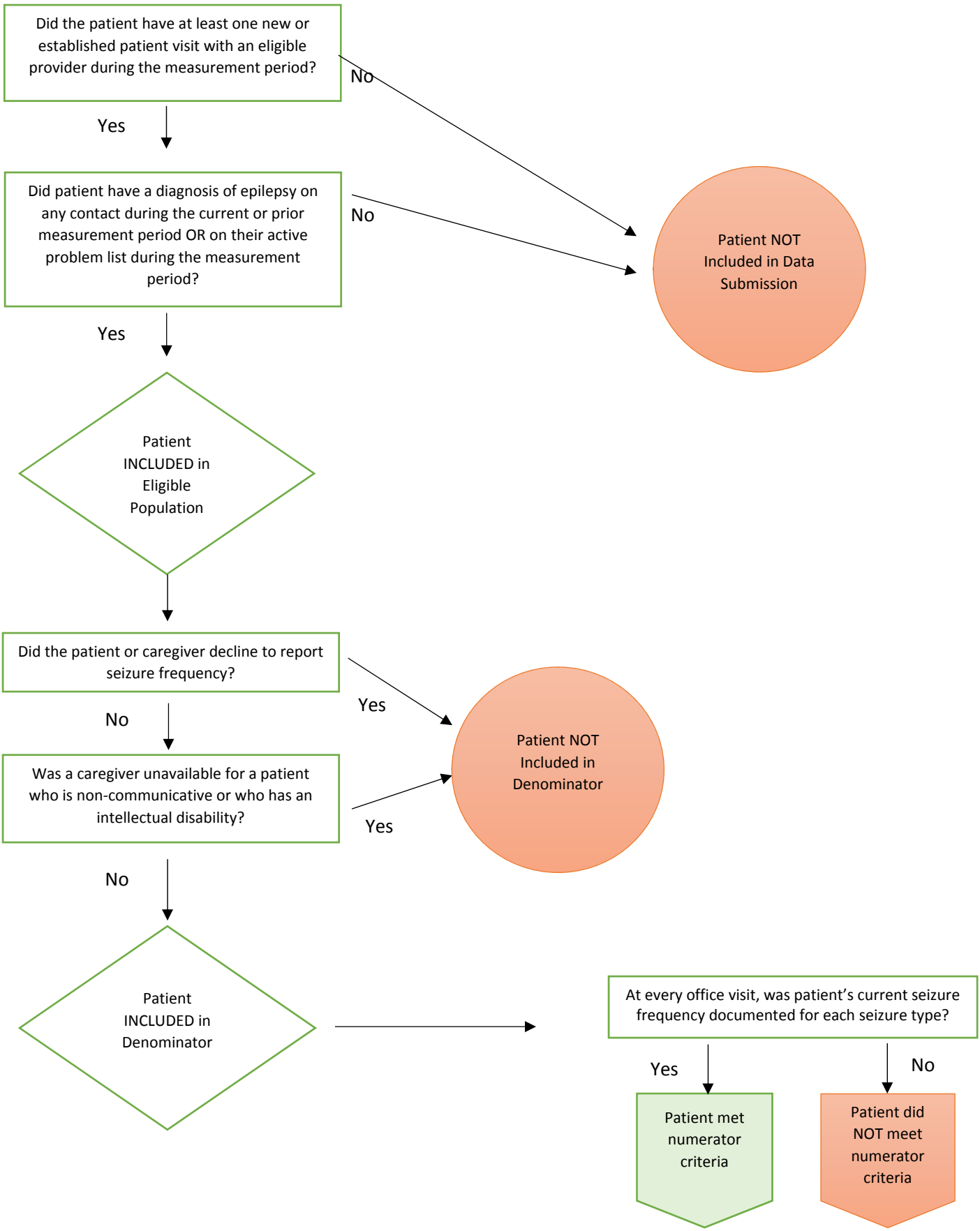
Seizure Frequency for Patients with Epilepsy

Measure Title	Seizure Frequency for Patients with Epilepsy	
Description	Percentage of all visits for patients with a diagnosis of epilepsy where seizure frequency of each seizure type was documented.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	All
	Event	Office Visit
	Diagnosis	Epilepsy
Denominator	All visits for patients with a diagnosis of epilepsy.	
Numerator	Patient visits with current seizure frequency* documented for each seizure type. *Current seizure frequency: A record of the exact number of seizures gathered from patient records, journal, or calendar OR the average or typical recent seizure frequency, often expressed as the average daily, weekly, or monthly seizure frequency since the last visit.	
Required Exclusions	None	
Allowable Exclusions	• Caregiver is unavailable for a patient who is non-communicative or has an intellectual disability. • Patient or caregiver declines to report seizure frequency.	
Exclusion Rationale	For accuracy in reporting a patient or caregiver must be willing to provide data.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Measure Purpose	Quality improvement. This measure will not be submitted to accountability programs for their consideration.	
Level of Measurement	Provider	
Risk Adjustment	Not Applicable	
For Process Measures Relationship to Desired Outcome	The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure: • The seizure type(s) and epilepsy syndrome, aetiology, and co-morbidity should be determined, because failure to classify the epilepsy syndrome correctly can lead to inappropriate treatment and persistence of seizures.(1) • When a patient with epilepsy receives follow-up care, then an estimate of the number of seizures since the last visit and assessment of drug side-effects should be documented. (Level D 1+/ Primary)2 • If a patient is thought to have a diagnosis of epilepsy then the diagnosis should include a best estimation of seizure types. (Level C 2+/Secondary)(2) The main objective in treating epilepsy is to reduce the frequency of seizures and achieve seizure freedom without side effects. In order to determine whether a patient is seizure-free the seizure frequency must be known. Seizure freedom is associated with improvement in health-related quality of life.	

Opportunity to Improve Gap in Care	Provider performance may improve as seizure frequency is not gathered effectively.(3-5) This measure will help assess the gap and inform quality improvement efforts. For example, after implementation of an epilepsy quality measure checklist in an epilepsy clinic without any other intervention, documentation of compliance with this measure increased from 65% to 75%, illustrating that the measure has the intended consequence of increasing compliance.(6)
Harmonization with Existing Measures	There are no known similar measures.
References	1. National Institute of Clinical Health and Excellence. The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care (update). 2012. Clinical guideline 137. Available at: http://www.nice.org.uk/nicemedia/live/13635/57779/57779.pdf Accessed on February 18, 2014. 2. Pugh MJ, Berlowitz DR, Montouris G, et al. What constitutes high quality of care for adults with epilepsy? Neurology 2007;69:2020-2027. 3. Fountain NB, Van Ness PC, Swain-Eng R, et al. Quality improvement in neurology: AAN epilepsy quality measures. Neurology 2011;76:94-99. 4. Wasade VS, Spanaki M, Iyengar R, et al. AAN Epilepsy Quality Measures in clinical practice: a survey of neurologists. Epilepsy Behav. 2012;24(4):468-473. 5. Wicks P, Fountain NB. Patient assessment of physician performance of epilepsy quality-of-care measures. NeurolClinPract 2012;2(4):335-342. 6. Cisneros-Franco JM, Díaz-Torres MA, Rodríguez-Castañeda JB, et al. Impact of the implementation of the AAN epilepsy quality measures on the medical records in a university hospital. BMC Neurology 2013;13:112. Available at: http://www.biomedcentral.com/1471-2377/13/112. Accessed on February 18, 2014.

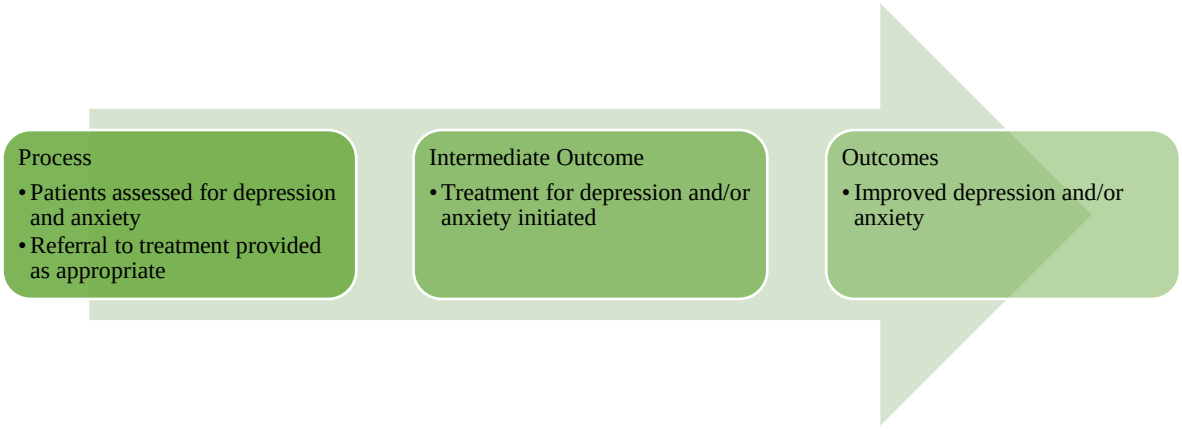
Flow Chart Diagram: Seizure Frequency for Patients with Epilepsy



Code System	Code	Code Description
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
ICD-9	345.00	Generalized nonconvulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.01	Generalized nonconvulsive epilepsy, with intractable epilepsy
ICD-9	345.10	Generalized convulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.11	Generalized convulsive epilepsy, with intractable epilepsy
ICD-9	345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
ICD-9	345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
ICD-9	345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
ICD-9	345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
ICD-9	345.60	Infantile spasms, without mention of intractable epilepsy
ICD-9	345.61	Infantile spasms, with intractable epilepsy
ICD-9	345.70	Epilepsia partialis continua, without mention of intractable epilepsy
ICD-9	345.71	Epilepsia partialis continua, with intractable epilepsy
ICD-9	345.90	Epilepsy, unspecified, without mention of intractable epilepsy
ICD-9	345.91	Epilepsy, unspecified, with intractable epilepsy
ICD-10	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10	G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
ICD-10	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus OR G40.409 Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10	G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10	G40.419	Other generalized
ICD-10	G40.822	Epileptic spasms, not intractable, without status epilepticus
ICD-10	G40.824	Epileptic spasms, intractable, without status epilepticus
ICD-10	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10	G40.919	Epilepsy, unspecified, intractable, without status epilepticus

