eMeasure Title	Dementia: Cognitive Assessment		
eMeasure Identifier (Measure Authoring Tool)	149	eMeasure Version number	5.2.000
NQF Number	Not Applicable	GUID	7c443b9b-1ad1-4467-b527-defc445701ff
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	PCPI(R) Foundation (PCPI[R])		
Measure Developer	American Medical Association (AMA)		
Measure Developer	PCPI(R) Foundation (PCPI[R])		
Endorsed By	None		
Description	Percentage of patients, regardless of age, with a diagnosis of dementia for whom an assessment of cognition is performed and the results reviewed at least once within a 12 month period		
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Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	Dementia is often characterized by the gradual onset and continuing cognitive decline in one or more domains including memory, executive function, language, judgment, and spatial abilities. (APA, 2007) Cognitive deterioration represents a major source of morbidity and mortality and poses a significant burden on affected individuals and their caregivers. (NIH, 2010) Although cognitive deterioration follows a different course depending on the type of dementia, significant rates of decline have been reported. For example, one study found that the annual rate of decline for Alzheimer's disease patients was more than four times that of older adults with no cognitive impairment. (Wilson et al., 2010) Nevertheless, measurable cognitive abilities remain throughout the course of dementia. (APA, 2007) Initial and ongoing assessments of cognition are fundamental to the proper management of patients with dementia. These assessments serve as the basis for identifying treatment goals, developing a treatment plan, monitoring the effects of treatment, and modifying treatment as appropriate.		
Clinical Recommendation Statement	Ongoing assessment includes periodic monitoring of the development and evolution of cognitive and noncognitive psychiatric symptoms and their response to intervention (Category I). Both cognitive and noncognitive neuropsychiatric and behavioral symptoms of dementia tend to evolve over time, so regular monitoring allows detection of new symptoms and adaptation of treatment strategies to current needs… Cognitive symptoms that		

	almost always require assessment include impairments in memory, executive function, language, judgment, and spatial abilities. It is often helpful to track cognitive status with a structured simple examination. (APA, 2007) Conduct and document an assessment and monitor changes in cognitive status using a reliable and valid instrument. Cognitive status should be reassessed periodically to identify sudden changes, as well as to monitor the potential beneficial or harmful effects of environmental changes, specific medications, or other interventions. Proper assessment requires the use of a standardized, objective instrument that is relatively easy to use, reliable (with less variability between different assessors), and valid (results that would be similar to gold-standard evaluations). (California Workgroup on Guidelines for Alzheimer's Disease Management, 2008)
Improvement Notation	Higher score indicates better quality
Reference	American Psychiatric Association (APA). Practice guideline for the treatment of patients with Alzheimer's disease and other dementias. Arlington (VA): American Psychiatric Association (APA); 2007 Oct.
Reference	California Workgroup on Guidelines for Alzheimer's Disease Management. Guidelines for Alzheimer's disease management. Los Angeles, CA: Alzheimer's Disease and Related Disorders Association, Inc., Los Angeles Chapter. 2008.
Reference	National Institutes of Health (NIH). NIH State-of-the-Science Conference: Preventing Alzheimer's Disease and Cognitive Decline. April 26-28, 2010. http://consensus.nih.gov/2010/docs/alz/alz_stmt.pdf. Accessed June 9, 2010.
Reference	Wilson RS, Aggarwal NT, Barnes LL, Mendes de Leon CF, Hebert LE, Evans DA. Cognitive decline in incident Alzheimer disease in a community population. Neurology. 2010 Mar 23;74(12):951-5.
Definition	Cognition can be assessed by the clinician during the patient's clinical history. Cognition can also be assessed by direct examination of the patient using one of a number of instruments, including several originally developed and validated for screening purposes. This can also include, where appropriate, administration to a knowledgeable informant. Examples include, but are not limited to: -Blessed Orientation-Memory-Concentration Test (BOMC) -Montreal Cognitive Assessment (MoCA) -St. Louis University Mental Status Examination (SLUMS) -Mini-Mental State Examination (MMSE) [Note: The MMSE has not been well validated for non-Alzheimer's dementias] -Short Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) -Ascertain Dementia 8 (AD8) Questionnaire -Minimum Data Set (MDS) Brief Interview of Mental Status (BIMS) [Note: Validated for use with nursing home patients only] -Formal neuropsychological evaluation -Mini-Cog
Guidance	Use of a standardized tool or instrument to assess cognition other than those listed will meet numerator performance. Standardized tools can be mapped to the concept "Intervention, Performed: Cognitive Assessment" included in the numerator logic below. The requirement of "Count >=2 of Encounter, Performed" is to establish that the eligible professional has an existing relationship with the patient.
Transmission Format	TBD
Initial Population	All patients, regardless of age, with a diagnosis of dementia
Denominator	Equals Initial Population
Denominator Exclusions	None
Numerator	Patients for whom an assessment of cognition is performed and the results reviewed at least once within a 12 month period
Numerator Exclusions	Not Applicable
Denominator Exceptions	Documentation of medical reason(s) for not assessing cognition (eg, patient with very advanced stage dementia, receiving palliative care, other medical reason) Documentation of patient reason(s) for not assessing cognition
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex

