

eCQM Title	Dementia: Cognitive Assessment		
eCQM Identifier (Measure Authoring Tool)	149	eCQM Version Number	13.1.000
CBE Number	2872e	GUID	7c443b9b-1ad1-4467-b527-defc445701f
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	American Academy of Neurology		
Measure Developer	American Academy of Neurology		
Measure Developer	American Medical Association (AMA)		
Measure Developer	PCPI(R) Foundation (PCPI[R])		
Endorsed By	CMS Consensus Based Entity		
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	<p>An estimated 5.8 million of adults in the US were living with dementia in 2019. Dementia is often characterized by the gradual onset and continuing cognitive decline in one or more domains including memory, communication and language, ability to focus or pay attention, reasoning and judgment and visual perception (Alzheimer's Association, 2019). Cognitive deterioration represents a major source of morbidity and mortality and poses a significant burden on affected individuals and their caregivers (Kieboom, Snaphaan, & Bongers, 2020; Lancôt et al., 2024). 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 (American Psychiatric Association, 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.</p> <p>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 (American Psychiatric Association, 2007).</p> <p>The American Psychiatric Association recommends that patients with dementia be assessed for the type, frequency, severity, pattern, and timing of symptoms (Category 1C). Quantitative measures provide a structured replicable way to document the patient's baseline symptoms and determine which symptoms (if any) should be the target of intervention based on factors such as frequency of occurrence, magnitude, potential for associated harm to the patient or others, and associated distress to the patient. The exact frequency at which measures are warranted will depend on clinical circumstances. However, use of quantitative measures as treatment proceeds allows more precise tracking of whether nonpharmacological and pharmacological treatments are having their intended effect or whether a shift in the treatment plan is needed (American Psychiatric Association, 2016).</p> <p>Conduct and document an assessment and monitor changes in cognitive status using a reliable and valid instrument, e.g., Montreal Cognitive Assessment (MoCA), Ascertain Dementia 8 (AD8) or other tool. Cognitive status should be reassessed periodically to identify sudden changes, as well as to monitor the potential beneficial or harmful effects of environmental changes (including safety, care needs, and abuse and/or neglect), specific medications (both prescription and non-prescription, for appropriate use and contraindications), 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 Department of Public Health, 2017).</p> <p>Recommendation: Perform regular, comprehensive person-centered assessments and timely interim assessments.</p> <p>Assessments, conducted at least every 6 months, should prioritize issues that help the person with dementia to live fully. These include assessments of the individual and care partner's relationships and subjective experience and assessment of cognition, behavior, and function, using reliable and valid tools. Assessment is ongoing and dynamic, combining nonothetic (norm based) and idiographic (individualized) approaches (Fazio, Pace, Maslow, Zimmerman, & Kallmyer, 2018).</p> <p>Recommendation: Assess cognitive status, functional abilities, behavioral and psychological symptoms of dementia, medical status, living environment, and safety. Reassess regularly and when there is a significant change in condition (U.S. Department of Health and Human Services, 2016).</p>		
Improvement Notation	Higher score indicates better quality		
Reference	Reference Type: CITATION Reference Text: 'Alzheimer's Association. (2019). 2019 Alzheimer's Disease Facts and Figures. Alzheimer's & Dementia, 15(3), 321-387. Retrieved from https://alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf'		
Reference	Reference Type: CITATION Reference Text: 'Work Group on Alzheimer's Disease and other Dementias; Rabins PV, Blacker D, Rovner BW, et al. American Psychiatric Association practice guideline for the treatment of patients with Alzheimer's disease and other dementias. Second edition. Am J Psychiatry 2007; 164(12 Suppl):5-56. Retrieved from https://psychiatryonline.org/ps/asset/raw/sitewide/practice_guidelines/guidelines/alzheimers.pdf'		