Depression and Anxiety Screening for Patients with Epilepsy

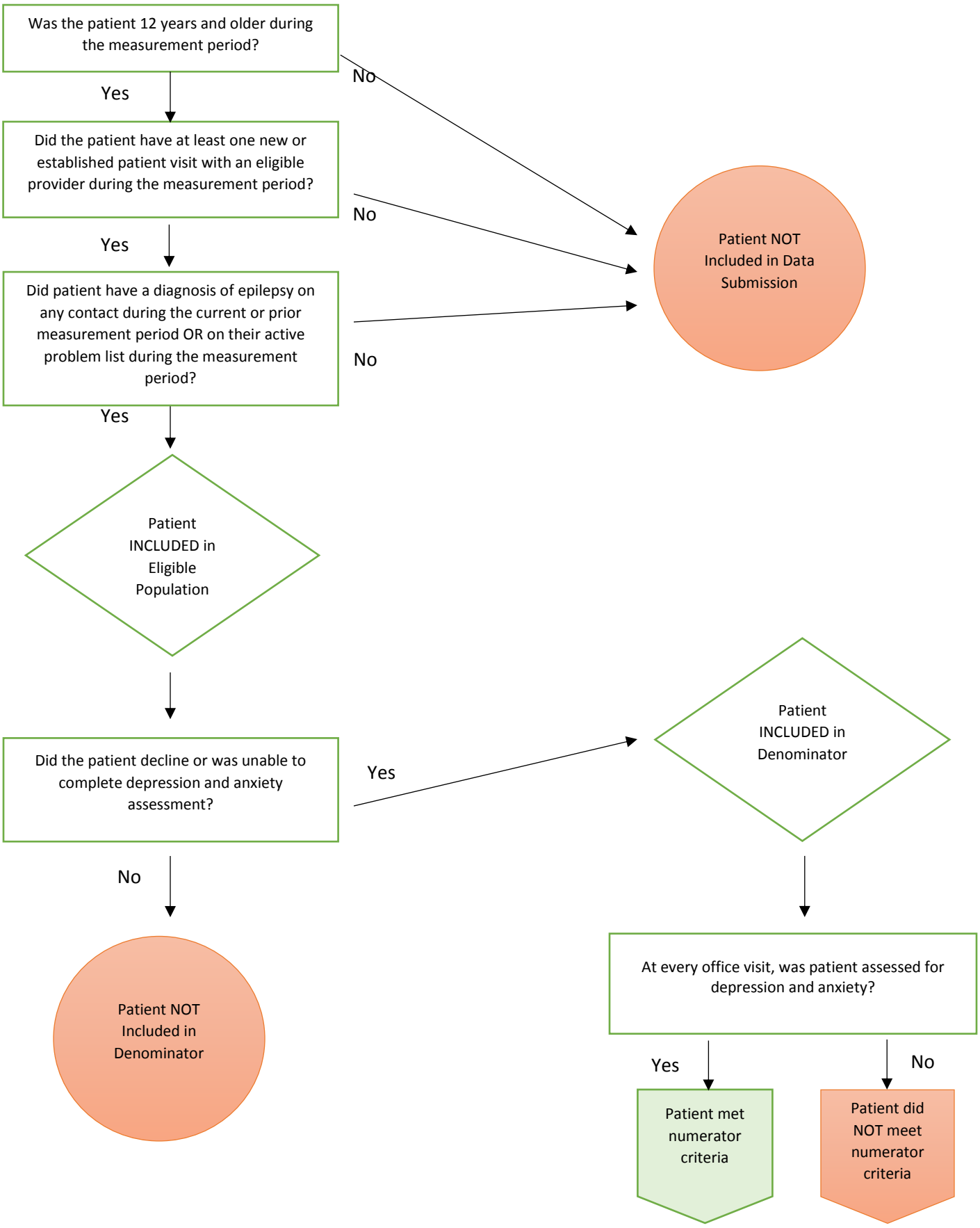
Measure Title	Depression and Anxiety Screening for Patients with Epilepsy	
Description	Percentage of patients with a diagnosis of epilepsy who were screened for depression and anxiety.	
Use	Quality Improvement. Measure will not be submitted for use in accountability programs.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	Age 12 and older
	Event	Office Visit
	Diagnosis	Epilepsy
Denominator	Patients age 12 and older diagnosed with epilepsy	
Numerator	Patients with epilepsy who were screened for both depression* and anxiety^ at every office visit. *Depression Screening is use of the following age appropriate validated tool: • Patient Health Questionnaire 2 Questions (PHQ-2) (1), • Neurological Disorders Depression Inventory for Epilepsy (NDDI-E) (2), • Patient Health Questionnaire 9 Questions (PHQ-9) (3, 4), • Patient Health Questionnaire for Adolescents (PHQ-A) (5), • Beck Depression Inventory (BDI) (6), • BDI II (7), • Strengths and Difficulties Questionnaire (SDQ) (8), • Emotional Thermometer (ET4 and ET7) (9, 10). ^Anxiety Screening is use of the following age appropriate validated tool: • Generalized Anxiety Disorder – 2 Scale (GAD-2) (11) • Generalized Anxiety Disorder – 7 Scale (GAD-7) (11) • Strengths and Difficulties Questionnaire (SDQ) (8), • State-Trait Anxiety Inventory (STAI) (13), • STAI- Short Form (14), • Emotional Thermometer (ET 4 and ET7) (9, 10). **The work group recommends use of the PHQ-2 and GAD-2 for measurement purposes,** but have provided other tools allowing providers to identify the tools that best meet their practice needs. The work group discussed more and less prescriptive ways to select these tools, eventually determining that multiple tools should be offered to allow providers to determine which tool best meets their individual practice needs. In some cases, tools may be subject to copyright and require licensing fees. For location via search term in a registry, the work group encourages providers to document this screening in the following format: "Patient screened with validated depression and anxiety tools". Documentation of validated tool scores will meet measure. (e.g., "Patient screened with NDDI-E score 23 and GAD-7 score 15.")	
Required Exclusions	None	
Allowable Exclusions	Patients who are unable or decline to complete epilepsy specific screening tool. For location via search term in a registry, the work group encourages providers to document this exclusion in the following format: "Patient declines assessment", "Patient unable to complete assessment", or "Patient refuses assessment". Patient has a diagnosis of depression or anxiety on active problem list.	

Exclusion Rationale	Patients need to be willing to complete the screening tool for performance scores to be valid and those with an active depression or anxiety concern recorded on the problem list do not need further screening. Lack of further screening should not signify lack of treatment, as it is assumed once diagnosed treatment would be initiated for the patient.
Measure Scoring	Percentage
Interpretation of Score	Higher Score Indicates Better Quality
Measure Type	Process
Measure Purpose	Quality improvement. This measure will not be submitted to accountability programs for their consideration.
Level of Measurement	Provider
Risk Adjustment	Not Applicable
For Process Measures Relationship to Desired Outcome	People with epilepsy have high rates of psychiatric disorders, with approximately 20% of patients having comorbid depression or anxiety.(11) Such comorbidities result in substantive morbidity and place patients with epilepsy at higher risk for poor quality of life (12, 13), poor adherence to medication (14, 15) and potentially increased risk of suicide.(16) Anti-seizure medications can place patients at risk for mood related changes and suicidality.(17) Symptoms of depression and anxiety can be screened for effectively using a number of different psychometrically validated, reliable screening instruments with validity in the epilepsy population.(2, 13, 18,19) Screening for symptoms of anxiety and depression in patients with epilepsy is imperative to identify high risk patients in need of evaluation and treatment for such comorbidities. Adherence to screening for psychiatric needs has been associated with better seizure control.(20) 
Opportunity to Improve Gap in Care	There is a need to improve the frequency of screening for depression and anxiety in people with epilepsy and ongoing assessment of adherence to such screening. Comorbid depression and anxiety amongst people with epilepsy can often be undiagnosed and therefore untreated. International consensus statement guidelines recommend screening for depression and anxiety disorders as an integral step in identification and diagnosis of such patients with comorbidity, in order to then evaluate and initiate appropriate treatment.(21) Current evidence, however, suggests low adherence (41%) to the recommendation for screening people with epilepsy for psychiatric and behavioral disorders.(20)
Harmonization with Existing Measures	The work group noted multiple measures exist for depression screening in the field (See below), and reviewed these concepts identifying additional need for anxiety screening in this population. The work group developed a measure addressing the anxiety needs as a result. MIPS Measure #134 Preventive Care and Screening: Screening for Clinical Depression and Follow-up Plan

	MIPS Measure #371: Depression Utilization of the PHQ-9 Tool MIPS Measure #370: Depression Remission at Twelve Months MIPS Measure #411: Depression Remission at Six Months
References	1. Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire- 2: validity of a two-item depression screener. Med Care 2003;41:1284–1292. 2. Gilliam FG, Barry JJ, Hermann BP, et al. Rapid detection of major depression in epilepsy: a multicentre study. Lancet Neurol 2006;5:399–405. 3. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med 2001;16:606–613. 4. Rathore JS, Jehi LE, Fan Y, et al. Validation of the Patient Health Questionnaire-9 (PHQ-9) for depression screening in adults with epilepsy. Epilepsy Behav. 2014;37:215-220. 5. Johnson JG, Harris ES, Spitzer RL, Williams JBW: The Patient Health Questionnaire for Adolescents: Validation of an instrument for the assessment of mental disorders among adolescent primary care patients. J Adolescent Health 2002;30:196–204. 6. Beck AT, Ward CH, Mendelson M, et al. An inventory for measuring depression. Arch Gen Psychiatry 1961;4:561–571. 7. Beck AT, Steer RA, Brown GK. BDI-II: Beck Depression Inventory Manual. 2nd ed. San Antonio: Psychological Corporation; 1996. 8. Goodman R. The Strengths and Difficulties Questionnaire: A Research Note. J Child Psychol. Psychiat 1997;38(5):581-586. 9. Rampling J, Mitchell AJ, Von Oertzen T, et al. Screening for depression in epilepsy clinics. A comparison of conventional and visual-analog methods. Epilepsia. 2012; 53(10):1713-1721. 10. Gur-Ozmen S, Leibetseder A, Cock HR, et al. Screening of anxiety and quality of life in people with epilepsy. Seizure. 2017;45:107-113. 11. Kroenke K, Spitzer RL, Williams JBW, et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. Ann Intern Med 2007, 146: 317–325. 12. Spielberger CD, Gorsuch RL, Lushene RE. Manual for the state-trait anxiety inventory. Consulting Psychological Press, Palo Alto; 1970. 13. Marteau T, Bekker H. The development of a six-item short-form of the state scale of the Spielberger State-Trait Anxiety Inventory (STAI) British Journal of Psychology. 1992;31(3):301–306. 14. Pham T, Sauro KM, Patten SB, et al. The prevalence of anxiety and associated factors in persons with epilepsy. Epilepsia 2017 Jun 9. [epub ahead of print] doi: 10.1111/epi.13817. 15. Baca CB, Vickrey BG, Caplan R, et al. Psychiatric and Medical Comorbidity and Quality of Life Outcomes in Childhood-Onset Epilepsy. Pediatrics. 2011;128(6):e1531-1543. 16. Gur-Ozmen S, Leibetseder A, Cock HR, et al. Screening of anxiety and quality of life in people with epilepsy. Seizure 2017;45:107-113. 17. DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment: meta-analysis of the effects of anxiety and depression on patient adherence. Arch Intern Med. 2000;160(4):2101-2107. 18. Guo Y, Ding XY, Lu RY, et al. Depression and anxiety are associated with reduced antiepileptic drug adherence in Chinese patients. Epilepsy Behav. 2015;50:91-95. 19. Mula M. Depression in epilepsy. Curr Opin Neurol. 2017; 30(2):180-186. 20. Mula M, Kanner AM, Schmitz B, et al. Antiepileptic drugs and suicidality: an expert consensus statement from the Task Force on Therapeutic Strategies of the ILAE Commission on Neuropsychobiology. Epilepsia 2013; 54(1):199-203. 21. Gill SJ, Lukmanji S, Fiest KM, et al. Depression screening tools in persons with epilepsy: A systematic review of validated tools. Epilepsia 2017;58(5):695-705. 22. Micoulaud-Franchi JA, Bartolomei F, McGonigal A. Ultra-short screening instruments for major depressive episode and generalized anxiety disorder in epilepsy: The NDDIE-2 and the GAD-SI. J Affect Disord. 2017;210:237-240.

	23. Moura LM, Mendez DY, Jesus JD, et al. Association of adherence to epilepsy quality standards with seizure control. Epilepsy Res 2015; 117:35-41. 24. Kerr MP, Mensah S, Besag F, et al. International consensus clinical practice statements for the treatment of neuropsychiatric conditions associated with epilepsy. Epilepsia 2011; 52(11):2133-2138.

Flow Chart Diagram: Depression and Anxiety Screening for Patients with Epilepsy



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ICD-9	345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
ICD-9	345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
ICD-9	345.70	Epilepsia partialis continua, without mention of intractable epilepsy
ICD-9	345.71	Epilepsia partialis continua, with intractable epilepsy
ICD-9	345.90	Epilepsy, unspecified, without mention of intractable epilepsy
ICD-9	345.91	Epilepsy, unspecified, with intractable epilepsy
ICD-10	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
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ICD-10	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus OR G40.409 Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
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ICD-10	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10	G40.919	Epilepsy, unspecified, intractable, without status epilepticus

