI for all oncologic indications contained in section 220.6.17 of the NCD Manual. Effective for services on or after June 11, 2013, the Q0/Q1 modifier is no longer required.

Beginning with services performed on or after June 11, 2013, contractors shall pay for up to three (3) FDG PET scans when used to guide subsequent management of anti-tumor treatment strategy (modifier PS) after completion of initial anti-cancer therapy (modifier PI) for the exact same cancer diagnosis.

Coverage of any additional FDG PET scans (that is, beyond 3) used to guide subsequent management of anti-tumor treatment strategy after completion of initial anti-tumor therapy for the same cancer diagnosis will be determined by the A/B MACs (A or B). Claims will include the KX modifier indicating the coverage criteria is met for coverage of four or more FDG PET scans for subsequent treatment strategy for the same cancer diagnosis under this NCD.

A different cancer diagnosis whether submitted with a PI or a PS modifier will begin the count of one initial and three subsequent FDG PET scans not requiring the KX modifier and four or more FDG PET scans for subsequent treatment strategy for the same cancer diagnosis requiring the KX modifier.

NOTE: The presence or absence of an initial treatment strategy claim in a beneficiary’s record does not impact the frequency criteria for subsequent treatment strategy claims for the same cancer diagnosis.


For further information regarding the changes in coverage, refer to Pub.100-03, NCD Manual, section 220.6.17.

B. Modifiers for PET Scans

Effective for claims with dates of service on or after April 3, 2009, the following modifiers have been created for use to inform for the initial treatment strategy of biopsy-proven or strongly suspected tumors or subsequent treatment strategy of cancerous tumors:
**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.

Short descriptor: PET tumor init tx strat

**PS** Positron Emission Tomography (PET) or PET/Computed Tomography (CT) to inform the subsequent treatment strategy of cancerous tumors when the beneficiary's treatment physician determines that the PET study is needed to inform subsequent anti-tumor strategy.

Short descriptor: PS - PET tumor subsq tx strategy

C. Billing for A/B MACs (A and B)

Effective for claims with dates of service on or after April 3, 2009, contractors shall accept FDG PET claims billed to inform initial treatment strategy with the following CPT codes AND modifier PI: 78608, 78811, 78812, 78813, 78814, 78815, 78816.

Effective for claims with dates of service on or after April 3, 2009, contractors shall accept FDG PET claims with modifier PS for the subsequent treatment strategy for solid tumors using a CPT code above AND a cancer diagnosis code.

Contractors shall also accept FDG PET claims billed to inform initial treatment strategy or subsequent treatment strategy when performed under CED with one of the PET or PET/CT CPT codes above AND modifier PI OR modifier PS AND a cancer diagnosis code AND modifier Q0/Q1. Effective for services performed on or after June 11, 2013, the CED requirement has ended and modifier Q0/Q1, along with condition code 30 (institutional claims only), or ICD-9 code V70.7, (both institutional and practitioner claims) are no longer required.

D. Medicare Summary Notices, Remittance Advice Remark Codes, and Claim Adjustment Reason Codes

Effective for dates of service on or after April 3, 2009, contractors shall return as unprocessable/return to provider claims that do not include the PI modifier with one of the PET/PET/CT CPT codes listed in subsection C. above when billing for the initial treatment strategy for solid tumors in accordance with Pub.100-03, NCD Manual, section 220.6.17.

In addition, contractors shall return as unprocessable/return to provider claims that do not include the PS modifier with one of the CPT codes listed in subsection C. above when billing for the subsequent treatment strategy for solid tumors in accordance with Pub.100-03, NCD Manual, section 220.6.17.
The contractor shall use the following remittance advice messages and associated codes when returning claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Two.

**Group Code: CO**
- **CARC:** 4
- **RARC:** MA130
- **MSN:** N/A

Effective for claims with dates of service on or after April 3, 2009, through June 10, 2013, contractors shall return as unprocessable/return to provider FDG PET claims billed to inform initial treatment strategy or subsequent treatment strategy when performed under CED without one of the PET/PET/CT CPT codes listed in subsection C. above AND modifier PI OR modifier PS AND a cancer diagnosis code AND modifier Q0/Q1.

The contractor shall use the following remittance advice messages and associated codes when returning claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Two.

**Group Code: CO**
- **CARC:** 4
- **RARC:** MA130
- **MSN:** N/A

Effective April 3, 2009, contractors shall deny claims with ICD-9/ICD-10 diagnosis code 185/C61 for FDG PET imaging for the initial treatment strategy of patients with adenocarcinoma of the prostate.

For dates of service prior to June 11, 2013, contractors shall also deny claims for FDG PET imaging for subsequent treatment strategy for tumor types other than breast, cervical, colorectal, esophagus, head and neck (non-CNS/thyroid), lymphoma, melanoma, myeloma, non-small cell lung, and ovarian, unless the FDG PET is provided under CED (submitted with the Q0/Q1 modifier) and use the following messages:

The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

**Group Code: PR (if claim is received with a GA modifier) otherwise CO**
- **CARC:** 50
- **RARC:** N/A
- **MSN:** 15.4

Effective for dates of service on or after June 11, 2013, contractors shall use the following messages when denying claims in excess of three for PET FDG scans for
subsequent treatment strategy when the KX modifier is not included, identified by CPT
codes 78608, 78811, 78812, 78813, 78814, 78815, or 78816, modifier PS, HCPCS
A9552, and the same cancer diagnosis code.

The contractor shall use the following remittance advice messages and associated codes
when rejecting/denying claims under this policy. This CARC/RARC combination is
compliant with CAQH CORE Business Scenario Three.

Group Code: PR (if claim is received with a GA modifier) otherwise CO
CARC: 96
RARC: N435
MSN: 23.17

60.17 – Billing and Coverage Changes for PET Scans for Cervical
Cancer Effective for Services on or After November 10, 2009
(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

A. Billing Changes for A/B MACs (A and B)

Effective for claims with dates of service on or after November 10, 2009, contractors
shall accept FDG PET oncologic claims billed to inform initial treatment strategy;
specifically for staging in beneficiaries who have biopsy-proven cervical cancer when the
beneficiary’s treating physician determines the FDG PET study is needed to determine
the location and/or extent of the tumor as specified in Pub. 100-03, section 220.6.17.

