Subject: Single Photon Emission Computed Tomography (SPECT)*

Effective Date: February 27, 2007

Department(s): Utilization Management

Policy: SPECT is reimbursable under Plans administered by QualCare, Inc, when performed for indications in this policy.

Objective: To assure proper and consistent reimbursement and to delineate indications for a specific imaging modality.

Procedure:

A. The following are indications for which SPECT is reimbursable under Plans administered by QualCare, Inc.:  

1. Cardiac Conditions

   A. New, recurrent or worsening cardiac symptoms and ANY of the following:
      • High pre-test probability of coronary artery disease (Men age 40-59 with typical/definite angina pectoris; men and women age 60 and over with typical/definite angina pectoris)
      • History of CAD by prior anatomic evaluation of the
coronary arteries or coronary artery bypass/percutaneous coronary intervention

- Evidence or high suspicion of ventricular tachycardia
- Age \( \geq 50 \) years with known diabetes mellitus
- Coronary artery calcium score
- Electrocardiogram is uninterpretable for ischemia (including complete left bundle branch block, ventricular paced rhythm, WPW, baseline ST segment depression \( > 0.5 \) mm, LVH with strain pattern, baseline inferior or lateral T wave inversion, individual is on digitalis)
- Continued symptoms with a prior normal or submaximal exercise treadmill test and CAD remains a concern
- A recent equivocal, borderline, or abnormal stress test and CAD remains a concern
- Heart rate \(< 50\) on beta-blocker or calcium channel blocker therapy and it is assessed that an adequate workload for a diagnostic exercise stress test will not be achieved
- Inadequate exercise stress test due to physical inability to achieve a maximum exercise workload or a suspected false positive exercise stress test (abnormal but does not appear to be due to macrovascular CAD)
B. To evaluate for inducible ischemia within 3 months of an acute coronary event in the absence of chest pain or heart failure and any prior coronary angiography or imaging stress test for the current episode.

C. Assessment of myocardial viability (hibernating myocardium with left ventricular dysfunction) prior to referral for myocardial revascularization procedures.

D. Unheralded syncope (NOT near syncope)

E. Asymptomatic individual with an uninterpretable ECG that has never been evaluated or is a new uninterpretable change.

F. Individual with an elevated cardiac troponin.

G. One routine study 2 years or more after a stent, except with a left main stent where it can be done at 1 year.

H. One routine study at 5 years or more after CABG, without cardiac symptoms.

I. Every 2 years if there was documentation of previous “silent ischemia” on the imaging portion of a stress test but not on the ECG portion.

J. To assess for CAD in an individual taking flecainide or propafenone.

K. Prior anatomic imaging study (coronary angiogram or CCTA) demonstrating coronary stenosis in a major coronary branch that is of uncertain functional significance.
L. Evaluating new, recurrent or worsening left ventricular dysfunction/CHF

II. Non-cardiac Conditions

a. Assessment of hepatic hemangioma(s)
b. In patients with seizure disorder, as an alternative to PET scanning in presurgical detection of seizure focus
c. Distinction of bone infection from soft tissue infection
d. Differentiation, in bone lesions, among infection, neoplasm, vascular insufficiency or trauma
e. Abscess localization
f. Differentiation of necrotic or radiation-injured or inflammatory tissue from brain neoplasm
g. Differentiation of necrotic tissue from lymphoma
h. Initial staging and assessment of response of lymphoma to chemotherapy
i. Diagnosis and staging of neuroendocrine tumors
j. Parathyroid imaging
k. Diagnosis of pulmonary embolism

III. For the following conditions (not an all-inclusive list), SPECT is NOT reimbursable because there is not a satisfactory body of peer-reviewed literature supporting its use:

a. Dementia: Initial or differential diagnosis
b. Spinal disorders other than osteomyelitis
c. Stroke
d. Internal carotid artery scan during temporary balloon occlusion

e. Stress fractures

f. Assessment of pervasive developmental disorder, including autism and ADHD

g. Assessment of personality disorders

h. Differentiation of Parkinson’s disease from other Parkinsonian syndromes

i. Assessment and follow-up for suspected subacute or chronic central nervous system Lyme disease

j. Chronic fatigue syndrome

k. Malignancies other than those listed as reimbursable

l. Neuropsychiatric disorders without evidence of cerebrovascular disease

IV. **CPT codes covered** by this policy include the following:

a. 78205 SPECT of liver

b. 78206 SPECT of liver with vascular flow

c. 78320 SPECT of bone and joint

d. 78451 SPECT myocardial perfusion, single

e. 78452 SPECT myocardial perfusion, multiple

f. 78469 SPECT myocardial imaging, infarct avid, planar
g. **78494** SPECT cardiac imaging, wall motion
h. **78607** SPECT of brain, complete
i. **78803** SPECT tumor distribution
j. **78807** SPECT inflammatory process localization
k. **87071** SPECT of parathyroids
l. **87072** SPECT of parathyroids with acquired CT

V. **CPT codes excluded** by this policy include the following:
   a. **78647** SPECT cerebrospinal fluid flow
   b. **78710** SPECT kidney morphology

References


UpToDate-Nervous System Lyme disease, versions 15.0, updated March 24, 2015. Accessed at UpToDate.com

American College of Radiology Appropriateness Criteria®: Dementia and Movement Disorders, last review date:2014. Accessed online 11/15/15 at ACR.org


Torosyan N, Silverman DH, Neuronuclear imaging in the evaluation of dementia and mild decline in cognition. Semin Nucl med .2012;42(6):415-22(Nov)

American College of Radiology Appropriateness Criteria®: Dementia and Movement Disorders, last review date:2010. Accessed online 11/29/12 at ACR.org


*Consistent with Summary Plan Description (SPD). When there is discordance between this policy and the SPD, the provisions of the SPD prevail.*