Psychiatric Symptoms Assessment for Patients with Parkinson's Disease

Measure Description	
Percentage of all patients with a diagnosis of PD who were assessed* for psychiatric symptoms** in the past 12 months.	
Measure Components	
Numerator Statement	Patients with a diagnosis of PD who were assessed* for psychiatric symptoms** in the past 12 months. *Assessed is a verbal discussion. Please see "Opportunity for Improvement" section below for suggestions on possible screening tools. **Psychiatric symptoms defined as: psychosis (i.e., hallucinations and delusions), depression, anxiety disorder, apathy, AND Impulse Control Disorder (i.e., gambling, hypersexual activity, binge eating, increased spending)
Denominator Statement	All patients with a diagnosis of PD.
Denominator Exceptions	None
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • Clinicians should be aware of dopamine dysregulation syndrome, an uncommon disorder in which dopaminergic medication misuse is associated with abnormal behaviors, including hypersexuality, pathological gambling and stereotypic motor acts. This syndrome may be difficult to manage. (Level D) (1) • Clinicians should have a low threshold for diagnosing depression in PD. (Level D) (1) • All people with PD and psychosis should receive a general medical evaluation and treatment for any precipitating condition. (Level D) (1) • Patients should be warned about the potential for dopamine agonists to cause impulse control disorders and excessive daytime somnolence and be informed of the implications for driving/operating machinery. (Level A) (2) • Self-rating or clinician-rated scales may be used to screen for depression in patients with Parkinson's disease. (Level C) (2)
Measure Importance	
Relationship to Desired Outcome	Psychiatric symptoms are often under diagnosed and under treated. Using appropriate measures will assure that psychiatric symptoms are properly diagnosed and treated so as to not interfere with functioning levels.
Opportunity for Improvement	Major depressive disorder occurs to some degree in 40%– 50% of patients with Parkinson's disease.(3) Psychotic symptoms are noted to affect up to 50% of patients with PD.(4) Anxiety syndromes are estimated to affect up

	to 30% of patients with PD.(5) Impulse control disorders including pathological gambling, compulsive shopping, compulsive sexual behaviors, and binge eating occur in approximately 13.6% of patients with PD.(6) In a 2013 study by Baek et al. reviewing compliance with quality measure recommendations, it was noted that provider compliance rate for annual review of psychiatric disorders (psychosis, depression, etc.) was 36.9%.(7) This measure was adopted into the PQRS reporting system as measure #290 in 2012. Eligible provider compliance rates for 2012 are not available. The following screening tools may be helpful for use in practice: For depression (8): Geriatric Depression scale Beck Depression Hamilton Depression scale For Anxiety (5): Beck Anxiety Inventory Hospital Anxiety and Depression Scale Self-rating Anxiety Scale Anxiety Status Inventory Strait Trait Anxiety Inventory Hamilton Anxiety Rating Scale For Psychosis (4): Parkinson psychosis rating scale Rush hallucination inventory Baylor hallucination questionnaire Neuropsychiatric inventory (NPI or NPI-Q) Brief psychiatric rating scale Positive and negative syndrome scale Schedule for assessment of positive symptoms Unified Parkinson disease rating scale Part I For Impulse Control Disorder (9): Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease-Rating Scale (QUIP-RS) Minnesota Impulsive Disorders Interview
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐ Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not Applicable
Harmonization with Existing Measures	Several NQF endorsed measures exist that address depression and treatment adherence. These measures include Antidepressant Medication Management, Adult Major Depressive Disorder: Suicide Risk Assessment,

	and Depression Response at Six and Twelve Months (NQF #1884 & 1885), Depression Utilization of the PHQ-9 Tool (NQF #0712), and Depression Remission at Six and Twelve Months (NQF #0710 & 711). The work group recommended continued use of this measure given the unique needs of the population. Individuals with PD may experience a variety of psychiatric symptoms all of which should be assessed. Further, the work group did not want to limit data collection to the PHQ-9 utilized in NQF endorsed measures.
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒Process ☐ Outcome ☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System
Care Setting (Check all that apply)	☒ Outpatient ☒ Inpatient ☒ Skilled Nursing Home ☐ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

References

1. National Institute for Health and Clinical Excellence (NICE) Parkinson's disease: Diagnosis and management in primary and secondary care. NICE clinical guideline 35. June 2006.
2. Scottish Intercollegiate Guidelines Network (SIGN). Diagnosis and pharmacological management of Parkinson's disease. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2010 Jan. 61 p. (SIGN publication; no. 113).
3. American Psychiatric Association (APA). Practice guideline for the treatment of patients with major depressive disorder. 3rd ed. Arlington (VA): American Psychiatric Association (APA); 2010 Oct. 152p.
4. Fernandez HH, Aarsland D, Fenelon G, et al. Task Force Report. Scales to Assess Psychosis in Parkinson's Disease: Critique and Recommendations. Movement Disorders. 2008:23(4):484-500.
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6. Voon V, Sohr M, Lang AE, et al. Impulse Control Disorders in Parkinson Disease: A Multicenter Case-Control Study. Ann Neurol 2011;69:986-996.
7. Baek WS, Swenseid SS, Poon KT. Quality Care Assessment of Parkinson's Disease at a Tertiary Medical Center. International Journal of Neuroscience 2013; 123(4): 221-225.
8. Thompson AW, Liu H, Hays RD, et al. Diagnostic accuracy and agreement across three depression assessment measures for Parkinson's disease. Parkinsonism Relat Disord. 2011:17(1):40-45.

9. Weintraub D, Mamikonyan E, Papay K, et al. Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease-Rating Scale. Mov Disord. 2012;27(2):242-247.

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the PD measures will be made available at a later date.

Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.

Denominator (Eligible Population)	ICD-9 Code	ICD-10 Code
	332.0 (Paralysis agitans)	G20 Parkinson's Disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease
	AND	
	CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient); 99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient); 99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 99304, 99305, 99306, 99307, 99308, 99309, 99310 (Nursing Home Consultation) 99221-99223 (Initial Hospital Care); 99231-99233 (Subsequent Hospital Care); 99238-99239 (Hospital Discharge); 99251-99255 (Initial Inpatient Consultation).	

Quality ID #290: Parkinson's Disease: Psychiatric Symptoms Assessment for Patients with Parkinson's Disease
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention, Treatment, and Management of Mental Health

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of all patients with a diagnosis of Parkinson's Disease [PD] who were assessed for psychiatric symptoms in the past 12 months

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for patients with a diagnosis of Parkinson's Disease seen during the performance period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients with a diagnosis of Parkinson's Disease

Denominator Criteria (Eligible Cases):
All patients regardless of age
AND
Diagnosis for Parkinson's disease (ICD-10-CM): G20
AND
Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213,99214, 99215, 99221, 99222, 99223, 99231, 99232, 99233, 99238, 99239, 99251, 99252, 99253, 99254, 99255, 99304, 99305, 99306, 99307, 99308, 99309, 99310
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR:
Patients with a diagnosis of PD who were assessed for psychiatric symptoms in the past 12 months

Definitions:
Assessed – Is a verbal discussion. Please see "Opportunity for Improvement" section below for suggestions on possible screening tools.

Psychiatric Symptoms – Defined as: psychosis (i.e., hallucinations and delusions), depression, anxiety disorder, apathy, AND Impulse Control Disorder (i.e., gambling, hypersexual activity, binge eating, increased spending).

Numerator Instructions:
Opportunity for Improvement

The following screening tools may be helpful for use in practice:
For depression (8):
Geriatric Depression scale
Beck Depression
Hamilton Depression scale
For Anxiety (5):
Beck Anxiety Inventory
Hospital Anxiety and Depression Scale
Self-rating Anxiety Scale
Anxiety Status Inventory
Strait Trait Anxiety Inventory
Hamilton Anxiety Rating Scale
For Psychosis (4):
Parkinson psychosis rating scale
Rush hallucination inventory
Baylor hallucination questionnaire
Neuropsychiatric inventory (NPI or NPI-Q)
Brief psychiatric rating scale
Positive and negative syndrome scale
Schedule for assessment of positive symptoms
Unified Parkinson disease rating scale Part I
For Impulse Control Disorder (9):
Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease-Rating Scale (QUIP-RS)
Minnesota Impulsive Disorders Interview

NUMERATOR NOTE: *The 12 month look back period is defined as 12 months from the date of the denominator eligible encounter.*

Numerator Options:

Performance Met:	Psychiatric symptoms assessed **(G9742)**
OR	
Performance Not Met:	Psychiatric symptoms not assessed, reason not otherwise specified **(G9743)**

RATIONALE:

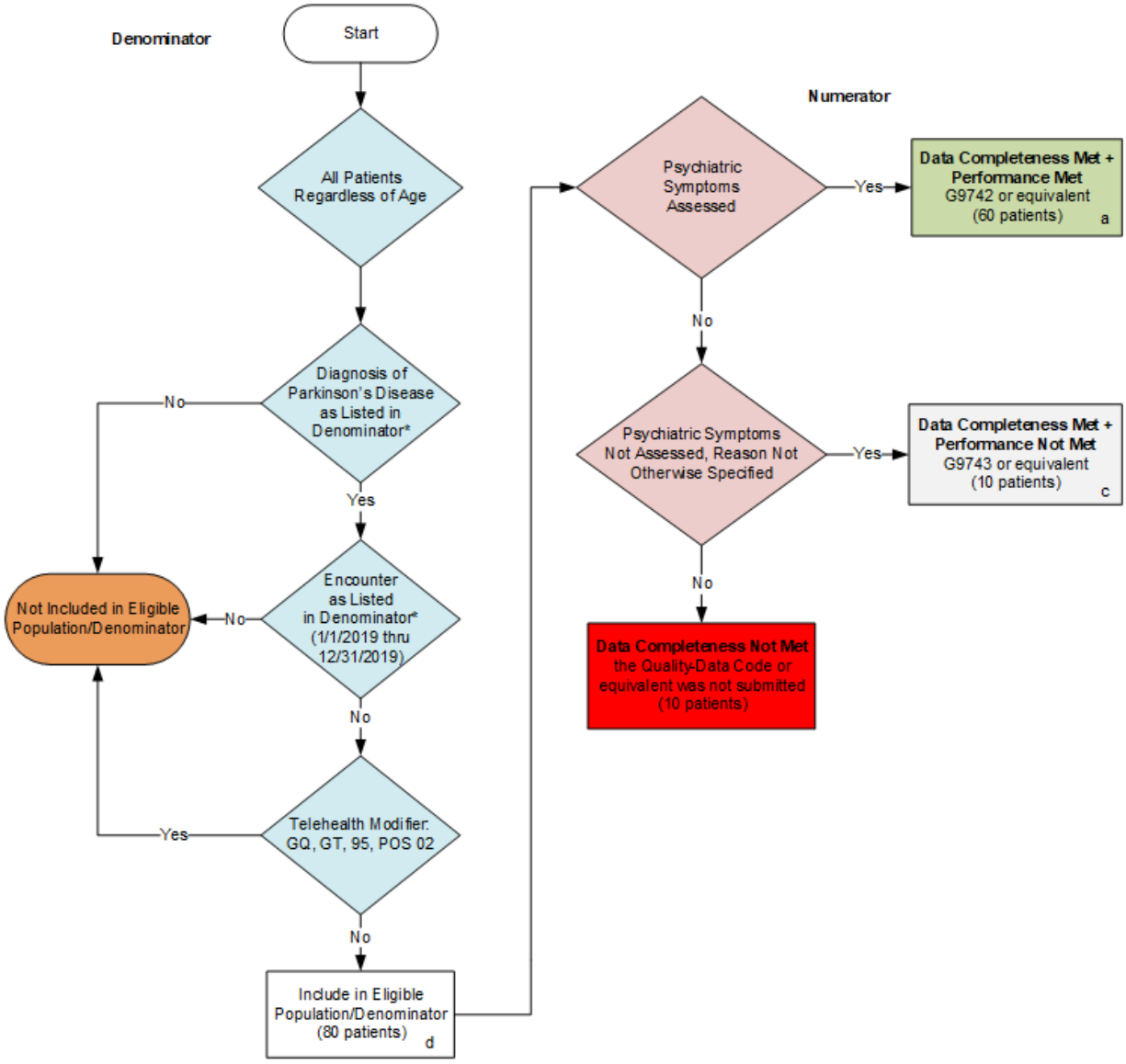
Psychiatric symptoms are often under diagnosed and under treated. Using appropriate measures will assure that psychiatric symptoms are properly diagnosed and treated so as to not interfere with functioning levels.

CLINICAL RECOMMENDATION STATEMENTS:

- Clinicians should be aware of dopamine dysregulation syndrome, an uncommon disorder in which dopaminergic medication misuse is associated with abnormal behaviors, including hypersexuality, pathological gambling and stereotypic motor acts. This syndrome may be difficult to manage. (Level D) (1)
- Clinicians should have a low threshold for diagnosing depression in PD. (Level D) (1)
- All people with PD and psychosis should receive a general medical evaluation and treatment for any precipitating condition. (Level D) (1)

- Patients should be warned about the potential for dopamine agonists to cause impulse control disorders and excessive daytime somnolence and be informed of the implications for driving/operating machinery. (Level A) (2)
- Self-rating or clinician-rated scales may be used to screen for depression in patients with Parkinson's disease. (Level C) (2)

2019 Clinical Quality Measure Flow for Quality ID #290:
Parkinson's Disease: Psychiatric Symptoms Assessment for Patients with Parkinson's Disease



SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=60 patients) + Performance Not Met (c=10 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=60 patients) = 60 patients = **85.71%**
Data Completeness Numerator (70 patients) = 70 patients

* See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE : Submission Frequency: Patient-process

v3

2019 Clinical Quality Measure Flow Narrative for Quality ID #290: Parkinson's Disease: Psychiatric Symptoms Assessment for Patients with Parkinson's Disease

Please refer to the specific section of the Specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. All Patients Regardless of Age
3. Check Patient Diagnosis:
    a. If Diagnosis of Parkinson's Disease as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Parkinson's Disease as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
5. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Telehealth Modifier equals No, include in Eligible Population.
6. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check Psychiatric Symptoms Assessed:
    a. If Psychiatric Symptoms Assessed equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 60 patients in the Sample Calculation.
    c. If Psychiatric Symptoms Assessed equals No, proceed to check Psychiatric Symptoms Not Assessed, Reason Not Otherwise Specified.
9. Check Psychiatric Symptoms Not Assessed, Reason Not Otherwise Specified:
    a. If Psychiatric Symptoms Not Assessed, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 10 patients in the Sample Calculation.

c. If Psychiatric Symptoms Not Assessed, Reason Not Otherwise Specified equals No, proceed to check Data Completeness Not Met.

10. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=60 patients) + Performance Not Met (c=10 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=60 patients) = 60 patients = **85.71%**
Data Completeness Numerator (70 patients) = 70 patients

Querying About Sleep Disturbances for Patients with Parkinson's Disease

Measure Description	
Percentage of all patients with a diagnosis of PD (or caregivers, as appropriate) who were queried about sleep disturbances* in the past 12 months.	
Measure Components	
Numerator Statement	Patients with a diagnosis of PD (or caregivers, as appropriate) who were queried about sleep disturbances* in the past 12 months. *Sleep disturbances are defined as excessive daytime sleepiness, insomnia/fragmentation (including nocturnal motor features), dream enactment/REM Sleep behavior symptoms, Restless Leg Syndrome, or sleep disorder breathing (obstructive sleep apnea).
Denominator Statement	All patients with a diagnosis of PD.
Denominator Exceptions	None
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • A full sleep history should be taken from people with PD who report sleep disturbance (Level D) (1) • Good sleep hygiene should be advised in people with PD with any sleep disturbance and includes: o avoidance of stimulants (for example, coffee, tea, caffeine) in the evening; establishment of a regular pattern of sleep; comfortable bedding and temperature; provision of assistive devices, such as a bed lever or rails to aid with moving and turning, allowing the person to get more comfortable; restriction of daytime siestas; advice about taking regular and appropriate exercise to induce better sleep; a review of all medication and avoidance of any drugs that may affect sleep or alertness, or may interact with other medication (for example, selegiline, antihistamines, H2 antagonists, antipsychotics and sedatives) (1) • The majority of patients with synucleinopathies experience one or more sleep disorders. It is recommended to perform a detailed medical history…and SDB PSG recording, preferably with audiovisual recording…(Level B).(2) • Patients with neurological diseases often have significant sleep disorders that affect sleep and daytime function, with increased morbidity and even mortality. Many of these disorders are treatable. Therefore, increased awareness should be directed toward sleep disorders in patients with neurodegenerative, cerebrovascular, and neuromuscular diseases. Despite this, there are limited number of studies with a high evidence level.(2)

	• An assessment of neuropsychological functioning in a person presenting with parkinsonism suspected of being PD is recommended (Level A) and should include: (I) A collateral history from a reliable carer (II) A brief assessment of cognition (III) Screening for a rapid eye movement (REM) sleep behavior disorder (RBD), psychotic manifestations and severe depression.(3)
Measure Importance	
Relationship to Desired Outcome	Sleep disorders are quite common in PD and impact on Quality of Life.(4) Screening for sleep disturbances increases recognition, enhance likelihood that treatment options will be discussed and offered, and ultimately decrease rates of sleep disturbance in this patient population.
Opportunity for Improvement	Approximately 2/3 of all patients with PD report a sleep disorder.(5) A guideline addressing nonmotor symptoms of PD, released in 2010, addresses sleep disorders with recommendations on effective treatments for excessive daytime somnolence in PD.(6) In a 2013 study by Baek et al. reviewing compliance with quality measure recommendations, it was noted provider compliance rate for annual review of sleep disturbance was 29.6%.(7) This measure was adopted into the PQRS reporting system as measure #292 in 2012. Eligible provider compliance rates for 2012 are not yet available.
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not Applicable
Harmonization with Existing Measures	Not Applicable
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒Process ☐ Outcome ☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System

Care Setting (Check all that apply)	☒ Outpatient ☒ Inpatient ☒ Skilled Nursing Home ☐ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

References

1. NICE National Collaborating Centre for Primary Care. National Collaborating Centre for Chronic Conditions. Parkinson's Disease: National Clinical Guideline for Management in Primary and Secondary Care (2006) London: Royal College of Physicians
2. Jennum P, Cano S, Bassetti C, et al. Sleep disorders in neurodegenerative disorders and stroke. EFNS 2011.
3. Berardelli A, Wenning GK, Antonini A, et al. EFNS/MDS-ES recommendations for the diagnosis of Parkinson's disease. Eur J Neurol. 2013;20(1)16-34.
4. Neikrug AB, Maglione JE, Liu L, et al. Effects of Sleep Disorders on the Non-Motor Symptoms of Parkinson Disease. Journal of Clinical Sleep Medicine 2013; 9(11):1119-1129.
5. Sung VW, Nicholas AP. Nonmotor Symptoms in Parkinson's Disease: Expanding the View of Parkinson's Disease Beyond a Pure Motor, Pure Dopaminergic Problem. Neurol Clin 2013;31:S1-S16.
6. Zesiewicz TA, Sullivan KL, Arnulf I, et al. Quality Standards Subcommittee. Practice Parameter: treatment of nonmotor symptoms of Parkinson disease: report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2010;74(11):924-931.
7. Baek WS, Swenseid SS, Poon KT. Quality Care Assessment of Parkinson's Disease at a Tertiary Medical Center. International Journal of Neuroscience 2013; 123(4): 221-225.

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the PD measures will be made available at a later date.

Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.

Denominator (Eligible Population)

ICD-9 Code	ICD-10 Code
332.0 (Paralysis agitans)	G20 Parkinson's Disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease

AND

CPT E/M Service Code:
99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient);
99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient);

	99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 99304, 99305, 99306, 99307, 99308, 99309, 99310 (Nursing Home Consultation); 99221-99223 (Initial Hospital Care); 99231-99233 (Subsequent Hospital Care); 99238-99239 (Hospital Discharge); 99251-99255 (Initial Inpatient Consultation).

The Parkinson's disease (PD) measurement set was updated in 2015. The specification for the querying about symptoms of autonomic dysfunction for patients with PD measure was modified in January 2018 for implementation in the Axon Registry®. The modification was made to reflect the CMS' requirement a follow-up action occur after a score was recorded. Changes were made solely for registry implementation.

Measure Title	Querying and Follow-up About Symptoms of Autonomic Dysfunction for Patients with Parkinson's Disease	
Description	Percentage of all patients with a diagnosis of PD (or caregivers, as appropriate) who were queried about symptoms of autonomic dysfunction* in the past 12 months and if autonomic dysfunction identified, patient had appropriate follow-up.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Inpatient, ED or Urgent Care, Residential (SNF, home care)
	Ages	All ages
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to an inpatient or residential facility, seen for consultation in the ED or urgent care.
	Diagnosis	Parkinson's Disease
Denominator	All patients with a diagnosis of Parkinson's Disease	
Numerator	Patients with a diagnosis of PD (or caregivers, as appropriate) who were queried about symptoms of autonomic dysfunction* in the past 12 months and if autonomic dysfunction identified, patient had appropriate follow-up**. *Autonomic dysfunction is defined as: orthostatic hypotension or intolerance, constipation, urinary urgency, incontinence, and nocturia, fecal incontinence, urinary retention requiring catheterization, delayed gastric emptying, dysphagia, drooling, hyperhidrosis, or sexual dysfunction. **Follow-up actions will be identified in the Axon Registry via use of the following key search phrases: "treatment plan modified" or "appropriate treatment plan". Additional key phrases for symptom specific needs are below: • orthostatic hypertension – "stop antihypertensives", "add midodrine or droxidopa", or "home monitoring"; • constipation – "recommended/use PEG 3350, senokot, or Dulcolax"; • urinary urgency or incontinence – "recommended/use oxybutynin", "refer to incontinence clinic", "have urodynamics", or "add mirabegron"; • urinary retention – "catheterization inserted/placed"; • dysphagia – "may require speech language pathologist"; • drooling – "botulinum toxin injection" or "atropine drops"; • sexual dysfunction – "referral to PCP"	
Required Exclusions	None	
Allowable Exclusions	None	
Exclusion Rationale	Not Applicable	
Measure Scoring	Percentage/Proportion	

Interpretation of Score	Higher Score Indicates Better Quality
Measure Type	Process
Level of Measurement	Individual provider, Practice, System
Risk Adjustment	Not Applicable
For Process Measures Relationship to Desired Outcome	Autonomic dysfunction is directly related to the quality of life of patients with PD. The desired outcome is to address and eliminate autonomic dysfunction in patients with PD. This measure will provide an incentive for providers to identify autonomic dysfunction and offer available treatments to improve quality of life.
Opportunity to Improve Gap in Care	Autonomic dysfunction was found to be the most prevalent non-motor symptom of PD, affecting more than 70% of patients in all stages of PD (3). Non-motor challenges may become the chief therapeutic challenge in advanced stages of PD, and many may not have effective treatment options (4). In a two-year study development of symptoms in the cardiovascular, apathy, urinary, psychiatric, and fatigue domains was associated with significant life-quality worsening (5). In a 2013 study by Baek et al. reviewing compliance with quality measure recommendations, it was noted provider compliance rate for annual review of autonomic dysfunction was 22.8% (6).
Harmonization with Existing Measures	The work group recommended continued use of this measure given the specific assessment needs of the population. A general functional outcomes measure exists, but does not address disease staging. PQRS Measure #182 assess Functional Outcomes. Individuals aged 18 years and older with documentation of a current functional outcome assessment using a standardized functional outcome assessment tool on the date of the encounter and documentation of a care plan based on identified functional outcome deficiencies on the date of the identified deficiencies.
References	1. Suchowersky O, Reich S, Perlmutter J, et al. Quality Standards Subcommittee of the American Academy of Neurology. Practice Parameter: diagnosis and prognosis of new onset Parkinson disease (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006; 66(7):968-975. 2. NICE National Collaborating Centre for Primary Care. National Collaborating Centre for Chronic Conditions. Parkinson's Disease: National Clinical Guideline for Management in Primary and Secondary Care (2006) London: Royal College of Physicans. 3. Sung VW, Nicholas AP. Nonmotor Symptoms in Parkinson's Disease: Expanding the View of Parkinson's Disease Beyond a Pure Motor, Pure Dopaminergic Problem. Neurol Clin 2013; 31:S1-S16. 4. Seppi K, Weintraub D, Coelho M, et al. The Movement Disorder Society Evidence-Based Medicine Review Update: Treatments for the Non-Motor Symptoms of Parkinson's Disease. Mov Disord 2011; 26(3):S42-S80. 5. Antonini A, Barone P, Marconi R, et al. The progression of non-motor symptoms in Parkinson's disease and their contribution to moto disability and quality of life. J Neurol 2012; 259:2621-2631. 6. Baek WS, Swenseid SS, Poon KT. Quality Care Assessment of Parkinson's Disease at a Tertiary Medical Center. International Journal of Neuroscience 2013; 123(4):221-225.

Code System	Code	Code Description
ICD-9	332.0	Paralysis Agitans

ICD-10	G20	Parkinson's disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonisms or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease
CPT	99201-99205	Office or other outpatient visit, New Patient
CPT	99211-99215	Office or other outpatient visit, Established Patient
CPT	99241-99245	Office or other outpatient consultation, New or Established Patient
CPT	99304-99310	Nursing Home Consultation
CPT	99221-99223	Initial Hospital Care
CPT	99231-99233	Subsequent Hospital Care
CPT	99238-99239	Hospital Discharge
CPT	99251-99255	Initial Inpatient Consultation

This measure has been modified to reflect the CMS' requirement for a follow-up action to occur after a screening. No other changes were made to the measure, and changes were made solely for registry implementation.