EXCEPTION: CMS continues to non-cover FDG PET for initial diagnosis of cervical
cancer related to initial treatment strategy.

NOTE: Effective for claims with dates of service on and after November 10, 2009, the –
Q0 modifier is no longer necessary for FDG PET for cervical cancer.

B. Medicare Summary Notices, Remittance Advice Remark Codes, and Claim

Adjustment Reason Codes
Additionally, contractors shall return as unprocessable /return to provider for FDG PET
for cervical cancer for initial treatment strategy billed without the following: one of the
PET/PET/ CT CPT codes listed in 60.16 C above AND modifier PI AND a cervical
cancer diagnosis code.

The contractor shall use the following remittance advice messages and associated codes
when returning claims under this policy. This CARC/RARC combination is compliant
with CAQH CORE Business Scenario Two.

Group Code: CO
CARC: 4
RARC: MA130
60.18 – Billing and Coverage Changes for PET (NaF-18) Scans to Identify Bone Metastasis of Cancer Effective for Claims With Dates of Services on or After February 26, 2010

(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

A. Billing Changes for A/B MACs (A and B)

Effective for claims with dates of service on and after February 26, 2010, contractors shall pay for NaF-18 PET oncologic claims to inform of initial treatment strategy (PI) or subsequent treatment strategy (PS) for suspected or biopsy proven bone metastasis ONLY in the context of a clinical study and as specified in Pub. 100-03, section 220.6. All other claims for NaF-18 PET oncology claims remain non-covered.

B. Medicare Summary Notices, Remittance Advice Remark Codes, and Claim Adjustment Reason Codes

Effective for claims with dates of service on or after February 26, 2010, contractors shall return as unprocessable NaF-18 PET oncologic claims billed with modifier TC or globally (for A/B MACs (A) modifier TC or globally does not apply) and HCPCS A9580 to inform the initial treatment strategy or subsequent treatment strategy for bone metastasis that do not include ALL of the following:

- PI or PS modifier AND
- PET or PET/CT CPT code (78811, 78812, 78813, 78814, 78815, 78816) AND
- Cancer diagnosis code AND
- Q0 modifier - Investigational clinical service provided in a clinical research study, are present on the claim.

NOTE: For institutional claims, continue to include ICD-9 diagnosis code V70.7 or ICD-10 diagnosis code Z00.6 and condition code 30 to denote a clinical study.

The contractor shall use the following remittance advice messages and associated codes when returning claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Two

Group Code: CO
CARC: 4
RARC: MA130
MSN: N/A

Effective for claims with dates of service on or after February 26, 2010, contractors shall accept PET oncologic claims billed with modifier 26 and modifier KX to inform the initial treatment strategy or subsequent treatment strategy for bone metastasis that include the following:
• PI or PS modifier AND
• PET or PET/CT CPT code (78811, 78812, 78813, 78814, 78815, 78816) AND
• Cancer diagnosis code AND
• Q0 modifier - Investigational clinical service provided in a clinical research study, are present on the claim.

NOTE: If modifier KX is present on the professional component service, Contractors shall process the service as PET NaF-18 rather than PET with FDG.

Contractors shall also return as unprocessable NaF-18 PET oncologic professional component claims (i.e., claims billed with modifiers 26 and KX) to inform the initial treatment strategy or subsequent treatment strategy for bone metastasis billed with HCPCS A9580.

The contractor shall use the following remittance advice messages and associated codes when returning claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Two.

Group Code: CO
CARC: 4
RARC: MA130
MSN: N/A

60.19 – Local Coverage Determination for PET Using New, Proprietary Radiopharmaceuticals for their FDA-Approved Labeled Indications for Oncologic Imaging Only
(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

Effective for dates of service on or after March 7, 2013, local Medicare Administrative Contractors (MACs) may determine coverage within their respective jurisdictions for positron emission tomography (PET) using radiopharmaceuticals for their Food and Drug Administration (FDA) approved labeled indications for oncologic imaging. When the local MAC determines that a claim is noncovered, the claim is denied.

The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under this policy. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

Group Code: PR (if claim is received with a GA modifier) otherwise CO
CARC: 167
RARC: N/A
MSN: 15.4

70 - Radiation Oncology (Therapeutic Radiology)
(Rev. 1, 10-01-03)
70.1 - Weekly Radiation Therapy Management (CPT 77419 - 77430)
(Rev. 1, 10-01-03)

A/B MACs (B) must pay for a physician’s weekly treatment management services under code 77427. Billing entities must indicate on each claim the number of fractions for which payment is sought.

A weekly unit of treatment management is equal to five fractions or treatment sessions. A week for the purpose of making payments under these codes is comprised of five fractions regardless of the actual time period in which the services are furnished. It is not necessary that the radiation therapist personally examine the patient during each fraction for the weekly treatment management code to be payable. Multiple fractions representing two or more treatment sessions furnished on the same day may be counted as long as there has been a distinct break in therapy sessions, and the fractions are of the character usually furnished on different days. If, at the final billing of the treatment course, there are three or four fractions beyond a multiple of five, those three or four fractions are paid for as a week. If there are one or two fractions beyond a multiple of five, payment for these services is considered as having been made through prior payments.

**EXAMPLE:**

- 18 fractions = 4 weekly services
- 62 fractions = 12 weekly services
- 8 fractions = 2 weekly services
- 6 fractions = 1 weekly service

If billings have occurred which indicate that the treatment course has ended (and, therefore, the number of residual fractions has been determined), but treatments resume, adjust A/B MAC (B) payments for the additional services consistent with the above policy.

**EXAMPLE:**

- 8 fractions = payment for 2 weeks
- 2 additional fractions are furnished by the same physician. No additional Medicare payment is made for the 2 additional fractions.

**A. SNF Treatment Management Delivery Services**

A SNF may not bill weekly treatment management services for its outpatients (codes 77419, 77420, 77425, 77430, and 77431). Instead, the SNF should bill for radiation treatment delivery (codes 77401 - 77404, 77406 - 77409, 77411 - 77414, and 77416). Also, SNFs bill for therapeutic radiology port film (code 77417), which was previously a part of the weekly services. They enter the number of services in the units field.

