



PET SCANS FOR THE CHARACTERIZATION OF DEMENTIA

Medicare Guidelines:

Positron Emission Tomography (FDG-PET) scan is reasonable and necessary in patients with documented cognitive decline of at least six months and a recently established diagnosis of dementia who meet diagnostic criteria for both Alzheimer's disease (AD) and frontotemporal dementia (FTD), who have been evaluated for specific alternate neurodegenerative diseases or causative factors, and for whom the cause of the clinical symptoms remains uncertain. The onset, clinical presentation, or course of cognitive impairment is atypical for AD, and FTD is suspected as an alternative neurodegenerative cause of the cognitive decline. Specifically, symptoms such as social disinhibition, awkwardness, difficulties with language, or loss of executive function are more prominent early in the course of FTD than the memory loss typical of AD

The following additional conditions must be met:

- The patient has had a comprehensive clinical evaluation (as defined by the American Academy of Neurology (AAN)) encompassing a medical history from the patient and a well-acquainted informant (including assessment of activities of daily living), physical and mental status examination (including formal documentation of cognitive decline at two time points at least six months apart) aided by cognitive scales or neuropsychological testing, laboratory tests, and structural imaging such as magnetic resonance imaging (MRI) or computed tomography (CT);
- The patient has been evaluated by a physician experienced in the diagnosis and assessment of dementia;
- The evaluation did not identify a likely, specific neurodegenerative disease or cause for the clinical symptoms, and information available through FDG-PET is reasonably expected to help clarify the differential diagnosis between FTD and AD;
- The FDG-PET scan is performed in facilities that have all the accreditation necessary to operate such equipment. The reading of the scan should be done by an expert in nuclear medicine, radiology, neurology, or psychiatry with substantial experience interpreting such scans in the presence of dementia;
- A brain single photon emission computed tomography (SPECT) or FDG-PET scan has not been obtained for the same indication;

Documentation needed:

date of onset of symptoms;
mini mental status exam (MMSE) or similar test score;
report from any neuropsychological testing performed;
diagnosis of clinical syndrome (e.g., mild cognitive impairment; dementia);
presumptive cause (possible, probable, uncertain
results of structural imaging (MRI or CT);
relevant laboratory tests (B12, thyroid hormone);
number and name of prescribed medications;

Private payers may cover different conditions, please contact our office for assistance with private payer coverage 737-3211

**FDG-PET DEMENTIA EVALUATION
MEDICARE ALGORITHM**

1. Does the patient have diminished memory and other cognitive deficits which have been present for at least 6 months and which now impair their ability to function as they normally would (professionally, socially, or with respect to activities of daily living)?

Yes ↓ to #2

No ⊙

2. Based on history, physical examination, and blood labs, is evidence present for any of the following correctable conditions: Depression; Substance Abuse; Malnourishment; Medication Effects; Cardiopulmonary Compromise; Anemia; Hypoxemia; Infection; Thyroid Dysfunction; Renal or Hepatic Disorder; Glucose or Electrolyte/Calcium Dysregulation?

Yes ↓ to #3

No ↓ ↓ skip to #4

3. After treatment of the above condition(s), do the deficits still persist?

Yes ↓ to #4

No ⊙

4. Does the patient suffer from Alzheimer's disease, in the judgment of a physician experienced in the diagnosis and assessment of dementia who evaluated this patient, aided by: a) cognitive scales or neuropsychological tests, b) corroborating history from a well-acquainted informed, or c) laboratory tests (including serum B¹² and TSH levels) and structural imaging (MRI or CT)?

Yes - the physician judges the presence of Alzheimer's disease to be certain ⊙

No - the physician judges the absence of Alzheimer's disease to be certain ⊙

Uncertain – the physician judges that it is uncertain whether the patient suffers from Alzheimer's disease ↓ to #5

5. Does the patient exhibit symptoms (e.g., early onset or prominence of social disinhibition, awkwardness, difficulties with language, loss of executive function) such that frontotemporal dementia is suspected as an alternative cause of the patient's cognitive deficits?

Yes ↓ to #6

No ⊙

6. Is it reasonable to expect that information obtained through FDG-PET will help with diagnosis and management of the patient?

Yes ↓ to #7

No ⊙

7. Has the patient previously undergone SPECT or FDG-PET for the same indication?

Yes - the results were conclusive and the patient's condition has not substantially changed ⊙

Yes - but the results were not conclusive and at least a year has elapsed ☺

Yes – but there have been important changes in scope or severity of the patient's cognitive deficits since then ☺

No - the patient has not undergone SPECT or FDG-PET scans ☺

8. **CMS suggests the patient should be referred to a facility accredited to operate Nuclear Medicine equipment and the scan should be read by an expert with experience interpreting PET scans for the evaluation of dementia.**

9. ⊙ **STOP! Not a covered benefit**