

GE Healthcare

Reimbursement Information for Single Photon Emission Computed Tomography (SPECT) and Computed Tomography (CT)¹



April 2010

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SPECT/CT technology enables both single photon emission computed tomography (SPECT) and computed tomography (CT) images to be taken in one imaging session. In addition, these images are inherently registered or fused. SPECT is nuclear imaging that provides functional data collected from multiple views and reconstruction of images. CT provides anatomical mapping, or localization. CT attenuation correction may also be used to correct the fused image to remove attenuation artifacts.

This overview addresses Medicare coding, coverage and payment for SPECT/CT² when performed in the hospital inpatient, hospital outpatient department, independent diagnostic testing facility (IDTF) and physician office settings³. While it focuses on Medicare program policies, these policies may also be applicable to selected private payers throughout the country.

Current Procedural Terminology (CPT) Coding, Definitions and Medicare Payment Rates

The following provides 2010 national Medicare physician fee schedule (MPFS) and facility payment rates, for example CPT codes that may be used. **Payment will vary by geographic regions.**

Table 1: 2010 Medicare Reimbursement for SPECT/CT (Reflects National Rates, Unadjusted For Locality)

CPT/HCPCS Code	Physician		Facility	
	Reimbursement Component	Medicare Physician Fee Schedule Amount ⁴	APC	Hospital Outpatient Payment ⁵
LIVER IMAGING				
CPT 78205 Liver imaging (SPECT)	Professional (-26)	\$35.72	0394	\$290.59
	Technical (-TC)**	\$182.20		
	Global	\$217.92		
CPT 78206 Liver imaging (SPECT); with vascular flow	Professional (-26)	\$47.99	0394	\$290.59
	Technical (-TC)**	\$275.28		
	Global	\$323.27		
BONE/JOINT IMAGING				
CPT 78320 Bone and/or joint imaging; tomographic (SPECT)	Professional (-26)	\$52.31	0396	\$247.27
	Technical (-TC)**	\$181.84		
	Global	\$234.15		

*Professional – is the physician payment.

**Technical – is the facility payment.

CPT/HCPCS Code	Physician		Facility	
	Reimbursement Component	Medicare Physician Fee Schedule Amount ⁴	APC	Hospital Outpatient Payment ⁵
HEART AND VASCULAR				
CPT 78451 –New Code Myocardial perfusion imaging, tomographic (SPECT) (including attenuation correction, qualitative or quantitative wall motion, ejection fraction by first pass or gated technique, additional quantification, when performed); single study, at rest or stress (exercise or pharmacologic)	Professional (-26)	\$66.39	0377	\$774.59
	Technical (-TC)**	\$246.78		
	Global	\$313.17		
CPT 78452 –New Code Myocardial perfusion imaging, tomographic (SPECT) (including attenuation correction, qualitative or quantitative wall motion, ejection fraction by first pass or gated technique, additional quantification, when performed); multiple studies, at rest and/or stress (exercise or pharmacologic) and/or redistribution and/or rest reinjection	Professional (-26)	\$78.65	0377	\$774.59
	Technical (-TC)**	\$361.15		
	Global	\$439.80		
HEART AND VASCULAR – PLANAR IMAGING				
CPT 78453 –New Code Myocardial perfusion imaging, planar (including qualitative or quantitative wall motion, ejection fraction by first pass or gated technique, additional quantification, when performed); single study, at rest or stress (exercise or pharmacologic)	Professional (-26)	\$48.71	0377	\$774.59
	Technical (-TC)**	\$221.16		
	Global	\$269.87		
CPT 78454 –New Code Myocardial perfusion imaging, planar (including qualitative or quantitative wall motion, ejection fraction by first pass or gated technique, additional quantification, when performed); multiple studies, at rest and/or stress (exercise or pharmacologic) and/or redistribution and/or rest reinjection	Professional (-26)	\$64.22	0377	\$774.59
	Technical (-TC)**	\$318.58		
	Global	\$382.80		
INFLAMMATION AND INFECTION				
CPT 78466 Myocardial imaging, infarct avid, planar; qualitative or quantitative	Professional (-26)	\$35.36	0398	\$305.59
	Technical (-TC)**	\$134.21		
	Global	\$169.57		

*Professional – is the physician payment.