Measure Title	Falls screening (aggregation of AAN disease specific falls measures)	
Description	Percentage of patients with Parkinson's disease, multiple sclerosis, distal symmetric polyneuropathy, ALS, epilepsy, dementia who were screened for falls at least annually and counseling provided on falls prevention for those with 2 or more falls or 1 fall with injury.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Inpatient, ED or Urgent Care, Residential (SNF, home care)
	Ages	All patients
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to an inpatient or residential facility, seen for consultation in the ED or urgent care.
	Diagnosis	Parkinson's disease, multiple sclerosis, distal symmetric polyneuropathy (DSP), ALS, epilepsy, dementia.
Denominator	Patients with a current diagnosis of Parkinson's disease, or multiple sclerosis, or distal symmetric polyneuropathy, or ALS, or epilepsy, or dementia.	
Numerator	Patients who are screened for falls at least annually and counseling provided for those with 2 or more falls or 1 fall with injury.	
Required Exclusions	None	
Allowable Exclusions	• Documentation of medical reason for not screening a patient (or caregiver) about falls (e.g., patient is unable to respond, and no informant is available, patient is cognitively impaired and unable to communicate, patient is non-ambulatory). • Documentation of a patient reason for not screening the patient for falls (e.g. patient declines to answer the query about falls).	
Exclusion Rationale	Patients and/or their caregivers need to be willing and able to respond. A patient has the right to refuse to answer questions.	
Measure Scoring	Proportion/Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Individual provider, Practice, System	
Risk Adjustment	Not Applicable	

Code System	Code	Code Description
Parkinson's Disease		
ICD-9	332.0	Paralysis Agitans
ICD-10	G20	Parkinson's disease
DSP		

ICD-9	250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled
ICD-9	250.61	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled
ICD-9	250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled
ICD-9	250.63	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled
ICD-9	356.4	Idiopathic progressive polyneuropathy
ICD-9	356.9	Unspecified hereditary and idiopathic peripheral neuropathy
ICD-9	357.1	Polyneuropathy in collagen vascular disease
ICD-9	357.2	Polyneuropathy in diabetes
ICD-9	357.3	Polyneuropathy in malignant disease
ICD-9	357.4	Polyneuropathy in other diseases classified elsewhere
ICD-9	357.5	Alcoholic polyneuropathy
ICD-9	357.6	Polyneuropathy due to drugs
ICD-9	357.7	Polyneuropathy due to other toxic agents
ICD-9	357.8	Other inflammatory and toxic neuropathy
ICD-9	357.89	Other inflammatory and toxic neuropathy
ICD-9	357.9	Unspecified inflammatory and toxic neuropathy
ICD-10	E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
ICD-10	E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
ICD-10	E11.65	Type 2 diabetes mellitus with hyperglycemia
ICD-10	E10.65	Type 1 diabetes mellitus with hyperglycemia
ICD-10	G60.3	Idiopathic progressive neuropathy
ICD-10	G60.9	Hereditary and idiopathic neuropathy, unspecified
ICD-10	G63	Polyneuropathy in diseases classified elsewhere
ICD-10	E08.42	Diabetes mellitus due to underlying condition with diabetic polyneuropathy
ICD-10	E09.42	Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy
ICD-10	E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy
ICD-10	E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
ICD-10	E13.42	Other specified diabetes mellitus with diabetic polyneuropathy
ICD-10	G62.1	Alcoholic polyneuropathy
ICD-10	G62.0	Drug-induced polyneuropathy
ICD-10	G62.2	Polyneuropathy due to other toxic agents
ICD-10	G61.82	Multifocal motor neuropathy
ICD-10	G61.89	Other inflammatory polyneuropathies
ICD-10	G61.9	Inflammatory polyneuropathy, unspecified
ALS		
ICD-9	335.20	Amyotrophic lateral sclerosis
ICD-10	G12.21	Amyotrophic lateral sclerosis
MS		
ICD-9	340	Multiple sclerosis
ICD-9	G35	Multiple sclerosis Disseminated multiple sclerosis Generalized multiple sclerosis Multiple sclerosis NOS

		Multiple sclerosis of brain stem Multiple sclerosis of cord
ICD-10	G35	Multiple Sclerosis
Epilepsy		
ICD-9	345.00	generalized nonconvulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.01	generalized nonconvulsive epilepsy, with intractable epilepsy
ICD-9	345.10	generalized convulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.11	generalized convulsive epilepsy, with intractable epilepsy
ICD-9	345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
ICD-9	345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
ICD-9	345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
ICD-9	345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
ICD-9	345.60	Infantile spasms, without mention of intractable epilepsy
ICD-9	345.61	Infantile spasms, with intractable epilepsy
ICD-9	345.70	Epilepsia partialis continua, without mention of intractable epilepsy
ICD-9	345.71	Epilepsia partialis continua, with intractable epilepsy
ICD-9	345.90	Epilepsy, unspecified, without mention of intractable epilepsy
ICD-9	345.91	Epilepsy, unspecified, with intractable epilepsy
ICD-10	G40.A09	absence epileptic syndrome, not intractable, without status epilepticus
ICD-10	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10	G40.A19	absence epileptic syndrome, intractable, without status epilepticus
ICD-10	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10	G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10	G40.411	Other generalized
ICD-10	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus

ICD-10	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10	G40.822	Epileptic spasms, not intractable, without status epilepticus
ICD-10	G40.824	Epileptic spasms, intractable, without status epilepticus
ICD-10	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10	G40.919	Epilepsy, unspecified, intractable, without status epilepticus
Dementia		
ICD-9	094.1	Neurosyphilis, General paresis
ICD-10	A52.17	Symptomatic neurosyphilis, General paresis
ICD-9	290.0	Senile dementia, uncomplicated
ICD-9	290.10	Presenile dementia, uncomplicated
ICD-9	290.11	Presenile dementia with delirium
ICD-9	290.12	Presenile dementia with delusional features
ICD-9	290.13	Presenile dementia with depressive features
ICD-9	290.20	Senile dementia with delusional features
ICD-9	290.21	Senile dementia with depressive features
ICD-9	290.3	Senile dementia with delirium
ICD-9	290.40	Vascular dementia, uncomplicated
ICD-9	209.41	Vascular dementia with delirium
ICD-9	290.42	Vascular dementia with delusions
ICD-9	290.43	Vascular dementia with depressed mood
ICD-10	F01.50	Vascular dementia without behavioral disturbance
ICD-10	F01.51	Vascular dementia with behavioral disturbance
ICD-9	290.8	Other specified senile psychotic conditions
ICD-9	290.9	Unspecified senile psychotic condition
ICD-9	294.10	Dementia in conditions classified elsewhere without behavioral disturbance
ICD-10	F02.80	Dementia in other diseases classified elsewhere, without behavioral disturbance
ICD-10	F02.81	Dementia in other diseases classified elsewhere, with behavioral disturbance
ICD-9	294.11	Dementia in conditions classified elsewhere with behavioral disturbance
ICD-9	294.20	Dementia, unspecified, without behavioral disturbance
ICD-9	294.21	Dementia, unspecified, with behavioral disturbance
ICD-10	F03.90	Unspecified dementia without behavioral disturbance
ICD-10	F03.91	Unspecified dementia with behavioral disturbance
ICD-9	294.8	Other persistent mental disorders due to conditions classified elsewhere
ICD-10	F06.0	Psychotic disorder with hallucinations due to known physiological condition
ICD-10	F06.8	Other specified mental disorders due to known physiological condition
ICD-9	331.0	Alzheimer’s disease
ICD-10	G30.0	Alzheimer’s disease with early onset
ICD-10	G30.1	Alzheimer’s disease with late onset
ICD-10	G30.8	Other Alzheimer’s disease
ICD-10	G30.9	Alzheimer’s disease, unspecified

ICD-9	331.11	Pick's disease
ICD-10	G31.01	Pick's disease
ICD-9	331.19	Other frontotemporal dementia
ICD-10	G31.09	Other frontotemporal dementia
ICD-9	331.82	Dementia with Lewy bodies
ICD-10	G31.83	Dementia with Lewy bodies
ICD-10	F05	Delirium due to known physiological condition
CPT		
CPT	99201-99205	Office or other outpatient visit, New Patient
CPT	99211-99215	Office or other outpatient visit, Established Patient
CPT	99241-99245	Office or other outpatient consultation, New or Established Patient
CPT	99304-99310	Nursing facility
CPT	99324-99328, 99334-99337	Domiciliary home
CPT	99341-99345, 99348-99350	Home Visit
CPT	97001	Physical Therapy Evaluation
CPT	97002	Physical Therapy Re-Evaluation
CPT	97003	Occupational Therapy Evaluation
CPT	97004	Occupational Therapy Re-Evaluation
CPT	90791-90792, 90832, 90834, 90837	Psychotherapy
CPT	96116, 96118-96120, 96150	Neuropsychological Testing
CPT	96151-96152, 96154-96155	Health and Behavioral Assessment
CPT	99324-99328	Domiciliary/Rest Home
CPT	99334-99337	Domiciliary/Rest Home
CPT	99341-99345, 99347-99350	Home Health Services

Functional Status Assessment for Patients with Dementia

The numerator definition has been updated with greater specificity below. The use of a finite list of tools to meet the measure is required for data collection through a registry and in accountability programs, such as CMS' Merit-based Incentive Payment System (MIPS). The key phrases are provided to allow leeway in meeting the measure through a structured interview. Exceptions were added to address the measure intent.

Numerator Statement	Patients with dementia for whom an assessment of functional status* was performed at least once in the last 12 months.
	
	*Functional status is assessed by use of a validated tool, direct assessment of the patient, or by querying a knowledgeable informant. A direct assessment of functional status includes an evaluation of the patient's ability to perform instrumental activities of daily living (IADL) and basic activities of daily living (ADL). To meet this measure providers must assess BOTH IADL and ADL performance.
	
	1. IADL Assessment *(users must meet one of the two below bullets to meet IADL assessment component)*
	
	• To meet the measure's IADL component using a validated tool, providers must use one of the following tools:
	  o Lawton Instrumental Activities of Daily Living Scale (1)
	  o Bristol Activities of Daily Living Scale (8)
	  o Katz Index of Independence in Activities of Daily Living (3)
	  o Functional Activities Questionnaire (4)
	  o Functional Independence Measure Instrument (9)
	• To meet the measure's IADL component using a direct assessment, providers must document 3 out of the following 5 domains. Examples of key phrases required to meet the measure via a registry follow each domain:
	  o Cleaning or hobbies,
	  ▪ "Able to keep home/dwelling clean"
	  ▪ "Able to keep home/dwelling tidy"
	  ▪ "Able to do laundry"
	  ▪ "Requires/Needs help with laundry"
	  ▪ "No assistance needed/required with laundry"
	  ▪ "Caregiver/spouse/wife/husband helps with laundry"
	  ▪ "Requires/Needs help with chores"
	  ▪ "No assistance needed/required with chores"
	  ▪ "Caregiver/spouse/wife/husband helps with chores"
	  ▪ "Continues to engage in hobbies"
	  ▪ "No longer able to engage in hobbies"
	  o Money management,
	  ▪ "Able to manage finances for self"
	  ▪ "Requires/Needs help with finances"
	  ▪ "No assistance needed/required with finances"
	  ▪ "Caregiver/spouse/wife/husband helps with finances"

	▪ "Able to pay bills on time" ▪ "Requires/Needs help to pay bills on time" ▪ "No assistance needed/required to pay bills on time" ▪ "Caregiver/spouse/wife/husband helps pay bills on time" ▪ "Requires/Needs help to manage checkbook" ▪ "No assistance needed/required to manage checkbook" ▪ "Caregiver/spouse/wife/husband helps with managing checkbook" o Medication management, ▪ "Able to manage medications" ▪ "Requires/Needs help with managing medications" ▪ "No assistance needed/required with managing medications" ▪ "Caregiver/spouse/wife/husband helps with managing medications" ▪ "Able to take meds independently" ▪ "Requires/Needs help to take meds" ▪ "No assistance needed/required to take meds" ▪ "Caregiver/spouse/wife/husband helps with meds" ▪ "No longer able to manage medications" o Transportation, and ▪ "Able to drive car" ▪ "No longer able to drive" ▪ "Takes public transportation/bus/subway independently" ▪ "Requires/Needs help to take public transportation/bus/subway" ▪ "Requires/Needs help with transportation" ▪ "Caregiver/spouse/wife/husband helps with transportation" o Cooking or communication ▪ "Able to cook for self" ▪ "Dependent on others for most of her/his meals" ▪ "Requires/Needs help with cooking/meals" ▪ "No assistance needed/required with cooking" ▪ "Caregiver/spouse/wife/husband helps with cooking" ▪ "Able to answer telephone/phone/Skype/Facetime/Video call for self" ▪ "Requires/Needs help with answering telephone/phone/Skype/Facetime/Video call" ▪ "Caregiver/spouse/wife/husband helps with answering telephone/phone/Skype/Facetime/Video call" ▪ "Uses telephone/phone/Skype/Facetime/Video call independently" **2. ADL Assessment** *(users must meet one of the two below bullets to meet ADL assessment component)* • To meet the measure's ADL component using a validated tool, providers must use either: o Barthel ADL Index (2) o Bristol Activities of Daily Living Scale (8)