70.2 - Services Bundled Into Treatment Management Codes
A/B MACs (B) do not make separate payment for services rendered by the radiation oncologists or in conjunction with radiation therapy.

11920  Tattooing, intradermal introduction of insoluble opaque pigments to correct color defects of skin; 6.0 sq. cm or less
11921  6.11 to 20.0 sq. cm
11922  Each additional 20.0 sq. cm
16000  Initial treatment, first-degree burn, when no more than local treatment is required
16010  Dressings and/or debridement, initial or subsequent; under anesthesia, small
16015  Under anesthesia, medium or large, or with major debridement
16020  Without anesthesia, office or hospital, small
16025  Without anesthesia, medium (e.g., whole face or whole extremity)
16030  Without anesthesia, large (e.g., more than one extremity)
36425  Venipuncture, cut down age 1 or over
53670  Catheterization, urethra; simple
53675  Complicated (may include difficult removal of balloon catheter)
99211  Office or other outpatient visit, established patient; Level I
99212  Level II
99213  Level III
99214  Level IV
99215  Level V
99238  Hospital discharge day management
99281  Emergency department visit, new or established patient; Level I
99282  Level II
99283  Level III
99284  Level IV
99285  Level V
90780  IV Infusion therapy, administered by physician or under direct supervision of physician; up to one hour
90781  Each additional hour, up to 8 hours
90847  Family medical psychotherapy (conjoint psychotherapy) by a physician, with continuing medical diagnostic evaluation, and drug management when indicated

99050  Services requested after office hours in addition to basic service

99052  Services requested between 10:00 PM and 8:00 AM in addition to basic service

99054  Services requested on Sundays and holidays in addition to basic service

99058  Office services provided on an emergency basis

99071  Educational supplies, such as books, tapes, and pamphlets, provided by the physician for the patient’s education at cost to physician

99090  Analysis of information data stored in computers (e.g., ECG, blood pressures, hematologic data)

99185  Hypothermia; regional

99371  Telephone call by a physician to patient or for consultation or medical management or for coordinating medical management with other health care professionals; simple or brief (e.g., to report on tests and/or laboratory results, to clarify or alter previous instructions, to integrate new information from other health professionals into the medical treatment plan, or to adjust therapy)

99372  Intermediate (e.g., to provide advice to an established patient on a new problem, to initiate therapy that can be handled by telephone, to discuss test results in detail, to coordinate medical management of a new problem in an established patient, to discuss and evaluate new information and details, or to initiate a new plan of care)

99373  Complex or lengthy (e.g., lengthy counseling session with anxious or distraught patient, detailed or prolonged discussion with family members regarding seriously ill patient, lengthy communication necessary to coordinate complex services or several different health professionals working on different aspects of the total patient care plan)

• Anesthesia (whatever code billed)
• Care of Infected Skin (whatever code billed)
• Checking of Treatment Charts
• Verification of Dosage, As Needed (whatever code billed)
• Continued Patient Evaluation, Examination, Written Progress Notes, As Needed (whatever code billed)
• Final Physical Examination (whatever code billed)
• Medical Prescription Writing (whatever code billed)
• Nutritional Counseling (whatever code billed)
• Pain Management (whatever code billed)
• Review & Revision of Treatment Plan (whatever code billed)
• Routine Medical Management of Unrelated Problem (whatever code billed)
• Special Care of Ostomy (whatever code billed)
• Written Reports, Progress Note (whatever code billed)
• Follow-up Examination and Care for 90 Days After Last Treatment (whatever code billed)

70.3 - Radiation Treatment Delivery (CPT 77401 - 77417)  
(Rev. 1, 10-01-03)

A/B MACs (B) pay for these TC services on a daily basis under CPT codes 77401-77416 for radiation treatment delivery. They do not use local codes and RVUs in paying for the TC of radiation oncology services. Multiple treatment sessions on the same day are payable as long as there has been a distinct break in therapy services, and the individual sessions are of the character usually furnished on different days. A/B MACs (B) pay for CPT code 77417 (Therapeutic radiology port film(s)) on a weekly (five fractions) basis.

70.4 - Clinical Brachytherapy (CPT Codes 77750 - 77799)  
(Rev. 1, 10-01-03)

A/B MACs (B) must apply the bundled services policy to procedures in this family of codes other than CPT code 77776. For procedures furnished in settings in which TC payments are made, A/B MACs (B) must pay separately for the expendable source associated with these procedures under CPT code 79900 except in the case of remote after-loading high intensity brachytherapy procedures (CPT codes 77781-77784). In the four codes cited, the expendable source is included in the RVUs for the TC of the procedures.

70.5 - Radiation Physics Services (CPT Codes 77300 - 77399)  
(Rev. 1, 10-01-03)

A/B MACs (B) pay for the PC and TC of CPT codes 77300-77334 and 77399 on the same basis as they pay for radiologic services generally. For professional component billings in all settings, A/B MACs (B) presume that the radiologist participated in the provision of the service, e.g., reviewed/validated the physicist’s calculation. CPT codes 77336 and 77370 are technical services only codes that are payable by A/B MACs (B) in settings in which only technical component is are payable.

80 - Supervision and Interpretation (S&I) Codes and Interventional Radiology  
(Rev. 1, 10-01-03)
80.1 - Physician Presence  
(Rev. 1, 10-01-03)

Radiologic supervision and interpretation (S&I) codes are used to describe the personal supervision of the performance of the radiologic portion of a procedure by one or more physicians and the interpretation of the findings. In order to bill for the supervision aspect of the procedure, the physician must be present during its performance. This kind of personal supervision of the performance of the procedure is a service to an individual beneficiary and differs from the type of general supervision of the radiologic procedures performed in a hospital for which A/B MACs (A) pay the costs as physician services to the hospital. The interpretation of the procedure may be performed later by another physician. In situations in which a cardiologist, for example, bills for the supervision (the “S”) of the S&I code, and a radiologist bills for the interpretation (the “I”) of the code, both physicians should use a “-52” modifier indicating a reduced service, e.g., only one of supervision and/or interpretation. Payment for the fragmented S&I code is no more than if a single physician furnished both aspects of the procedure.