**Technical – is the facility payment.

CPT/HCPCS Code	Physician		Facility	
	Reimbursement Component	Medicare Physician Fee Schedule Amount ⁴	APC	Hospital Outpatient Payment ⁵
CPT 78468 Myocardial imaging, infarct avid, planar; with ejection fraction by first pass technique	Professional (-26)	\$42.21	0398	\$305.59
	Technical (-TC)**	\$168.49		
	Global	\$210.70		
CPT 78469 Myocardial imaging, infarct avid, planar; tomographic SPECT with or without quantification	Professional (-26)	\$47.62	0398	\$305.59
	Technical (-TC)**	\$192.66		
	Global	\$240.29		
CPT 78494 Cardiac blood pool imaging, gated equilibrium, SPECT, at rest, wall motion study plus ejection fraction, with or without quantitative processing	Professional (-26)	\$61.70	0398	\$305.59
	Technical (-TC)**	\$199.52		
	Global	\$261.21		
BRAIN/CEREBROSPINAL FLUID				
CPT 78607 Brain imaging, tomographic (SPECT)	Professional (-26)	\$61.33	0402	\$578.27
	Technical (-TC)**	\$277.81		
	Global	\$339.14		
CPT 78647 Cerebrospinal fluid flow, imaging (not including introduction of material); tomographic (SPECT)	Professional (-26)	\$44.02	0402	\$578.27
	Technical (-TC)**	\$262.66		
	Global	\$306.67		
KIDNEY IMAGING				
CPT 78710 Kidney imaging morphology; tomographic (SPECT))	Professional (-26)	\$32.47	0404	\$324.83
	Technical (-TC)**	\$180.40		
	Global	\$212.87		
TUMOR LOCALIZATION				
CPT 78802 Radiopharmaceutical localization of tumor or distribution of radiopharmaceutical agent(s); whole body, single day imaging	Professional (-26)	\$42.93	0414	\$510.08
	Technical (-TC)**	\$259.77		
	Global	\$302.70		

*Professional – is the physician payment.

**Technical – is the facility payment.

CPT/HCPCS Code	Physician		Facility	
	Reimbursement Component	Medicare Physician Fee Schedule Amount ⁴	APC	Hospital Outpatient Payment ⁵
CPT 78803 Radiopharmaceutical localization of tumor or distribution of radiopharmaceutical agent(s); tomographic (SPECT)	Professional (-26)	\$54.48	0414	\$510.08
	Technical (-TC)**	\$276.01		
	Global	\$330.48		
INFLAMMATION AND INFECTION				
CPT 78807 Radiopharmaceutical localization of inflammatory process; tomographic (SPECT)	Professional (-26)	\$54.12	0406	\$289.89
	Technical (-TC)**	\$275.64		
	Global	\$329.76		
MISCELLANEOUS				
CPT 78999 Unlisted miscellaneous procedure, diagnostic nuclear medicine	Professional (-26)	Carrier Priced	0389	\$112.46
	Technical (-TC)**	Carrier Priced		
	Global	Carrier Priced		
<i>*Professional – is the physician payment.</i> <i>**Technical – is the facility payment.</i>				

Modifiers

26 – Professional Component

A physician who performs the interpretation of a SPECT imaging procedure in the hospital outpatient setting may submit a charge for the professional component of the imaging service using a modifier (-26) appended to the procedure code.

Hospital Inpatient – ICD-9-CM Procedure Coding

ICD-9-CM procedure codes are used to report procedures performed in a hospital inpatient setting. The following is the ICD-9-CM procedure code that is typically used to report SPECT/CT for selected tumor imaging and localization.