Reference	Reference Type: CITATION Reference Text: 'Reus VI, Fochtman LJ, Eyler AE, et al. The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients With Dementia. Am J Psychiatry 2016; 173(5):543-6. Retrieved from https://psychiatryonline.org/doi/pdf/10.1176/appi.books.9780890426807'		
Reference	Reference Type: CITATION Reference Text: 'California Department of Public Health. (2017). California guidelines for Alzheimer's disease management, 2017. Retrieved from https://www.cdph.ca.gov/Programs/CCDCDPH/DCCID/CDCB/CDPH%20Documents%20Library/Alzheimers%20Disease%20Program/ALZ-CareGuidelines.pdf'		
Reference	Reference Type: CITATION Reference Text: 'Fazio, S., Pace, D., Maslow, K., Zimmerman, S., & Kallmyer, B. (2018). Alzheimer's Association Dementia Care Practice Recommendations. The Gerontologist, 58(S1), S1-S9. [Supplemental material]. Retrieved from https://academic.oup.com/gerontologist/article/58/suppl_1/S1/4816759'		
Reference	Reference Type: CITATION Reference Text: 'U.S. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, Office of Disability, Aging and Long-Term Care Policy, Wiener JM, Gould E, Shuman SB, Kaur R, Ignaczak M, Maslow K. Examining Models of Dementia Care: Final Report. (2016) (ASPE Final Report No. 0212704.017.000.001). Retrieved from https://aspe.hhs.gov/system/files/pdf/257216/ExamDCMod.pdf'		
Reference	Reference Type: CITATION Reference Text: 'Wilson, R. S., Aggarwal, N. T., Barnes, L. L., Mendes de Leon, C.F., Herbert, L.E., & Evans, D.A. (2010). Cognitive decline in incident Alzheimer disease in a community population. Neurology, 74(12), 951-955. doi: 10.1212/WNL.0b013e3181d64786'		
Reference	Reference Text: 'Lancôt KL, Hvid Hahn-Pedersen J, Eichinger CS, Freeman C, Clark A, Tarazona LRS, Cummings J. Burden of Illness in People with Alzheimer's Disease: A Systematic Review of Epidemiology, Comorbidities and Mortality. J Prev Alzheimers Dis. 2024;11(1):97-107. doi: 10.14283/jpad.2023.61. PMID: 38230722; PMCID: PMC10225771.'		
Reference	Reference Type: CITATION Reference Text: 'van den Kieboom R, Snaphaan L, Mark R, Bongers I. The Trajectory of Caregiver Burden and Risk Factors in Dementia Progression: A Systematic Review. J Alzheimers Dis. 2020;77(3):1107-1115. doi: 10.3233/JAD-200647. PMID: 32804093; PMCID: PMC7683084.'		
Definition	<p>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:</p> <ul style="list-style-type: none"> -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	<p>The measure requires a diagnosis of dementia is present before the routine assessment of cognition once in a 12-month period.</p> <p>Use of a standardized tool or instrument to assess cognition other than those listed will meet numerator performance if mapped to the concept "Intervention, Performed": "Cognitive Assessment" included in the numerator logic below.</p> <p>The requirement of two or more visits is to establish that the eligible clinician has an existing relationship with the patient.</p> <p>In recognition of the growing use of integrated and team-based care, the diagnosis of dementia and the assessment of cognitive function need not be performed by the same provider or clinician.</p> <p>The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition DMS-5 has replaced the term dementia with major neurocognitive disorder and mild neurocognitive disorder. For the purposes of this measure, the terms are equivalent.</p> <p>This eCQM is a patient-based measure.</p> <p>This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM.</p>		
Transmission Format	TBD		
Initial Population	All patients, regardless of age, with a diagnosis of dementia who have two or more visits during the measurement period		
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 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	exists "Dementia Encounter During Measurement Period" and (Count("Qualifying Encounter During Measurement Period") >= 2)
Denominator	"Initial Population"
Denominator Exclusions	None
Numerator	exists "Assessment of Cognition Using Standardized Tools or Alternate Methods"
Numerator Exclusions	None
Denominator Exceptions	exists "Patient Reason for Not Performing Assessment of Cognition Using Standardized Tools or Alternate Methods"
Stratification	None

