

APPENDIX III – Medicare Checklist to Determine FDG-PET Dementia

CHECKLIST TO DETERMINE WHETHER FDG-PET DEMENTIA EVALUATION IS INDICATED AND COVERED BY MEDICARE*

1. Does the patient have diminished memory and other cognitive deficits which have been present for at least 6 months, and which now impair her or his ability to function as (s)he normally would (professionally, socially, or with respect to activities of daily living)?
___ *Yes (continue to #2)* ___ *No PET scan is not covered.*
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 (continue to #3)* ___ *No (continue to #4)*
3. After treatment of the above condition(s), do the deficits still persist?
___ *Yes (continue to #4)* ___ *No PET scan is not indicated.*
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 informant,
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
PET scan is not covered.*
___ *No – the physician judges the absence of Alzheimer's disease to be certain
PET scan is not covered.*
___ *Uncertain—the physician judges that it is uncertain whether the patient suffers from Alzheimer's disease
(continue 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 (continue to #6)* ___ *No PET scan is not covered.*
6. Is it reasonable to expect that information obtained through FDG-PET will help with diagnosis and management of the patient?
___ *Yes (continue to #7)* ___ *No PET scan is not covered.*

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

PET scan is not covered.

☐ Yes – but the results were not conclusive and at least a year has elapsed

(continue to #8)

☐ Yes – but there have been important changes in scope or severity of the patient’s cognitive deficits since then *(continue to #8)*

☐ No *(continue to #8)*

8. **An FDG-PET scan is considered “reasonable and necessary” by CMS.** 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._

To request a color-coded electronic copy of this Checklist, e-mail Dr. Dan Silverman at uclasomdan@yahoo.com.

Etiology of Dementia	Regional Hypometabolism Identified by FDG-PET
Alzheimer's Disease	Parietal, temporal and posterior cingulate cortices affected early; relative sparing of primary sensorimotor and primary visual cortex; sparing of striatum, thalamus, and cerebellum.
Vascular Dementia	Hypometabolic foci affecting cortical, subcortical, and cerebellar areas.
Frontotemporal Dementia	Frontal cortex, anterior temporal and mesiotemporal areas affected earlier and/or with greater initial severity than parietal and lateral posterior temporal cortex; relative sparing of primary sensorimotor, posterior cingulate, and visual cortex.
Huntington's Disease	Caudate and lentiform nuclei affected early, with gradual development of diffuse cortical hypometabolism.
Parkinson's Dementia	Similar to Alzheimer's Disease, but less sparing of visual cortex. In early, untreated Parkinson's disease, basal ganglia may appear hypermetabolic.
Dementia with Lewy Bodies	Similar to Alzheimer's Disease, but less sparing of occipital cortex.