80.2 - Multiple Procedure Reduction  
(Rev. 1, 10-01-03)

A/B MACs (B) make no multiple procedure reductions in the S&I or primary non-radiologic codes in these types of procedures, or in any procedure codes for which the descriptor and RVUs reflect a multiple service reduction. For additional procedure codes that do not reflect such a reduction, A/B MACs (B) apply the multiple procedure reductions.

90 - Services of Portable X-Ray Suppliers  
(Rev. 1, 10-01-03)

Services furnished by portable x-ray suppliers may have as many as four components. A/B MACs (B) must follow the following rules.

90.1 - Professional Component  
(Rev. 1, 10-01-03)

Pay the PC of radiologic services furnished by portable x-ray suppliers on the same basis as other physician fee schedule services.

90.2 - Technical Component  
(Rev. 1, 10-01-03)

Pay the TC of radiology services furnished by portable x-ray suppliers under the fee schedule on the same basis as TC services generally.

90.3 - Transportation Component (HCPCS Codes R0070 - R0076)
This component represents the transportation of the equipment to the patient. Establish local RVUs for the transportation R codes based on Medicare Administrative Contractor (MAC) knowledge of the nature of the service furnished. The MACs shall allow only a single transportation payment for each trip the portable x-ray supplier makes to a particular location. When more than one patient is x-rayed at the same location, e.g., a nursing home, prorate the single fee schedule transportation payment among all patients (Medicare Parts A and B, and non-Medicare) receiving the portable x-ray services during that trip, regardless of their insurance status. For example, for portable x-ray services furnished at a Skilled Nursing Facility (SNF), the transportation fee should be allocated among all patients receiving portable x-ray services at the same location in a single trip irrespective of whether the patient is in a Part A stay, a Part B patient, or not a Medicare beneficiary at all. If the patient is in a Part A SNF stay, the transportation and set up costs are subject to consolidated billing and not separately billable to Medicare Part B. For a privately insured patient, it would be the responsibility of that patient’s insurer. For a Medicare Part B patient, payment would be made under Part B for the share of the transportation fee attributable to that patient.

R0075 must be billed in conjunction with the radiology codes and only when the x-ray equipment used was actually transported to the location where the x-ray was taken. R0075 would not apply to the x-ray equipment stored in the location where the x-ray was done (e.g., a nursing home) for use as needed.

Below are the definitions for each modifier that must be reported with R0075. Only one of these five modifiers shall be reported with R0075. **NOTE:** If only one patient is served, R0070 should be reported with no modifier since the descriptor for this code reflects only one patient seen.

- **UN** - Two patients served
- **UP** - Three patients served
- **UQ** - Four patients served
- **UR** - Five Patients served
- **US** - Six or more patients served

Payment for the above modifiers must be consistent with the definition of the modifiers. Therefore, for R0075 reported with modifiers, -UN, -UP, -UQ, and -UR, the total payment for the service shall be divided by 2, 3, 4, and 5 respectively. For modifier –US, the total payment for the service shall be divided by 6 regardless of the number of patients served. For example, if 8 patients were served, R0075 would be reported with modifier –US and the total payment for this service would be divided by 6.

The units field for R0075 shall always be reported as “1” except in extremely unusual cases. The number in the units field should be completed in accordance with the provisions of 100-04, chapter 23, section 10.2 item 24 G which defines the units field as the number of times the patient has received the itemized service during the dates listed.
in the from/to field. The units field must never be used to report the number of patients served during a single trip. Specifically, the units field must reflect the number of services that the specific beneficiary received, not the number of services received by other beneficiaries.

As a contractor priced service, MACs must initially determine a payment rate for portable x-ray transportation services that is associated with the cost of providing the service. In order to determine an appropriate cost, the MAC should, at a minimum, cost out the vehicle, vehicle modifications, gasoline and the staff time involved in only the transportation for a portable x-ray service. A review of the pricing of this service should be done every five years.

Direct costs related to the vehicle carrying the x-ray machine are fully allocable to determining the payment rate. This includes the cost of the vehicle using a recognized depreciation method, the salary and fringe benefits associated with the staff who drive the vehicle, the communication equipment used between the vehicle and the home office, the salary and fringe benefits of the staff who determine the vehicles route (this could be proportional of office staff), repairs and maintenance of the vehicle(s), insurance for the vehicle(s), operating expenses for the vehicles and any other reasonable costs associated with this service as determined by the MAC. The MAC will have discretion for allocating indirect costs (those costs that cannot be directly attributed to portable x-ray transportation) between the transportation service and the technical component of the x-ray tests.

Suppliers may send MACs unsolicited cost information. The MACs may use this cost data as a comparison to its contractor priced determination. The data supplied should reflect a year’s worth (either calendar or corporate fiscal) of information. Each provider who submits such data is to be informed that the data is subject to verification and will be used to supplement other information that is used to determine Medicare’s payment rate.

The MACs are required to update the rate on an annual basis using independently determined measures of the cost of providing the service. A number of readily available measures (e.g., ambulance inflation factor, the Medicare economic index) that are used by the Medicare program to adjust payment rates for other types of services may be appropriate to use to update the rate for years that the MAC does not recalibrate the payment. Each MAC has the flexibility to identify the index it will use to update the rate. In addition, the MAC can consider locally identified factors that are measured independently of CMS as an adjunct to the annual adjustment.

NOTE: No transportation charge is payable unless the portable x-ray equipment used was actually transported to the location where the x-ray was taken. For example, MACs do not allow a transportation charge when the x-ray equipment is stored in a nursing home for use as needed. However, a set-up payment (see §90.4, below) is payable in such situations. Further, for services furnished on or after January 1, 1997, MACs may not make separate payment under HCPCS code R0076 for the transportation of EKG equipment by portable x-ray suppliers or any other entity.
90.4 - Set-Up Component (HCPCS Code Q0092)  
(Rev. 1, 10-01-03)

A/B MACs (B) must pay a set-up component for each radiologic procedure (other than retakes of the same procedure) during both single patient and multiple patient trips under Level II HCPCS code Q0092. A/B MACs (B) do not make the set-up payment for EKG services furnished by the portable x-ray supplier.