Definitions

Assessment of Cognition Using Standardized Tools or Alternate Methods	<p>(["Assessment, Performed": "Standardized Tools Score for Assessment of Cognition"] union ["Intervention, Performed": "Cognitive Assessment"]) CognitiveAssessment with "Dementia Encounter During Measurement Period" EncounterDementia such that Global."NormalizetInterval" (CognitiveAssessment.relevantDatetime, CognitiveAssessment.relevantPeriod) starts 12 months or less on or before day of end of EncounterDementia.relevantPeriod where CognitiveAssessment.result is not null</p>
Dementia Encounter During Measurement Period	<p>"Encounter to Assess Cognition" EncounterAssessCognition with ["Diagnosis": "Dementia and Mental Degenerations"] Dementia such that EncounterAssessCognition.relevantPeriod during day of "Measurement Period" and Dementia.prevalencePeriod overlaps day of EncounterAssessCognition.relevantPeriod</p>
Denominator	"Initial Population"
Denominator Exceptions	exists "Patient Reason for Not Performing Assessment of Cognition Using Standardized Tools or Alternate Methods"
Encounter to Assess Cognition	<p>["Encounter, Performed": "Psych Visit Diagnostic Evaluation"] union ["Encounter, Performed": "Nursing Facility Visit"] union ["Encounter, Performed": "Care Services in Long Term Residential Facility"] union ["Encounter, Performed": "Home Healthcare Services"] union ["Encounter, Performed": "Psych Visit Psychotherapy"] union ["Encounter, Performed": "Behavioral/Neuropsych Assessment"] union ["Encounter, Performed": "Occupational Therapy Evaluation"] union ["Encounter, Performed": "Office Visit"] union ["Encounter, Performed": "Outpatient Consultation"]</p>
Initial Population	exists "Dementia Encounter During Measurement Period" and (Count("Qualifying Encounter During Measurement Period") >= 2)
Numerator	exists "Assessment of Cognition Using Standardized Tools or Alternate Methods"
Patient Reason for Not Performing Assessment of Cognition Using Standardized Tools or Alternate Methods	<p>(["Assessment, Not Performed": "Standardized Tools Score for Assessment of Cognition"] union ["Intervention, Not Performed": "Cognitive Assessment"]) NoCognitiveAssessment such that NoCognitiveAssessment.authorDatetime during EncounterDementia.relevantPeriod where NoCognitiveAssessment.negativeRationale in "Patient Reason"</p>
Qualifying Encounter During Measurement Period	<p>("Encounter to Assess Cognition" union ["Encounter, Performed": "Patient Provider Interaction"]) ValidEncounter where ValidEncounter.relevantPeriod during day of "Measurement Period"</p>
SDE Ethnicity	["Patient Characteristic Ethnicity": "Ethnicity"]
SDE Payer	["Patient Characteristic Payer": "Payer Type"]
SDE Race	["Patient Characteristic Race": "Race"]
SDE Sex	["Patient Characteristic Sex": "ONC Administrative Sex"]

Functions

Global.NormalizetInterval(pointInTime, DateTime, period Interval<Date>Time)	<p>if pointInTime is not null then Interval[pointInTime, pointInTime] else if period is not null then period else null as Interval<Date>Time</p>
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Terminology

