

POSITRON EMISSION TOMOGRAPHY (PET)

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I. PROCEDURE CODES

78459, 78491, 78492, 78608, **78609**, 78810

II. DESCRIPTION

Positron emission tomography (PET) is a nuclear imaging procedure that uses short-lived radiopharmaceuticals to detect and quantify the metabolic abnormalities of disease processes.

III. POLICY

A. Following medical review, PET scans may be cost-shared by TRICARE when performed to localize epileptogenic foci in patients with complex partial seizure disorders who are being considered for neurosurgical resection of the focus.

1. The patient's seizures are intractable to medical therapy;
2. Prior diagnostic studies suggest, but do not confirm, the presence of a localized seizure focus; and
3. The seizure focus is located in an area of the brain amenable to surgical resection.

B. Following medical review, PET scans may be covered for evaluation of ischemic heart disease when:

1. The imaging agent used is Rubidium 82 (Rb 82); and
2. PET is used in place of, but not in addition to, single photon emission computed tomography (SPECT); or
3. A SPECT was inconclusive (test results are equivocal, technically uninterpretable, or discordant with a patient's other clinical data).

C. Following medical review, FDG-PET scans may be covered for the diagnosis and management of lung cancer.

D. Pet scans for other indications are covered when reliable evidence supports that the use of PET is safe, effective and comparable or superior to standard care (proven).

IV. EXCLUSIONS

PET is considered unproven and is not covered for the following (see [Chapter 8, Section 14.1](#)):

- A. The differential diagnosis of symptomatic intracranial masses.
- B. The differentiation of low-grade and high-grade brain tumors.
- C. The guidance of stereotactic biopsy or biopsies of documented intracranial mass.
- D. The differentiation of recurrent brain tumor from radionecrosis.
- E. The monitoring of response to treatment in patients with brain tumors.
- F. The assessment of cerebrovascular disease, including ischemic disease, hemorrhagic disease, and arteriovenous malformations.
- G. PET with deoxy-2-Fluro-D-glucose (FDG). (Rb82 is the only PET radiopharmaceutical approved by the FDA for cardiac application.)

V. EFFECTIVE DATE

December 1, 1995, for FDG-PET for lung cancer.

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