	• To meet the measure's ADL component using a direct assessment, providers must document 3 out of the following 7 domains. Examples of key phrases required to meet the measure via a registry follow each domain: o Grooming, ▪ "Able to care for self" ▪ "Dependent on others for most of her/his self-care" ▪ "Requires/Needs help with hygiene" ▪ "No assistance needed/required for grooming" ▪ "Caregiver/spouse/wife/husband helps groom" o Bathing, ▪ "Independently bathes" ▪ "Requires/Needs help with bathing" ▪ "No assistance needed/required for bathing" ▪ "Caregiver/spouse/wife/husband helps bathing" ▪ "Bathes without assistance" ▪ "Can bathe alone" ▪ "Cannot bathe alone" ▪ "Independently showers" ▪ "Requires/Needs help with showering" ▪ "No assistance needed/required for showering" ▪ "Caregiver/spouse/wife/husband helps shower" ▪ "Showers without assistance" ▪ "Can shower alone" ▪ "Cannot shower alone" ▪ "Takes baths alone" ▪ "Takes showers alone" o Dressing, ▪ "Independently dresses" ▪ "Can dress alone" ▪ "Cannot dress alone" ▪ "No assistance needed/required to dress" ▪ "Difficulty putting on his/her clothes" ▪ "Requires/Needs help with dressing" ▪ "Needs help getting dressed" ▪ "Caregiver/spouse/wife/husband helps dress" o Eating, ▪ "Independently eats" ▪ "No assistance needed/required to eat" ▪ "Difficulty eating independently" ▪ "Requires/Needs help with eating" ▪ "Caregiver/spouse/wife/husband helps with eating" ▪ "Feeds him/herself" o Toileting, ▪ "Independently toilets" ▪ "Dependent for most of her/his toileting" ▪ "Requires/Needs help with toileting" ▪ "No assistance needed/required with toileting" ▪ "Caregiver/spouse/wife/husband helps with toileting" ▪ "Continent of bowel and bladder" ▪ "Incontinent of bowel and bladder"

	▪ "Continent of bowel" ▪ "Incontinent of bowel" ▪ "Continent of urine" ▪ "Incontinent of urine" o Gait, and ▪ "Independently ambulates/walks" ▪ "Using a walker" ▪ "Using an assisted walking device" ▪ "Patient has fallen since last visit" ▪ "Independently navigates/climbs stairs" ▪ "Needs/requires help with stairs" ▪ "Caregiver/spouse/wife/husband helps with stairs" o Transferring ▪ "Independently transfers to bed/toilet" ▪ "Requires help to transfer to bed/toilet" ▪ "Can transfer to toilet/bed" ▪ "Cannot transfer to toilet/bed" ▪ "Caregiver/spouse/wife/husband helps with transfers"
Denominator Statement	All patients with dementia. Diagnostic codes listed in Appendix A.
Denominator Exceptions	• Caregiver knowledge is limited.
Exception Justification	Documentation why an assessment could not be completed due to advanced stage of dementia in combination with a lack of a knowledgeable informant would justified as an exception for failure to gather the data despite best attempts.
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Appendix A: 2018 Diagnostic Codes

In 2018, the AAN and APA seated a small group of technical experts to improve the feasibility of data collection and to address a coding issue identified during implementation. The below codes reflect the 2018 update to the diagnostic codes. The sole changes made were the removal of Parkinson's disease (ICD-9 332.0 and ICD-10 G20) and Human immunodeficiency virus [HIV] disease (ICD-9 042 and ICD-10 B20) from the eligible population.

ICD-9	ICD-10
290.0 Senile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.10 Presenile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.12 Presenile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning

	Code first the underlying physiological condition Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.13 Presenile dementia with depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (Comm)
290.20 Senile dementia with delusional or depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.21 Senile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.40 Vascular dementia, uncomplicated *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.50 Vascular dementia without behavioral disturbance Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.42 Vascular dementia with delusions	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior

Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis	Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.43 Vascular dementia with depressed mood *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
291.2 Alcohol-induced persisting dementia	F10.27 Alcohol dependence with alcohol-induced persisting dementia
294.10 Dementia in conditions classified elsewhere without behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.80 Dementia in other diseases classified elsewhere, without behavioral disturbance Dementia in other diseases classified elsewhere not otherwise specified *Code first the underlying physiologic condition*
294.11 Dementia in conditions classified elsewhere with behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.81 Dementia in other diseases classified elsewhere, with behavioral disturbance Dementia in other diseases classified elsewhere with aggressive behavior Dementia in other diseases classified elsewhere with combative behavior Dementia in other diseases classified elsewhere with violent behavior *Code first the underlying physiologic condition*
294.20 Dementia, unspecified, without behavioral disturbance Dementia, not otherwise specified	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
294.21 Dementia, unspecified, with behavioral disturbance	F03.91 Unspecified dementia with behavioral disturbance Unspecified dementia with aggressive behavior Unspecified dementia with combative behavior Unspecified dementia with violent behavior
331.0 Alzheimer's disease *Use additional code, where applicable, to identify dementia:* with behavioral disturbance (294.11) without behavioral disturbance (294.10)	G30.0 Alzheimer's disease with early onset G30.1 Alzheimer's disease with late onset G30.8 Other Alzheimer's disease G30.9 Alzheimer's disease, unspecified *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.11 Pick's disease	G31.01 Pick's disease Circumscribed brain atrophy Progressive isolated aphasia

	Use additional code to identify: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.19 Other frontotemporal dementia	G31.09 Other frontotemporal dementia
331.6 Corticobasal degeneration	G31.85 Corticobasal degeneration
331.7 Cerebral degeneration in diseases classified elsewhere. *Code first underlying disease*	G94 Other disorders of brain in diseases classified elsewhere *Code first underlying disease*
331.82 Dementia with Lewy bodies	G31.83 Dementia with Lewy bodies Dementia with Parkinsonism Lewy body dementia Lewy body disease
331.89 Other cerebral degeneration, Other (Corticobasal degeneration)	G31.89 Other specified degenerative diseases of nervous system
094.1 Neurosyphilis, General Paresis Dementia Paralytica *Use additional code to identify associated mental disorder*	A52.17 General paresis Dementia paralytica
046.11 Variant Creutzfeld-Jacob disease vCJD *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)* 046.19 Other and unspecified Creutzfeld-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)*	A81.00 Creutzfeldt-Jacob disease, unspecified A81.01 Variant Creutzfeldt-Jacob disease vCJD A81.89 Other Creutzfeldt-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy (with dementia)

Screening and Management of Behavioral and Psychiatric Symptoms Associated with Dementia

Regarding the screening and management of behavioral and psychiatric symptoms associated with dementia, it should be noted that BPSD symptoms were unified into a single quality measure during the previous review in 2015. This change incorporated the previous stand-alone screening of depression into the overall BPSD assessment. Our current literature review reaffirms this decision, as recent studies typically utilize a comprehensive analysis of the full range of behavioral symptoms. For example, a report by Kales, et al. from a multidisciplinary expert panel provided recommendations for the spectrum of aggression, agitation, depression, anxiety, delusions, hallucinations, apathy and disinhibition. (Kales HC, Gitlin LN, Lyketsos CG, et al. Management of neuropsychiatric symptoms of dementia in clinical settings: recommendations from a multidisciplinary expert panel. J Am Geriatr Soc. 2014;62(4):762-769.) Regarding specific treatment interventions for BPSD, there have been a number of recent studies examining both pharmacologic and non-pharmacologic methods as well as the effects of antipsychotic discontinuation. (Dyer SM, Harrison SL, Laver K, et al. An overview of systematic reviews of pharmacological and non-pharmacological interventions for the treatment of behavioral and psychological symptoms of dementia Int Psychogeriatr 2018;30(3):295-309; Van Leeuwen E, Petrovic M, van Driel ML, et al. Withdrawl versus continuation of long-term antispsychotic drug use for behavioural and psychological symptoms in older people with dementia. Cochrane Database Syst Rev. 2018;3:CD007726.) However the findings do not provide data suggesting that a modification to the current quality measures is needed.

The numerator definition has been updated with greater specificity below. The use of a finite list of tools to meet the measure is required for data collection through a registry and in accountability programs, such as CMS' Merit-based Incentive Payment System (MIPS). The key phrases are provided to allow leeway in meeting the measure through a structured interview. Exceptions were added to address the measure intent.

Numerator Statement	Patients with dementia for whom there was a documented screening* for behavioral and psychiatric symptoms, including depression in the last 12 months and for whom, if screening was positive, there was also documentation of recommendations for management in the last 12 months. *Screening is defined as using a validated instrument or directly examining the patient or knowledgeable informant to determine the presence or absence of symptoms from three domains: activity disturbances, mood disturbances (including depression), and thought and perceptional disturbances. The following validated instruments can be used to meet the measure: • Dementia Signs and Symptoms (DSS) Scale (1) • Neuropsychiatric Inventory (NPI) (2) • Minimum Data Set (MDS) (suggested for nursing home only) (4). The following is a non-exhaustive list of symptoms falling into each of the three domains pertinent to this measure: *Activity disturbances (To meet measure, patient or knowledgeable informant must be screened for at least one symptom from this list):*

	• "Activity disturbances" • "Agitation" • "Wandering" • "Purposeless hyperactivity" • "Verbal aggressiveness" • "Physical aggressiveness" • "Resisting care" • "Apathy" • "Impulsiveness" • "Socially inappropriate behaviors" • "Eating disturbances" • "Sleep problems" • "Sleep-wake cycle disturbances" • "Diurnal disturbances" • "Repetitive behavior" • "Minnesota Impulsive Disorders Interview (or MIDI)"(12) *Mood disturbances (To meet measure, patient or knowledgeable informant must be screened for depression AND at least one other mood disturbance.)* • *Depression (Use one of the following depression screening tools or document key phrases)* o "PROMIS Depression"(13) o "PHQ-2"(14) o "PHQ-9"(15) o "Depression Anxiety Scale (or Depression Anxiety Stress Scales or DASS)"(16) o "Center for Epidemiological Studies Depression Scale (or CESD or CES-D)"(17) o "Cornell Scale for Depression (or CSDD)"(18) o "Duke Anxiety Depression Scale (or Duke-AD)"(19) o "Geriatric Depression Scale (or GDS)"(20) o "Hamilton Rating Scale for Depression (or HAM-D)"(21) o "Major Depression Inventory"(22) o "Montgomery Asberg Depression Rating Scale (or MADRS)"(23) o "Wakefield Self-Assessment Depression Inventory"(24) o "Depression" o "Depressed mood" • *Other mood disturbances (Use one of the following screening tools or document key phrases)* o "Anxiety" o "Elation" o "Irritability" o "Mood lability" o "Mood fluctuations" o "PROMIS Anxiety"(25) o "Hamilton Anxiety Rating Scale (or HAM-A or HARS)"(26) o "State Trait Anxiety Rating Scale (or STAI)"(27) o "Self-rating Anxiety Scale"(28) o "Depression Anxiety Scale (or Depression Anxiety Stress Scales or DASS)"(16) o "Duke Anxiety Depression Scale (Duke-AD)"(19)

	o "GAD-2"(29) o "GAD-7"(30) *Thought and perceptual disturbances (To meet measure, patient or knowledgeable informant must be screened for at least one symptom from this list):* • "Thought and perceptual disturbances" • "Having fixed false beliefs" • "Delusions" • "Hearing non-present entities" • "Seeing non-present entities" • "Hallucinations" • "Paranoia" • "Brief psychiatric rating scale (or BPRS)"(31) For positive screening, the following key phrase examples are provided for documentation of recommendations for symptom management: • "Recommendations for symptom management" • "Discussed follow-up plan" • "Follow-up plan developed" • "Treatment plan developed" • "Treatment plan reviewed" • "Treatment plan updated" • "Treatment plan adjusted" • "Medication reviewed" • "Medication adjusted" • "Rx adjusted"
Denominator Statement	All patients with dementia. Diagnostic codes listed in Appendix A.
Denominator Exceptions	None.
Exception Justification	This measure has no exceptions.
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Appendix A: 2018 Diagnostic Codes

In 2018, the AAN and APA seated a small group of technical experts to improve the feasibility of data collection and to address a coding issue identified during implementation. The below codes reflect the 2018 update to the diagnostic codes. The sole changes made were the removal of Parkinson's disease (ICD-9 332.0 and ICD-10 G20) and Human immunodeficiency virus [HIV] disease (ICD-9 042 and ICD-10 B20) from the eligible population.