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Population Criteria

- **Initial Population =**
  - AND: Count>= 2 : Union of:
    - "Encounter, Performed: Psych Visit - Diagnostic Evaluation"
    - "Encounter, Performed: Nursing Facility Visit"
    - "Encounter, Performed: Care Services in Long-Term Residential Facility"
    - "Encounter, Performed: Home Healthcare Services"
    - "Encounter, Performed: Patient Provider Interaction"
    - "Encounter, Performed: Psych Visit - Psychotherapy"
    - "Encounter, Performed: Behavioral/Neuropsych Assessment"
    - "Encounter, Performed: Occupational Therapy Evaluation"
    - "Encounter, Performed: Office Visit"
    - "Encounter, Performed: Outpatient Consultation"
    - during "Measurement Period"
  - AND: "Diagnosis: Dementia & Mental Degenerations" overlaps Occurrence A of $DEMEncounters149
- **Denominator =**
  - AND: Initial Population
- **Denominator Exclusions =**
  - None
- **Numerator =**
  - AND: Union of:
    - "Risk Category Assessment: Standardized Tools for Assessment of Cognition (result)"
    - "Intervention, Performed: Cognitive Assessment"
    - <= 12 month(s) starts before end of Occurrence A of $DEMEncounters149
- **Numerator Exclusions =**
  - None
- **Denominator Exceptions =**
  - OR: Union of:
    - "Diagnosis: Severe Dementia"
    - "Intervention, Performed: Palliative Care"
    - overlaps Occurrence A of $DEMEncounters149
  - OR: Union of:
    - "Risk Category Assessment not done: Medical Reason" for "Standardized Tools for Assessment of Cognition"
    - "Risk Category Assessment not done: Patient Reason" for "Standardized Tools for Assessment of Cognition"
    - "Intervention, Performed not done: Medical Reason" for "Cognitive Assessment"
    - "Intervention, Performed not done: Patient Reason" for "Cognitive Assessment"
    - starts during Occurrence A of $DEMEncounters149
- **Stratification =**
  - None

Data Criteria (QDM Variables)

- **$DEMEncounters149 =**
  - Union of:
    - "Encounter, Performed: Psych Visit - Diagnostic Evaluation"
    - "Encounter, Performed: Nursing Facility Visit"
    - "Encounter, Performed: Care Services in Long-Term Residential Facility"
    - "Encounter, Performed: Home Healthcare Services"
    - "Encounter, Performed: Face-to-Face Interaction"
    - "Encounter, Performed: Psych Visit - Psychotherapy"
    - "Encounter, Performed: Behavioral/Neuropsych Assessment"
    - "Encounter, Performed: Occupational Therapy Evaluation"
    - "Encounter, Performed: Office Visit"
    - "Encounter, Performed: Outpatient Consultation"
    - during "Measurement Period"

Data Criteria (QDM Data Elements)

- "Diagnosis: Dementia & Mental Degenerations" using "Dementia & Mental Degenerations Grouping Value Set (2.16.840.1.113883.3.526.3.1005)"
- "Diagnosis: Severe Dementia" using "Severe Dementia Grouping Value Set (2.16.840.1.113883.3.526.3.1025)"
- "Encounter, Performed: Behavioral/Neuropsych Assessment" using "Behavioral/Neuropsych Assessment Grouping Value Set (2.16.840.1.113883.3.526.3.1023)"
- "Encounter, Performed: Care Services in Long-Term Residential Facility" using "Care Services in Long-Term Residential Facility Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1014)"
- "Encounter, Performed: Face-to-Face Interaction" using "Face-to-Face Interaction Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1048)"
- "Encounter, Performed: Home Healthcare Services" using "Home Healthcare Services Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1016)"
- "Encounter, Performed: Nursing Facility Visit" using "Nursing Facility Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1012)"
- "Encounter, Performed: Occupational Therapy Evaluation" using "Occupational Therapy Evaluation Grouping Value Set (2.16.840.1.113883.3.526.3.1011)"

- "Encounter, Performed: Office Visit" using "Office Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Outpatient Consultation" using "Outpatient Consultation Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1008)"
- "Encounter, Performed: Patient Provider Interaction" using "Patient Provider Interaction Grouping Value Set (2.16.840.1.113883.3.526.3.1012)"
- "Encounter, Performed: Psych Visit - Diagnostic Evaluation" using "Psych Visit - Diagnostic Evaluation Grouping Value Set (2.16.840.1.113883.3.526.3.1492)"
- "Encounter, Performed: Psych Visit - Psychotherapy" using "Psych Visit - Psychotherapy Grouping Value Set (2.16.840.1.113883.3.526.3.1496)"
- "Intervention, Performed: Cognitive Assessment" using "Cognitive Assessment Grouping Value Set (2.16.840.1.113883.3.526.3.1332)"
- "Intervention, Performed: Palliative Care" using "Palliative Care Grouping Value Set (2.16.840.1.113883.3.526.3.1024)"
- "Intervention, Performed not done: Medical Reason" using "Medical Reason Grouping Value Set (2.16.840.1.113883.3.526.3.1007)"
- "Intervention, Performed not done: Patient Reason" using "Patient Reason Grouping Value Set (2.16.840.1.113883.3.526.3.1008)"
- "Risk Category Assessment: Standardized Tools for Assessment of Cognition" using "Standardized Tools for Assessment of Cognition Grouping Value Set (2.16.840.1.113883.3.526.3.1006)"
- "Risk Category Assessment not done: Medical Reason" using "Medical Reason Grouping Value Set (2.16.840.1.113883.3.526.3.1007)"
- "Risk Category Assessment not done: Patient Reason" using "Patient Reason Grouping Value Set (2.16.840.1.113883.3.526.3.1008)"

Supplemental Data Elements

- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity CDCREC Value Set (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer" using "Payer SOP Value Set (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race CDCREC Value Set (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex AdministrativeGender Value Set (2.16.840.1.113762.1.4.1)"

Risk Adjustment Variables

- None

Measure Set	None