- 92.02 Liver scan and radioisotope function study
- 92.03 Renal scan and radioisotope function study
- 92.05 Cardiovascular and hematopoietic scan and radioisotope function study
- 92.11 Cerebral scan
- 92.12 Scan of other sites of head
- 92.14 Bone scan
- 92.19 Scan of other site
- 92.29 Other radiotherapeutic procedure

ICD-9-CM Diagnosis Coding

It is the physician's ultimate responsibility to select the codes that appropriately represent the service performed, and to report the ICD-9-CM code based on his or her findings or the pre-service signs, symptoms or conditions that reflect the reason for doing the SPECT/CT.

Documentation Requirements

SPECT imaging for tumor localization is described by CPT code 78803, *Radiopharmaceutical localization of tumor or distribution of radiopharmaceutical agent(s); tomographic (SPECT)*. Per the Society of Nuclear Medicine (SNM) and the AMA, the SPECT imaging code contemplates the 3D reconstruction of the images; therefore, a separate 3D rendering code (i.e., CPT codes 76376 or 76377) should not be reported with the SPECT code.⁶ Specifically, in *CPT® 2010*, immediately under the listings of the 3D rendering codes, the AMA provides a list of codes that should not be reported in conjunction with these codes and CPT 78803 is included in this list.⁷

According to the American College of Radiology (ACR), it is appropriate to report separate codes for SPECT, CT and fusion localization only if each procedure is⁸:

- A complete study and
- Medically necessary (according to Medicare coverage policies) and
- Interpreted separately

The ACR further advises that if a complete **CT scan** is not specifically ordered, and the CT is performed for localization

purposes only, it is not appropriate to code the CT study separately⁹. Currently, there is no CPT code for the **fused procedure** resulting from SPECT/CT imaging. The SNM advises providers to report the fused procedure using the unlisted CPT code 78999, *Unlisted miscellaneous procedure, diagnostic nuclear medicine*¹⁰. Finally, even though **CT attenuation** correction may be performed with SPECT/CT imaging, it is not separately reported¹¹.

Payment Methodologies for SPECT/CT Imaging

Medicare reimburses for SPECT/CT imaging and localization procedures when the services are within the scope of the provider's license and are deemed medically necessary. The following describes the various payment methods by site of service.

Site of Service

Physician Office Setting

In the office setting, a physician who owns imaging equipment and performs the service may report the global code without a -26 modifier.

Hospital Outpatient Setting

When the SPECT/CT is performed in the hospital outpatient setting, the hospital may bill for the technical component of the service as an outpatient service.

The CPT code filed by the hospital will be assigned to a hospital outpatient system Ambulatory Payment Classification (APC) payment system, and payment will be based on the APC grouping. However, for Medicare, the hospital outpatient facility and the physician must report the same CPT code. If the physician is a hospital employee, the hospital may submit a charge for the global service.

Based on the Medicare Hospital Outpatient Prospective Payment System (HOPPS), the technical components of all image-guidance procedures that are performed in the hospital outpatient department are considered a packaged service. This means that the payment to the facility for these services is included in the payment for the primary procedure.

Hospital Inpatient Setting

Charges for the imaging services occurring in the hospital inpatient setting would be considered part of the charges submitted for the inpatient stay and payment would be made under the Medicare MS-DRG payment system. However, the physician may still submit a bill for his/her professional services regardless. Note: Medicare reimburses for imaging services when the services are within the scope of the provider's license and are deemed medically necessary.

Coverage

Medicare's National Coverage Determination (NCD) for SPECT is limited to certain indications, including selected tumors. It does not address specific coverage requirements for SPECT in the diagnosis, staging, treatment monitoring, or restaging of tumors. In addition, the NCD does not address SPECT/CT fusion imaging. The NCD is described in the Internet Manual for Medicare National Coverage Determinations at http://www.cms.hhs.gov/manuals/downloads/ncd103c1_Part4.pdf (scroll to Section 220.1).

As noted above, if a complete CT scan is not specifically ordered, and the CT is performed for localization purposes only, it is not appropriate to code the CT study¹². In this case, separate coverage for CT localization is not required.