ICD-9	ICD-10
290.0 Senile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)

290.10 Presenile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.12 Presenile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.13 Presenile dementia with depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (Comm)
290.20 Senile dementia with delusional or depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)

	F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.21 Senile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.40 Vascular dementia, uncomplicated *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.50 Vascular dementia without behavioral disturbance Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.42 Vascular dementia with delusions *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.43 Vascular dementia with depressed mood *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
291.2 Alcohol-induced persisting dementia	F10.27 Alcohol dependence with alcohol-induced persisting dementia
294.10 Dementia in conditions classified elsewhere without behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.80 Dementia in other diseases classified elsewhere, without behavioral disturbance Dementia in other diseases classified elsewhere not otherwise specified *Code first the underlying physiologic condition*
294.11 Dementia in conditions classified elsewhere with behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.81 Dementia in other diseases classified elsewhere, with behavioral disturbance Dementia in other diseases classified elsewhere with aggressive behavior

	Dementia in other diseases classified elsewhere with combative behavior Dementia in other diseases classified elsewhere with violent behavior *Code first the underlying physiologic condition*
294.20 Dementia, unspecified, without behavioral disturbance Dementia, not otherwise specified	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
294.21 Dementia, unspecified, with behavioral disturbance	F03.91 Unspecified dementia with behavioral disturbance Unspecified dementia with aggressive behavior Unspecified dementia with combative behavior Unspecified dementia with violent behavior
331.0 Alzheimer's disease *Use additional code, where applicable, to identify dementia:* with behavioral disturbance (294.11) without behavioral disturbance (294.10)	G30.0 Alzheimer's disease with early onset G30.1 Alzheimer's disease with late onset G30.8 Other Alzheimer's disease G30.9 Alzheimer's disease, unspecified *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.11 Pick's disease	G31.01 Pick's disease Circumscribed brain atrophy Progressive isolated aphasia *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.19 Other frontotemporal dementia	G31.09 Other frontotemporal dementia
331.6 Corticobasal degeneration	G31.85 Corticobasal degeneration
331.7 Cerebral degeneration in diseases classified elsewhere. *Code first underlying disease*	G94 Other disorders of brain in diseases classified elsewhere *Code first underlying disease*
331.82 Dementia with Lewy bodies	G31.83 Dementia with Lewy bodies Dementia with Parkinsonism Lewy body dementia Lewy body disease
331.89 Other cerebral degeneration, Other (Corticobasal degeneration)	G31.89 Other specified degenerative diseases of nervous system
094.1 Neurosyphilis, General Paresis Dementia Paralytica *Use additional code to identify associated mental disorder*	A52.17 General paresis Dementia paralytica
046.11 Variant Creutzfeld-Jacob disease vCJD *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)*	A81.00 Creutzfeldt-Jacob disease, unspecified A81.01 Variant Creutzfeldt-Jacob disease vCJD

046.19 Other and unspecified Creutzfeld-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)*	A81.89 Other Creutzfeldt-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy (with dementia)

Measure #3: Diabetes/Pre-Diabetes Screening for Patients with DSP

Distal Symmetric Polyneuropathy

Measure Description

Percentage of patients age 18 years and older with a diagnosis of distal symmetric polyneuropathy who had screening tests for diabetes (eg fasting blood sugar test, a hemoglobin A1C, or a 2 hour Glucose Tolerance Test) reviewed, requested or ordered when seen for an initial evaluation for distal symmetric polyneuropathy.

Measure Components

Numerator Statement	Patients who had screening tests for diabetes (eg, fasting blood sugar test, hemoglobin A1C, or a 2 hour Glucose Tolerance Test) reviewed, requested, or ordered when seen for an initial evaluation for distal symmetric polyneuropathy.
Denominator Statement	All patients age 18 years and older with a diagnosis of distal symmetric polyneuropathy.
Denominator Exceptions	• Documentation of a medical reason for not reviewing, requesting or ordering diabetes screening tests (eg patient has a diagnosis of diabetes, patient has a known medical condition to cause neuropathy, patient had previous diabetes screening) • Documentation of a patient reason for not reviewing, requesting or ordering diabetes screening tests (eg patient declines to undergo testing) • Documentation of a system reason for not reviewing, requesting or ordering diabetes screening tests (eg patient does not have insurance to pay for testing)
Supporting Guideline & Other References	The following evidence statements are quoted verbatim from the referenced clinical guidelines: • Screening laboratory tests may be considered for all patients with polyneuropathy. (Level C) [27] • Those tests that provide the highest yield of abnormality are blood glucose, serum B12 with metabolites (methylmalonic acid with or without homocysteine), and serum protein immunofixation electrophoresis. (Level C)[27] • If there is no definite evidence of diabetes mellitus by routine testing of blood glucose, testing for impaired glucose tolerance may be considered in distal symmetric sensory polyneuropathy. (Level C) [27] • All patients should be screened for distal symmetric polyneuropathy(DSP) at diagnosis and at least annually thereafter, using simple clinical tests. (Level B)[24]

Measure Importance

Relationship to desired outcome	Early intervention and control of diabetes in DSP patients can improve care. DSP patients screened for pre-diabetes or diabetes may reduce complications over time. Patients with painful diabetic neuropathy sensory polyneuropathy are more likely to have impaired glucose tolerance tests (GTT) than those with painless sensory polyneuropathy.[44] DSP is the most common variety of neuropathy and type of diabetic neuropathy.[1,4] Approximately 30% of neuropathies are caused by diabetes.[3] Neuropathies affect up to 50% of patients with diabetes.[7] Since DSP is the major contributory factor for diabetic foot ulcers and the lower-limb amputation rates in diabetic subjects are 15 times higher than in the non-diabetic population, an early detection of DSP by screening and appropriate diagnosis is of utmost importance.[15]
Opportunity for	Approximately 1.9 million people 20 years and older were newly diagnosed with diabetes in

Improvement	2010. In 2005–2008, based on fasting glucose or hemoglobin A1c levels, 35% of U.S. adults aged 20 years or older had pre-diabetes (50% of adults aged 65 years or older). Applying this percentage to the entire U.S. population in 2010 yields an estimated 79 million American adults aged 20 years or older with prediabetes.[44] DSP affects at least one in four diabetic patients.[1] Diabetes is one of the five major chronic conditions that affect 25% of the US community population[14] and amounted to more than $62.3 billion health care costs in 1996.[9] Data collected between 1988 and 1995 (derived from the Center for Disease Control's population-based Behavioral Risk Factor Surveillance System [BRFSS], as well as the National Health and Nutrition Examination [NHANES] surveys) reveal significant quality gaps in the treatment of diabetes and in screening for diabetes-related complications.[7] Diabetics also do not receive appropriate screening measures: only 55% obtain annual foot examinations.[16] The UK Prospective Diabetes Study showed the effects of different treatment therapies and the associated outcomes over time. The group studied the effects of diet alone and deterioration of glycemic control; this shows the importance of early intervention and control of diabetes.[45]
IOM Domains of Health Care Quality Addressed	• **Safe** • **Effective** • **Efficient**
Exception Justification	If patients already have an underlying diagnosis of diabetes, the testing would include evaluation of degree of glycemic control, rather than tests for initial diagnosis of diabetes. If patients have already been diagnosed with diabetes, has a diagnosed cause of their neuropathy or has previously completed testing they do not need to undergo additional testing as this would be unnecessary. Patients have a right to refuse testing for personal (patient exception) or financial reasons (system exception).
Harmonization with Existing Measures	There are no other measures currently available that are similar to this measure or need to be harmonized with this measure.

Measure Designation

Measure purpose	• Quality improvement • Accountability
Type of measure	• Process
Level of Measurement	• Individual practitioner
Care setting	• Ambulatory care
Data source	• Electronic health record (EHR) data • Administrative Data/Claims (outpatient claims) • Administrative Data/Claims Expanded (multiple-source) • Paper medical record

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based

on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented in reporting programs versus performance assessment programs.

Denominator (Eligible Population)	All patients age 18 years and older with a diagnosis of distal symmetric polyneuropathy. **ICD-9 –CM Diagnosis Codes**: 356.4, 356.9, 357.1, 357.2, 357.3, 357.4, 357.5, 357.6, 357.7, 357.8, 357.89, 357.9, AND **CPT E/M Service Code**: 99201, 99202, 99203, 99204, 99205 (office-new patient), 99211, 99212, 99213, 99214, 99215 (office-established patient), 99304, 99305, 99306, 99307, 99308, 99309, 99310 (nursing facility), 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337 (domiciliary), 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350 (home visit)
Numerator	Patients who had screening tests for diabetes (eg, fasting blood sugar test, hemoglobin A1C, or a 2 hour Glucose Tolerance Test) reviewed, requested, or ordered when seen for an initial evaluation of distal symmetric polyneuropathy. Reporting Instructions: • For all patients meeting the denominator criteria, report CPT Category II code **1119F,** *initial evaluation for condition* or **1501F,** *not initial evaluation for condition***.** • When **1119F** is reported, also report **3754F** *Screening tests for diabetes mellitus reviewed, requested, or ordered.* • **3754F** Screening tests for diabetes mellitus reviewed, requested, or ordered **1119F** Initial evaluation for condition **1501F** Not initial evaluation for condition
Denominator Exceptions	All patients age 18 years and older with a diagnosis of distal symmetric polyneuropathy. • Documentation of a medical reason for not reviewing, requesting or ordering diabetes screening tests (eg patient already had diagnosis of diabetes or patient has a known medical condition to cause neuropathy, patient had previous diabetes screening) o Append modifier to CPT II code: **3754F -1P** • Documentation of a patient reason for not reviewing, requesting or ordering diabetes screening tests (eg patient declines to undergo testing) o Append modifier to CPT II code: **3754F -2P** • Documentation of a system reason for not reviewing, requesting or ordering diabetes screening tests (eg patient does not have insurance to pay for testing) o Append modifier to CPT II code: **3754F -3P**

MEASURE #1: MEDICATION PRESCRIBED FOR ACUTE MIGRAINE ATTACK

Headache

Measure Description

Percentage of patients age 12 years and older with a diagnosis of migraine who were prescribed a guideline recommended medication for acute migraine attacks within the 12 month measurement period.

Measure Components

Numerator Statement	Patients who were prescribed a guideline recommended medication for acute migraine attacks*within the 12 month measurement period. * Guideline recommended acute medications for acute migraine attack include the following but are not limited to: triptans, dihydroergotamine (DHE). Triptans and DHE are only examples of medications that may be used. The clinician should use his/her best judgment to prescribe a medication for acute migraine attacks to meet the specific needs of the individual patient. Note: There is an exception for this measure for patients whose migraines are controlled with over the counter (OTC) medications. Note: The above list of medications/drug names is based on clinical guidelines and other evidence and may not be all-inclusive or current. Physicians and other health care professionals should refer to the Food and Drug Administration's (FDA) web site page entitled "Drug Safety Communications" for up-to-date drug recall and alert information when prescribing medications.
Denominator Statement	All patients age 12 years old and older with a diagnosis of migraine headache.
Denominator Exceptions	Exceptions: • Medical exception for not prescribing a guideline recommended acute migraine medication (i.e., guideline recommended medication is medically contraindicated or ineffective for the patient; migraines are effectively controlled with OTC medications or with NSAIDs; patient is already on an effective acute migraine medication prescribed by another clinician; patient has no pain with migraine) • Patient exception for not prescribing a guideline recommended acute migraine medication (i.e., patient declines a prescription for any acute migraine medication) • System exception for not prescribing a guideline recommended acute migraine medication (i.e., patient does not have insurance to cover the cost of prescribed abortive migraine medication)
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines or evidence papers and represent the evidence base for the measure:** • Triptans for treatment of acute migraine attacks: Sumatriptan 25, 50, 100 mg (oral including rapid-release); 10, 20mg (nasal spray); 6mg (subcutaneous) (Level A) [1];Triptans for treatment of acute migraine attacks: Zolmitriptan 2.5, 5mg (oral including disintegrating form); 2.5, 5 mg (nasal spray) (Level A) [1];Triptans for treatment of acute migraine attacks: Naratriptan 2.5mg (oral) (Level A) [1];Triptans for treatment of acute migraine attacks: Rizatriptan 10 mg (oral including 5 mg when taking propranolol wafer form) (Level A) [1];Triptans for treatment of acute migraine attacks: Almotriptan 12.5 mg (oral) (Level A) [1];Triptans for treatment of acute migraine attacks: Frovatriptan 2.5 mg (oral) (Level A) [1]; Oral triptans are

recommended for acute treatment in patients with all severities of migraine if previous attacks have not been controlled using simple analgesics. (Level A*) [2]; If a patient does not respond to one triptan an alternative triptan should be offered. (Level B) [2]; Triptans for treatment of acute migraine attacks: Eletriptan 20, 40 mg (oral) (Level A) [1]; Almotriptan 12.5 mg, eletriptan 40-or rizatriptan 10 mg, are the preferred oral triptans for acute migraine. (Level A) [2] Naratriptan PO; Rizatriptan PO; Sumatriptan SC, IN, PO; Zolmitriptan PO. (GROUP1)[3]; Almotriptan 12.5 mg, rizatriptan 10 mg, are the preferred oral triptans for acute migraine. (Level A) [2] Triptans for treatment of acute migraine attacks: Eletriptan 20, 40 mg (oral) (Level A) [1].