90.5 - Transportation of Equipment Billed by a SNF to a MAC  

When a SNF bills for portable x-ray equipment transported to a site by van or other vehicle, the SNF should bill for the transportation costs using one of the following HCPCS codes along with the appropriate revenue code:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0070</td>
<td>Transportation of Portable x-ray Equipment and Personnel to Home or Nursing Home, Per Trip to Facility or Location, One Patient Seen.</td>
</tr>
<tr>
<td>R0075</td>
<td>Transportation of Portable x-ray Equipment and Personnel to Home or Nursing Home, Per Trip to Facility or Location, More than One Patient Seen, Per Patient.</td>
</tr>
</tbody>
</table>

These HCPCS codes are subject to the fee schedule.

Effective April 1, 2006, SNFs are required to report the appropriate modifiers to identify the number of patients served when billing for R0075. See section 90.3, of this chapter for the list of modifiers used to identify on the claim the number of patients served.

MACs shall ensure that payment for R0075 is consistent with the definition of the modifiers.

NOTE: When a SNF resident receives a portable x-ray service during the course of a Medicare-covered stay in the SNF, only the service’s professional component (representing the physician’s interpretation of the test results) is a separately billable physician service under Part B (see §20.1 of this chapter and §20.1.1 of Chapter 6). By contrast, the technical component representing the procedure itself, including any associated transportation and setup costs, would be subject to consolidated billing (the SNF “bundling” requirement for services furnished to the SNF’s Part A residents), and must be included on the SNF’s Part A bill for the resident’s covered stay (Bill Type 21x) rather than being billed separately under Part B (see §20.2.1of this chapter).

100 - Interpretation of Diagnostic Tests  
(Rev. 1, 10-01-03)

100.1 - X-rays and EKGs Furnished to Emergency Room Patients
The professional component of a diagnostic procedure furnished to a beneficiary in a hospital includes an interpretation and written report for inclusion in the beneficiary’s medical record maintained by the hospital. (See 42 CFR 415.120(a).)

A/B MACs (B) generally distinguish between an “interpretation and report” of an x-ray or an EKG procedure and a “review” of the procedure. A professional component billing based on a review of the findings of these procedures, without a complete, written report similar to that which would be prepared by a specialist in the field, does not meet the conditions for separate payment of the service. This is because the review is already included in the emergency department evaluation and management (E/M) payment. For example, a notation in the medical records saying “fx-tibia” or EKG-normal would not suffice as a separately payable interpretation and report of the procedure and should be considered a review of the findings payable through the E/M code. An “interpretation and report” should address the findings, relevant clinical issues, and comparative data (when available).

Generally, A/B MACs (B) must pay for only one interpretation of an EKG or x-ray procedure furnished to an emergency room patient. They pay for a second interpretation (which may be identified through the use of modifier “-77”) only under unusual circumstances (for which documentation is provided) such as a questionable finding for which the physician performing the initial interpretation believes another physician’s expertise is needed or a changed diagnosis resulting from a second interpretation of the results of the procedure.

When A/B MACs (B) receive only one claim for an interpretation, they must presume that the one service billed was a service to the individual beneficiary rather than a quality control measure and pay the claim if it otherwise meets any applicable reasonable and necessary test.

When A/B MACs (B) receive multiple claims for the same interpretation, they must generally pay for the first bill received. A/B MACs (B) must pay for the interpretation and report that directly contributed to the diagnosis and treatment of the individual patient. Consideration is not given to physician specialty as the primary factor in deciding which interpretation and report to pay regardless of when the service is performed. Consideration is not given to designation as the hospital’s “official interpretation” as a factor in determining which claim to pay. A/B MACs (B) pay for the interpretation billed by the cardiologist or radiologist if the interpretation of the procedure is performed at the same time as the diagnosis and treatment of the beneficiary. (This interpretation may be an oral report to the treating physician that will be written at a later time.)

If the first claim received is from a radiologist, A/B MACs (B) generally pay the claim because they would not know in advance that a second claim would be forthcoming. When A/B MACs (B) receive the claim from the emergency room (ER) physician and
can identify that the two claims are for the same interpretation, they must determine whether the claim from the ER physician was the interpretation that contributed to the diagnosis and treatment of the patient and, if so, they pay that claim. In such cases, A/B MACs (B) must determine that the radiologist’s claim was actually quality control and institute recovery action.

The two parties should reach an accommodation about who should bill for these interpretations. The following examples apply to A/B MACs (B):

EXAMPLE A:

A physician sees a beneficiary in the ER on January 1 and orders a single view chest x-ray. The physician reviews the x-ray, treats, and discharges the beneficiary. An A/B MAC (B) receives a claim from a radiologist for CPT code 71010-26 indicating an interpretation with written report with a date of service of January 3. The A/B MAC (B) will pay the radiologist’s claim as the first bill received. A/B MACs (B) do not have to develop the claim to determine whether the interpretation was a quality control service.

EXAMPLE B:

Same circumstances as Example A, except that the physician who sees the beneficiary in the ER also bills for CPT code 71010-26 with a date of service of January 1. The A/B MAC (B) will pay the first claim received. If the first claim is from the treating physician in the ER, and there is no indication the claim should not be paid, e.g., no reason to think that a complete, written interpretation has not been performed, payment of the claim is appropriate. The A/B MAC (B) will deny a claim subsequently received from a radiologist for the same interpretation as a quality control service to the hospital rather than a service to the individual beneficiary.

EXAMPLE C:

Same as Example B except that the claim from the radiologist uses modifier “-77” and indicates that, while the ER physician’s finding that the patient did not have pneumonia was correct, there was also a suspicious area of the lung suggesting a tumor that required further testing. In such situations, the A/B MAC (B) pays for both claims under the fee schedule.

EXAMPLE D:

The A/B MAC (B) receives separate claims for CPT code 71010-26 from a radiologist and a physician who treated that patient in the ER, both with a date of service of January 1. The first claim processed in the system is paid and the second claims will be identified and denied as a duplicate. If the denied “provider” is the radiologist and he raises an issue the A/B MAC (B) will develop the claim to determine whether the findings of the radiologist’s interpretation were conveyed to the treating physician (orally or in writing) in time to contribute to the diagnosis and treatment of the patient. If the radiologist’s
interpretation was furnished in time to serve this purpose, that claim should be paid, and the claim from the other physician should be denied as not reasonable and necessary.

110 - Special Billing Instructions for Claims Submitted to A/B MACs
(A)
(Rev. 1, 10-01-03)

Transmittal 368 (CR 1323 issued May 24-01) which revised the following SNF sections of the manual but not incorporated in the master manual.