- valueset "Behavioral/Neuropsych Assessment" (2.16.840.1.113883.3.526.3.1023)
- valueset "Care Services in Long Term Residential Facility" (2.16.840.1.113883.3.464.1003.101.12.1014)
- valueset "Cognitive Assessment" (2.16.840.1.113883.3.526.3.1005)
- valueset "Dementia and Mental Degenerations" (2.16.840.1.113883.3.526.3.1005)
- valueset "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueset "Home Healthcare Services" (2.16.840.1.113883.3.464.1003.101.12.1016)
- valueset "Nursing Facility Visit" (2.16.840.1.113883.3.464.1003.101.12.1012)
- valueset "Occupational Therapy Evaluation" (2.16.840.1.113883.3.526.3.1011)
- valueset "Office Visit" (2.16.840.1.113883.3.464.1003.101.12.1001)
- valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- valueset "Outpatient Consultation" (2.16.840.1.113883.3.464.1003.101.12.1008)
- valueset "Patient Provider Interaction" (2.16.840.1.113883.3.526.3.1012)
- valueset "Patient Reason" (2.16.840.1.113883.3.526.3.1008)
- valueset "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueset "Psych Visit Diagnostic Evaluation" (2.16.840.1.113883.3.526.3.1492)
- valueset "Psych Visit Psychotherapy" (2.16.840.1.113883.3.526.3.1496)
- valueset "Race" (2.16.840.1.114222.4.11.836)
- valueset "Standardized Tools Score for Assessment of Cognition" (2.16.840.1.113883.3.526.3.1006)

Data Criteria (QDM Data Elements)

- "Assessment, Not Performed: Standardized Tools Score for Assessment of Cognition" using "Standardized Tools Score for Assessment of Cognition (2.16.840.1.113883.3.526.3.1006)"
- "Assessment, Performed: Standardized Tools Score for Assessment of Cognition" using "Standardized Tools Score for Assessment of Cognition (2.16.840.1.113883.3.526.3.1006)"
- "Diagnosis: Dementia and Mental Degenerations" using "Dementia and Mental Degenerations (2.16.840.1.113883.3.526.3.1005)"
- "Encounter, Performed: Behavioral/Neuropsych Assessment" using "Behavioral/Neuropsych Assessment (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 (2.16.840.1.113883.3.464.1003.101.12.1014)"
- "Encounter, Performed: Home Healthcare Services" using "Home Healthcare Services (2.16.840.1.113883.3.464.1003.101.12.1016)"
- "Encounter, Performed: Nursing Facility Visit" using "Nursing Facility Visit (2.16.840.1.113883.3.464.1003.101.12.1012)"
- "Encounter, Performed: Occupational Therapy Evaluation" using "Occupational Therapy Evaluation (2.16.840.1.113883.3.526.3.1011)"
- "Encounter, Performed: Office Visit" using "Office Visit (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Outpatient Consultation" using "Outpatient Consultation (2.16.840.1.113883.3.464.1003.101.12.1008)"
- "Encounter, Performed: Patient Provider Interaction" using "Patient Provider Interaction (2.16.840.1.113883.3.526.3.1012)"
- "Encounter, Performed: Psych Visit Diagnostic Evaluation" using "Psych Visit Diagnostic Evaluation (2.16.840.1.113883.3.526.3.1492)"
- "Encounter, Performed: Psych Visit Psychotherapy" using "Psych Visit Psychotherapy (2.16.840.1.113883.3.526.3.1496)"
- "Intervention, Not Performed: Cognitive Assessment" using "Cognitive Assessment (2.16.840.1.113883.3.526.3.1005)"
- "Intervention, Performed: Cognitive Assessment" using "Cognitive Assessment (2.16.840.1.113883.3.526.3.1005)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer Type" using "Payer Type (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex (2.16.840.1.113762.1.4.1)"

Supplemental Data Elements

SDE Ethnicity	["Patient Characteristic Ethnicity": "Ethnicity"]
SDE Payer	["Patient Characteristic Payer": "Payer Type"]
SDE Race	["Patient Characteristic Race": "Race"]
SDE Sex	["Patient Characteristic Sex": "ONC Administrative Sex"]

Risk Adjustment Variables

None

Measure Set	None
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