Alternatively, if a complete CT study is ordered, medically necessary (according to Medicare coverage determinations) and given a separate interpretation, coverage must be addressed. Medicare's national coverage determination (NCD) for CT states that CT scans may be covered as diagnostic services if reasonable and necessary, and if performed on an FDA-approved model of CT equipment. The NCD indicates that local Medicare contractors have discretion to determine the circumstances under which a CT scan is covered. The NCD does not address CT localization for SPECT/CT fusion imaging or CT attenuation correction. The NCD for CT is described in the Internet Manual for Medicare National Coverage Determinations at http://www.cms.hhs.gov/manuals/downloads/ncd103c1_Part4.pdf (scroll to Section 220.1).

With respect to private payers, some may rely on Medicare reimbursement determinations, while others consider alternative information. Therefore, it is important to consult with individual private payers regarding coverage for these procedures as well.

Coverage for Diagnostic Radiopharmaceuticals

There is no Medicare national coverage determination on diagnostic radiopharmaceuticals. Some Medicare local contractors have developed LCDs that address coverage for diagnostic radiopharmaceuticals. LCDs may restrict coverage to specific indications and patient conditions. Absence of a local determination does not imply non-coverage. The local contractors may review medical necessity on a case-by-case basis. To access LCDs, refer to the link noted above.

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Footnotes:

¹Information presented in this document is current as of January 1, 2010. Any subsequent changes which may occur in coding, coverage and payment are not reflected herein.

²The Food and Drug Administration (FDA) approved labeling for a particular item of GEHC equipment may not specifically cover all of the procedures discussed in this customer advisory. Some payers may in some instances treat a procedure which is not specifically covered by the equipment's FDA-approved labeling as a non-covered service.

³The federal statute known as the Stark Law (42 U.S.C. §1395nn) imposes certain requirements which must be met in order for physicians to bill Medicare patients for in-office radiology services. In some states, similar laws cover billing for all patients. In addition, licensure, certificate of need, and other restrictions may be applicable.

⁴Third party reimbursement amounts and coverage policies for specific procedures will vary by payer and by locality. The technical and professional components are paid under the Medicare physician fee schedule (MPFS). The MPFS payment is based on relative value units published in Federal Register, Vol. 74, No. 226, November 25, 2009 and the Federal Register, Vol. 74, No. 236, December 10, 2009, and updated as per CR6973 and Medicare Physician Fee Schedule Correction Notice dated May 5, 2010. Amounts do not necessarily reflect any subsequent changes in payment since publication. To confirm reimbursement rates for specific codes, consult with your local Medicare contractor.

⁵Third party reimbursement amounts and coverage policies for specific procedures will vary by payer and by locality. Only national rates unadjusted for local wage and cost differences are provided.

The technical component is a payment amount assigned to an Ambulatory Payment Classification under the hospital outpatient prospective payment system, as published in the Federal Register, Vol. 74, No. 223, November 20, 2009. The professional component is paid under the Medicare physician fee schedule (MPFS). To confirm reimbursement rates for specific codes, consult with your local Medicare contractor.

⁶Response to coding inquiry submitted to the Society of Nuclear Medicine, response dated December 7, 2004.

⁷ACPT codes and descriptions only are copyright © 2009 American Medical Association. All rights reserved. No fee schedules are included in CPT. The American Medical Association assumes no liability for data contained or not contained herein.

⁸ACR Radiology Coding Source, May/June 2003, Vol. 1, Issue 3.

⁹Ibid.

¹⁰Response to coding question posted on the Society of Nuclear Medicine website, response dated June 2, 2008. <http://interactive.snm.org/index.cfm?PageID=5630&RRID=1995>

¹¹Effective January 1, 2005, existing CPT codes, 78464 and 78465, for SPECT myocardial perfusion imaging include a new phrase, "attenuation correction, when performed". (American Medical Association. *CPT Changes- An Insider's View 2005*) It can be concluded that the same scenario exists for attenuation correction when used with SPECT as reported by CPT code 78803.

¹²ACR Radiology Coding Source, May/June 2003, Vol. 1, Issue 3.

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