For billing instructions, see chapter 25.

110.1 - Aborted Procedure
(Rev. 1, 10-01-03)

When a procedure is not completed, the SNF should bill an unlisted code (e.g., CPT code ending in 99) and show the actual charges for the procedure. The A/B MAC (A) will request additional data from the SNF to determine applicable payment. Deductible and coinsurance apply based on fee schedule rules.

110.2 - Combined Procedures (Radiology)
(Rev. 1, 10-01-03)

There are no separate codes covering certain combined procedures, e.g., a hand and forearm included in a single x-ray. The code with the higher fee schedule amount should be used.

110.3 - Payment for Radiopharmaceuticals
(Rev. 1, 10-01-03)

Radiopharmaceuticals are not subject to the fee schedule, but are paid based on reasonable cost when given in a SNF. SNFs report HCPCS codes 79900, A4641, A4642, A9500, A9503, and A9505, as appropriate, with revenue codes 0333, 034X, or 0636.

NOTE: The correct code to report is A4641. It replaced HCPCS code 78990. HCPCS code 78990 should not be reported because this code is not valid for Medicare purposes.
EXCEPTION: HCPCS codes 77781, 77782, 77783, and 77784 include payment for the radiopharmaceutical in the technical component. When these procedures are performed, SNFs do not report radiopharmaceutical codes 79900, A4641, A4642, A9500, A9503, and A9505. The A/B MAC (A) will reject codes 79900, A4641, A4642, A9500, A9503, and A9505 when they are billed for supplies used in conjunction with procedure codes 77781, 77782, 77783, and 77784.

120 - Radiology or Other Diagnostic Unlisted Service or Procedure Billing Instructions for A/B MAC (A) Claims (Rev. 1, 10-01-03)

Some radiology and other diagnostic services may not have a corresponding HCPCS code. This is because these are typically services that are rarely provided, unusual, or new. The provider should assign the appropriate “unlisted procedure” code to any such service. The following list contains the “unlisted procedure” codes along with the suggested revenue code for billing. These services are paid on a fee schedule if one exists or cost if a fee has not been established for SNFs. However, before billing any of these codes the provider needs to furnish a complete description of the radiology procedure to the A/B MAC (A) for review and analysis. The description should include a narrative definition of the procedure and a description of the nature, extent and need for the procedure and the time, effort, and equipment necessary. The A/B MAC (A) will determine if the provider has correctly identified the procedure as “unlisted.” If the procedure is not identified correctly, the A/B MAC (A) will inform the provider of the correct HCPCS code to assign to the procedure. If there is no fee schedule amount established, these services are paid based on cost to SNFs.

For Radiology:

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<th>Revenue Code</th>
<th>HCPCS</th>
<th>Definition</th>
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<td>032x</td>
<td>76499</td>
<td>Unlisted diagnostic radiologic procedure</td>
</tr>
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<td>0402</td>
<td>76999</td>
<td>Unlisted ultrasound procedure</td>
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<td>0333</td>
<td>77299</td>
<td>Unlisted procedure, therapeutic radiology clinical treatment planning</td>
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<td>0333</td>
<td>77399</td>
<td>Unlisted procedure, medical radiation physics, dosimetry and treatment devices</td>
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<td>77499</td>
<td>Unlisted procedure, therapeutic radiology clinical treatment management</td>
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<tr>
<td>0333</td>
<td>77799</td>
<td>Unlisted procedure, clinical brachytherapy</td>
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<tr>
<td>Revenue Code</td>
<td>HCPCS</td>
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<td>034x</td>
<td>78099</td>
<td>Unlisted endocrine procedure, diagnostic nuclear medicine</td>
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<tr>
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<td>78199</td>
<td>Unlisted hematopoietic, reticuloendothelial and lymphatic procedure, diagnostic nuclear medicine</td>
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<td>Unlisted genitourinary procedure, diagnostic nuclear medicine</td>
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<td>034x</td>
<td>78999</td>
<td>Unlisted miscellaneous procedure, diagnostic nuclear medicine</td>
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<tr>
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<td>79999</td>
<td>Unlisted radiopharmaceutical therapeutic procedure</td>
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For Other Diagnostic Procedures:

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<td>Unlisted diagnostic gastroenterology procedure</td>
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<td>047x</td>
<td>92599</td>
<td>Unlisted otorhinolaryngological service or procedure</td>
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<tr>
<td>048x</td>
<td>93799</td>
<td>Unlisted cardiovascular service or procedure</td>
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<td>Unlisted cardiovascular service or procedure</td>
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<td>93799</td>
<td>Unlisted cardiovascular service or procedure</td>
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<tr>
<td>046x</td>
<td>94799</td>
<td>Unlisted pulmonary service or procedure</td>
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</table>
Revenue Code | HCPCS | Definition
--- | --- | ---
074x | 95999 | Unlisted neurological or neuromuscular diagnostic procedure
0922 | 95999 | Unlisted neurological or neuromuscular diagnostic procedure

130 - EMC Formats
(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012

Billing instructions for the ASC X12 837 institutional claim format can be found in chapter 24 of this manual or, for Form CMS-1450 can be found in chapter 25 of this manual. Each revenue code requires a HCPCS code, modifier if applicable, units, line-item date of service, and charge.

Billing instructions for the ASC X12 837 professional claim format can be found in chapter 24 of this manual or for Form CMS-1500 can be found in this manual, Chapter 26, “Instructions for Completing Form CMS-1500.”

140 - Bone Mass Measurements (BMMs)
(Rev. 1416; Issued: 01-18-08; Effective: 01-01-07; Implementation: 02-20-08)

Sections 1861(s)(15) and (rr)(1) of the Social Security Act (the Act) (as added by §4106 of the Balanced Budget Act (BBA) of 1997) standardize Medicare coverage of medically necessary bone mass measurements by providing for uniform coverage under Medicare Part B. This coverage is effective for claims with dates of service furnished on or after July 1, 1998.

Effective for dates of service on and after January 1, 2007, the CY 2007 Physician Fee Schedule final rule expanded the number of beneficiaries qualifying for BMM by reducing the dosage requirement for glucocorticoid (steroid) therapy from 7.5 mg of prednisone per day to 5.0 mg. It also changed the definition of BMM by removing coverage for a single-photon absorptiometry as it is not considered reasonable and necessary under section 1862 (a)(1)(A) of the Act. Finally, it required that in the case of monitoring and confirmatory baseline BMMs, they be performed with a dual-energy x-ray absorptiometry (axial) test.
Conditions of Coverage for BMMs are located in Pub.100-02, Medicare Benefit Policy Manual, chapter 15

140.1 - Payment Methodology and HCPCS Coding
(Rev. 3227, Issued: 04-02-15, Effective; ASC-X12: January 1, 2012
Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET) for Solid Tumors: June 11, 2013, ICD-10: Upon Implementation of ICD-10

A/B MACs (B) pay for BMM procedures based on the Medicare physician fee schedule. Claims from physicians, other practitioners, or suppliers where assignment was not taken are subject to the Medicare limiting charge.

The A/B MACs (A) pay for BMM procedures under the current payment methodologies for radiology services according to the type of provider.

Do not pay BMM procedure claims for dual photon absorptiometry, CPT procedure code 78351.

Deductible and coinsurance apply.

Any of the following CPT procedure codes may be used when billing for BMMs through December 31, 2006. All of these codes are bone densitometry measurements except code 76977, which is bone sonometry measurements. CPT procedure codes are applicable to billing A/B MACs (A and B).

76070  76071  76075  76076  76078  76977  78350 G0130

Effective for dates of services on and after January 1, 2007, the following changes apply to BMM:

- New 2007 CPT bone mass procedure codes have been assigned for BMM. The following codes will replace current codes, however the CPT descriptors for the services remain the same:

  77078 replaces 76070
  77079 replaces 76071
  77080 replaces 76075
  77081 replaces 76076
  77083 replaces 76078
Certain BMM tests are covered when used to screen patients for osteoporosis subject to the frequency standards described in chapter 15, section 80.5.5 of the Medicare Benefit Policy Manual.

- Contractors will pay claims for screening tests when coded as follows:
  - Contains CPT procedure code 77078, 77079, 77080, 77081, 77083, 76977 or G0130, and
  - Contains a valid diagnosis code indicating the reason for the test is postmenopausal female, vertebral fracture, hyperparathyroidism, or steroid therapy. Contractors are to maintain local lists of valid codes for the benefit’s screening categories.

- Contractors will deny claims for screening tests when coded as follows:
  - Contains CPT procedure code 77078, 77079, 77081, 77083, 76977 or G0130, but
  - Does not contain a valid diagnosis code from the local lists of valid diagnosis codes maintained by the contractor for the benefit’s screening categories indicating the reason for the test is postmenopausal female, vertebral fracture, hyperparathyroidism, or steroid therapy.

Dual-energy x-ray absorptiometry (axial) tests are covered when used to monitor FDA-approved osteoporosis drug therapy subject to the 2-year frequency standards described in chapter 15, section 80.5.5 of the Medicare Benefit Policy Manual.

- Contractors will pay claims for monitoring tests when coded as follows:
  - Contains CPT procedure code 77080, and
  - Contains 733.00, 733.01, 733.02, 733.03, 733.09, 733.90, or 255.0 as the ICD-9-CM diagnosis code or M81.0, M81.8, M81.6 or M94.9 as the ICD-10-CM diagnosis code.

- Contractors will deny claims for monitoring tests when coded as follows:
  - Contains CPT procedure code 77078, 77079, 77081, 77083, 76977 or G0130, and
  - Contains 733.00, 733.01, 733.02, 733.03, 733.09, 733.90, or 255.0 as the ICD-9-CM diagnosis code, but
• Does not contain a valid ICD-9-CM diagnosis code from the local lists of valid ICD-9-CM diagnosis codes maintained by the contractor for the benefit’s screening categories indicating the reason for the test is postmenopausal female, vertebral fracture, hyperparathyroidism, or steroid therapy.

• Does not contain a valid ICD-10-CM diagnosis code from the local lists of valid ICD-10-CM diagnosis codes maintained by the contractor for the benefit’s screening categories indicating the reason for the test is postmenopausal female, vertebral fracture, hyperparathyroidism, or steroid therapy.

• Single photon absorptiometry tests are not covered. Contractors will deny CPT procedure code 78350.

The A/B MACs (A) are billed using the ASC X12 837 institutional claim format or hardcopy Form CMS-1450. The appropriate bill types are: 12X, 13X, 22X, 23X, 34X, 71X (Provider-based and independent), 72X, 73X (Provider-based and freestanding), 83X, and 85X. Effective April 1, 2006, type of bill 14X is for non-patient laboratory specimens and is no longer applicable for bone mass measurements. Information regarding the claim form locators that correspond to the HCPCS/CPT code or Type of Bill are found in chapter 25.

Providers must report HCPCS codes for bone mass measurements under revenue code 320 with number of units and line item dates of service per revenue code line for each bone mass measurement reported.

A/B MACs (B) are billed for bone mass measurement procedures using the ASC X12 837 professional claim format or hardcopy Form CMS-1500.

140.2 – Denial Messages for Noncovered Bone Mass Measurements
(Rev. 3650, Issued: 11-10-16, Effective: 02-10-17, Implementation: 02-10-17)

The contractor shall use the following remittance advice messages and associated codes when rejecting/denying claims under the conditions described in 140.1. This CARC/RARC combination is compliant with CAQH CORE Business Scenario Three.

Group Code: PR (if claim is received with a GA modifier) otherwise CO
CARC: 50
RARC: Alert M38 (if ABN was issued) or M27 (if ABN was not issued)
MSN: 16.10 and 36.1 (if ABN was issued) or 36.2 (if ABN was not issued)

NOTE: A/B MACs (A) are not to include MSN 16.10.

140.4 – Advance Beneficiary Notices (ABNs)
(Rev. 1236, Issued: 05-11-07, Effective: 01-01-07, Implementation: 07-02-07)
For the denial situations listed in Section 140.1, physicians, practitioners and hospitals are liable for payment unless they issue an appropriate ABN. Contractors will utilize the appropriate messages, see sections 140.2 and 140.3.

150 - Place of Service (POS) Instructions for the Professional Component (PC or Interpretation) and the Technical Component (TC) of Diagnostic Tests

(Rev. 3315, Issued: 08-06-15, Effective: 01-01-16, Implementation: 01-04-16)

Many of the diagnostic services, including radiology services, provided by physicians/practitioners contain both a technical component (TC) and a professional component (PC). Often, the PC and TC of diagnostic services are furnished in different settings. As a general policy, the POS code assigned by the physician/practitioner for the PC of a diagnostic service shall be the setting in which the beneficiary received the TC service.

A. Interpretation Provided Telephonically by Wireless Remote

Teleradiology services (radiology services that do not require a face-to-face encounter with the patient furnished through the use of a telecommunications system) are discussed in Pub. 100-02, Medicare Benefit Policy Manual, chapter 15, section 30. The interpretation of an x-ray, electrocardiogram, electroencephalogram and tissue samples are listed as examples of these services.

In cases where the face-to-face requirement is obviated such as those when a physician/practitioner provides the PC/interpretation of a diagnostic test, from a distant site, the POS code assigned by the physician/ practitioner shall be the setting in which the beneficiary received the TC service. The POS code for a teleradiology interpretation is generally the place where the beneficiary received the TC, or face-to-face encounter. The POS code representing the setting where the beneficiary received the TC is entered in the ASC X12 837 professional claim format or in item 24B on the paper claim Form CMS 1500. In cases where it is unclear which POS code applies, the Medicare contractor can provide guidance.

For example: A beneficiary receives an MRI on an outpatient hospital campus near his/her home. The outpatient hospital submits a claim that would correspond to the TC portion of the MRI. The physician furnishes the PC portion of the beneficiary’s MRI from his/her office location - POS code 22 (On Campus-Outpatient Hospital) shall be used on the physician’s claim to indicate that the beneficiary received the face-to-face portion of the MRI, the TC, on the campus of an outpatient hospital.

B. Interpretation Provided Outside of the United States

Generally, Medicare will not pay for health care or supplies that are performed outside the United States (U.S.). The term “outside the U.S.” means anywhere other than the 50
states of the U.S., the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands. See Pub. 100-02, chapter 16, section 60, for exceptions to the “outside the U.S.” exclusions.

C. Interpretation Provided Under Arrangement – To A Hospital

Separate TC and PC

If a diagnostic test which has a separate TC and PC is provided under arrangement to a hospital, the physician who reads the test can bill and be paid for the professional component. Both the technical and professional components of the test are also subject to the physician self-referral prohibition.

The appropriate POS code for the interpretation (or PC) is the setting where the beneficiary received the TC service. If the interpretation is performed in the physician’s office and the patient received the TC service in the provider-based outpatient hospital setting, the physician assigns POS code 22, for On Campus-Outpatient Hospital, or POS 19, for Off Campus-Outpatient Hospital, on the claim for the interpretation or PC.

Global Service

When a physician performs a diagnostic test under arrangement to a hospital and the test and the interpretation are not separately billable, the interpretation cannot be billed by the physician. In this scenario, the hospital is the only entity that can bill for the diagnostic test which encompasses the interpretation. There is no POS code for the interpretation since a physician claim is not generated.

D. Global Billing

Billing globally for services that are split into PC and TC components is only possible when the TC and the physician who provides the PC of the diagnostic service are furnished by the same physician or supplier entity and the PC and TC components are furnished within the same Medicare physician fee schedule payment locality. Merely applying the same POS code to the PC as that of the TC (as described in “A” above) does not permit global billing for any diagnostic procedure.

E. Determination of Payment Locality

Under the Medicare physician fee schedule (MPFS), payment amounts are based on the relative resources required to provide services and vary among payment localities as resource costs vary geographically as measured by the geographic practice cost indices (GPCIs). The payment locality is determined based on the location where a specific service code was furnished. For purposes of determining the appropriate payment locality, CMS requires that the address, including the ZIP code for each service code be included on the claim form in order to determine the appropriate payment locality. The
location in which the service code was furnished is entered on the ASC X12 837 professional claim format or in Item 32 on the paper claim Form CMS 1500.

Global Service Code

If the global diagnostic service code is billed, the biller (either the entity that took the test, physician who interpreted the test, or separate billing agent) must report the address and ZIP code of where the test was furnished on the bill for the global diagnostic service code. In other words, when the global diagnostic service code is billed, for example, chest x-ray as described by HCPCS code 71010 (no modifier TC and no modifier -26), the locality is determined by the ZIP code applicable to the testing facility, i.e. where the TC of the chest x-ray was furnished. The testing facility (or its billing agent) enters the address and ZIP code of the setting/location where the test took place. This practice location is entered using the ASC X12 837 professional claim format or in Item 32 on the paper claim Form CMS 1500. As explained in D above, in order to bill for a global diagnostic service code, the same physician or supplier entity must furnish both the TC and the PC of the diagnostic service and the TC and PC must be furnished within the same MPFS payment locality.

Separate Billing of Professional Interpretation

If the same physician or other supplier entity does not furnish both the TC and PC of the diagnostic service, or if the same physician or other supplier entity furnishes both the TC and PC but the professional interpretation was furnished in a different payment locality from where the TC was furnished, the professional interpretation of a diagnostic test must be separately billed with modifier -26 by the interpreting physician.

When the physician’s interpretation of a diagnostic test is billed separately from the technical component, as identified by modifier -26, the interpreting physician (or his or her billing agent) must report the address and ZIP code of the interpreting physician’s location on the claim form. If the professional interpretation was furnished at an unusual and infrequent location for example, a hotel, the locality of the professional interpretation is determined based on the Medicare enrolled location where the interpreting physician most commonly practices. The address and ZIP code of this practice location is entered using the ASC X12 837 professional claim format or in Item 32 on the paper claim Form CMS 1500.
## Transmittals Issued for This Chapter

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<td>R3650CP</td>
<td>11/10/2016</td>
<td>Updates to Pub. 100-04, Chapters 8, 13 and 14 to Correct Remittance Advice Messages</td>
<td>02/10/2016</td>
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<td>R3387CP</td>
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<td>01/04/2016</td>
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<td>04/03/2015</td>
<td>Updates to the Medicare Internet-Only Manual Chapters for Skilled Nursing Facility (SNF) Providers</td>
<td>06/15/2015</td>
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<td>04/02/2015</td>
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