Children:

- Acute Treatment of Migraine: Ibuprofen is effective and should be considered for the acute treatment of migraine in children. (Level A)[4]
- Acute Treatment of Migraine: Acetaminophen is probably effective and should be considered for the acute treatment of migraine in children. (Level B)[4]
- Acute Treatment of Migraine: Sumatriptan nasal spray is effective and should be considered for the acute treatment of migraine in adolescents. (Level A)[4]
- In the US, almotriptan is approved by the FDA for acute migraine for ages 12 and older. Rizatriptan is approved for ages 6 years old and older. There are no specific guideline recommendations currently published on the use of these two drugs for children and adolescents. The last guideline on pharmacologic treatment for migraine in adolescents was published in 2004. There is a double-blind, placebo-controlled study of almotriptan in adolescents with positive results.[5]
- There is also a review (not a guideline) regarding almotriptan in adolescents.[6]

[1]EFNS guideline on the drug treatment of migraine – revised report of an EFNS task force. *Evers Afra Frese European J of Neurology* 2009, 16: 968–981 (EFNS: 2009; Drug treatment of migraine)
[2] Scottish Intercollegiate Guidelines Network (SIGN) Diagnosis and management of headache in adults Guideline 107. 2008; www.sign.ac.uk
[3] US Headache Consortium. Matchar D, Young W, Rosenberg J et al. Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks. Available at: https://www.aan.com/Guidelines/Home/GetGuidelineContent/7. Accessed 05.01.2013
[4]American Academy of Neurology. Lewis D, Ashwal S, Hershey A et al. Pharmacological treatment of migraine headache in children and adolescents. *Neurology*. 2004; 63; 2215.
[5] Linder SL, Mathew NT, Cady RK et al. Efficacy and tolerability of almotriptan in adolescents: a randomized, double-blind, placebo-controlled trial. *Headache*. 2008; 48(9):1326-36.
[6]Lewis DW. Almotriptan for the acute treatment of adolescent migraine. *Expert Opin Pharmacother*. 2010; 11(14):2431-6.

Rationale for the Measure
Migraine is under diagnosed and suboptimally treated in the majority of patients.

The Work Group noted although there are no guidelines available, almotriptan is approved for ages 12-17 and rizatriptan was recently approved by the FDA for ages 6-17. The Work Group also noted that although the triptans in individuals less than 12 years old may be prescribed off label, there is limited or no evidence to support this.

Gap in Care

Only 29% of patients are satisfied with their acute migraine treatment.[1] Among persons with episodic migraine, 18.31% reported current use of triptans for acute headache treatment.[2] Triptan use increased with headache frequency, headache-related disability and allodynia, but decreased among persons with depression.[2] Less than 1 in 5 persons with migraine in the US who were respondents to this survey used triptans for acute headache treatment over the course of a year.[2]

In a population sample of individuals with episodic migraine (EM), more than 40% have at least one unmet need in the area of acute treatment. The leading reasons for unmet needs, which include headache-related disability and dissatisfaction with current acute treatment, suggest opportunities for improving outcomes for persons with EM.[3]

In an analysis of data from the 2005 American Migraine Prevalence and Prevention (AMPP) study, authors reported that 91.7% of respondents meeting criteria for EM used acute treatment for their headaches. Of these respondents, only 36.1% used migraine-specific medications. Triptans were used by 18.3% of the sample, opioids were used by 11.7% of the sample, and barbiturate medications were used by 6.1% of the sample.[4] According to another study, 21.87% of patients use triptans for acute treatment of migraine, 20% use ergots, 20.87% use opioids, and 13.52% use barbiturates.[5]

Opportunity for Improvement

Using the guideline recommended first-line acute treatments for migraine would provide superior pain relief for migraine sufferers. Triptans and ergots are considered first-line acute treatments for migraine, not opioids or barbiturates according to the US Headache Consortium Guideline.[6] The leading reasons for unmet needs, which include headache-related disability and dissatisfaction with current acute treatment, suggest opportunities for improving outcomes for persons with EM.[3]

[1] Lipton RB, Stewart WF. Acute migraine therapy: do doctors understand what patients with migraine want from therapy? *Headache*. 1999; 39 (suppl 2):S20-S26.)
[2]Bigal ME, Buse DC, Hen YT, et al. Rates and predictors of starting a triptan: results from the American Migraine Prevalence and Prevention Study. *Headache* 2010: 50 (9): 1440-8
[3]Lipton RB, Buse DC, Serrano D, et al. Examination of unmet treatment needs among persons with episodic migraine: results of the American migraine prevalence and prevention (AMPP) study. *Headache* 2011 Presented at the 53rd Annual Scientific Meeting of the AHS, Washington, DC, June 2-5, 2011.
[4] Lipton RB, Buse DC, Seranno D, et al. Acute medication use patterns in episodic migraine: Results of the American migraine prevalence and prevention (AMPP) study. Cephalgia 2009; 29:17 (Presented at the 14th Congress of the International Headache Society, September 10-13, 2009)
[5] Bigal ME, Borouchu S, Serrano D. The acute treatment of episodic and chronic migraine in the United States. *Cephalgia* 2009 29: 891-897.
[6] Matchar DB, Young WB, Rosenerg J, et al. Multispecialty consensus on diagnosis and treatment of headache: pharmacological management of acute attacks. Available at http://www.aan.com/professionals/practice/pdfs/gl0087.pdf (accessed November 2008)

Measure Designation

Measure purpose	• Quality improvement • Accountability
Type of measure	• Process
Level of Measurement	• Individual practitioner
Care setting	• Inpatient • Outpatient visits
Data source	• Electronic health record (EHR) data • Administrative Data/Claims (inpatient or outpatient claims) • Administrative Data/Claims Expanded (multiple-source) • Paper medical record

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible denominator criteria. The specifications listed below are those needed for performance calculation.

Denominator (Eligible Population)

ICD-9 and ICD-10 Diagnosis Codes

ICD-9	ICD-10
346.0 Migraine with aura	Non-specific code
346.00	**G43.109**, Migraine with aura, not intractable, without status migrainosus
346.01	**G43.119**, Migraine with aura, intractable, without status migrainosus
346.02	**G43.101,** Migraine with aura, not intractable, with status migrainosus
346.03	**G43.111**, Migraine with aura, intractable, with status migrainosus
346.1 Migraine without aura	Non-specific code
346.10	**G43.009** Migraine without aura, not intractable, without status migrainosus
346.11	**G43.019** Migraine without aura, intractable, without status migrainosus
346.12	**G43.001**, Migraine without aura, not intractable, with status migrainosus
346.13	**G43.011,** Migraine without aura, intractable with status migrainosus
346.2 Variants of migraine	Non-specific code
346.20	**G43.809**, Other migraine, not intractable without status migrainosus
346.21	**G43.819** Other migraine, intractable, without status migrainosus
346.22	**G43.801**, Other migraine, not intractable, with status migrainosus
346.23	**G43.811**, Other migraine, intractable, with status migrainosus
346.4 Menstrual Migraine	Non-specific code
346.40	**G43.829** Menstrual migraine not intractable, without status migrainous
346.41	**G43.839** Menstrual migraine intractable

	without status migrainosus
346.42	**G43.821** Menstrual migraine not intractable with status migrainosus
346.43	**G43.831** Menstrual migraine intractable with status migrainosus
346.7 Chronic migraine without aura	Non-specific code
346.70	**G43.709** Chronic migraine without aura, not intractable, without status migrainosus
346.71	**G43.719** Chronic migraine without aura, intractable, without status migrainosus
346.72	**G43.701** Chronic migraine without aura, not intractable, with status migrainosus
346.73	**G43.711** Chronic migraine without aura, intractable, with status migrainosus
346.8 Other forms of migraine	Non-specific code
346.80	**G43.809** Other migraine, not intractable, without status migrainosus
346.81	**G43.819** Other migraine intractable without status migrainosus
346.82	**G43.801** Other migraine not intractable with status migrainosus
346.83	**G43.811** Other migraine intractable with status migrainosus
346.9 Migraine unspecified	Non-specific code
346.90	**G43.909** Migraine unspecified not intractable without status migrainosus
346.91	**G43.919** Migraine unspecified intractable without status migrainosus
346.92	**G43.901** Migraine unspecified not intractable with status migrainosus
346.93	**G43.911** Migraine unspecified intractable with status migrainosus

AND

CPT® Evaluation and Management Service Codes:

Outpatient: 99201-5, (Office or other outpatient visit-New Patient); 99211-5 (Office or other outpatient visit-Established Patient); 99241-5 (Office or Other Outpatient Consultation-New or Established Patient);

Inpatient: 99221-99223 (Initial Hospital Care); 99231-99233 (Subsequent Hospital Care); 99238-99239 (Hospital Discharge); 99251-99255 (Initial Inpatient Consultation).

MEASURE #8: QUALITY OF LIFE ASSESSMENT FOR PATIENTS WITH PRIMARY HEADACHE DISORDERS

Headache

Outcome Measure

Measure Description

Percentage of patients with a diagnosis of primary headache disorder whose health related quality of life (HRQoL) was assessed with a tool(s)* during at least two visits* during the 12 month measurement period AND whose health related quality of life score stayed the same or improved***.

Measure Components

Numerator Statement	Patient whose health related quality of life was assessed with a tool(s)* during at least two visits* during the 12 month measurement period AND whose health related quality of life score** stayed the same or improved***. * List quality of life (QoL) tools: Migraine Disability Assessment (MIDAS) and PedMIDAS(proprietary); Headache Impact Test-6 (HIT-6)(proprietary); Migraine Specific Quality of Life Tool (MSQ); Neck Disability Index (NDI)-used for cervicogenic headaches; McGill Questionnaire. ** Timing Between Visits: Must be separated by at least 90 days for MIDAS and at least 4 weeks for any other tool. *** See specific tools for scoring methods related to improvement or stayed the same: Each tool defines improvement differently based on their scoring methodology. For example, when using the MIDAS improvement would be indicated by reduction in MIDAS disability grade and in the HIT-6 a reduction in the number of days with disability overtime indicates improvement.
Denominator Statement	All patients with a diagnosis with a primary headache disorder*. * Primary Headache: For the purpose of this measure this includes the following types of headache: **Migraine:** Migraine without aura, migraine with aura, childhood periodic syndromes that are commonly precursors of migraine, retinal migraine, complications of migraine, probable migraine **Tension-Type Headache (TTH):** Infrequent episodic TTH, frequent episodic TTH, chronic TTH, probable TTH. **Cluster Headache (CH) and Other Trigeminal Autonomic Cephalgias:** Cluster headache, paroxysmal hemicrania, short-lasting unilateral neuralgia form headache attacks with conjunctival injection and tearing (SUNCT), probable trigeminal autonomic cephalgia **Other Primary Headaches:** Primary stabbing headache, primary cough headache, primary exertional headache, primary headache associated with sexual activity, hypnic headache, primary thunderclap headache, hemicrania continua, new daily-persistent headache.
Denominator Exceptions	Exceptions: • Medication exception for not assessing for QoL (i.e., patient has a cognitive or neuropsychiatric impairment that impairs his/her ability to complete the HRQoL survey) • Patient exception for not assessing for QoL (i.e., patient has the inability to read and/or write in order to complete the HRQoL questionnaire

	• System exception for not assessing for QoL (i.e., patient does not have insurance to cover the cost of the QoL assessment)
Supporting Guideline & Other References	This is an outcome measure. There are limited specific guideline recommendations that could be cited. However, this is a strong consensus by the expert Work Group that HRQoL needs to be monitored as a PRO measure. **The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines or evidence papers and represent the evidence base for the measure:** • Discuss the benefits and risks of prophylactic treatment for migraine with the person, taking into account the person's preference, comorbidities, risk of adverse events and the impact of the headache on their QoL. (No level of evidence)[1] • Compared with people without headache and to people with other chronic conditions, people with headache report compromised physical, mental, and social functioning, particularly those with a high frequency of attack. People with headache reported diminished functioning and well-being on all eight domains as compared with people without headache .[2] [1] NICE Headaches: Diagnosis and management of headaches in young people and adults. National Clinical Guideline Centre on behalf of the National Institute for Health and Clinical Excellence (NICE) September 2012; NICE clinical guideline 150 [2]Terwindt GM, Ferrari MD, Tihuis M et al. The impact of migraine on quality of life in the general population: The GEM study *Neurology* 2000 55:624-629
	Rationale for the Measure This measure establishes an initial or baseline QoL score from which the patient should use the same QoL tool/questionnaire at least one additional time during the measurement period. The two assessments must be separated by at least 90 days for MIDAS and at least 4 weeks for any other tool.[3] It is expected that the QoL score or ranking will stay the same or improve in order for this measure to be successfully completed. **Gap in Care** Migraine impacts a person's function sin different activity domains during attacks. HRQoL is affected both during and after attacks.[1] Migraine reduces HRQoL more than osteoarthritis or diabetes.[2] In the US and UK, subjects with migraine had lower scores ($p < 0.001$) on both the Mental Component Score (MCS-12) and Physical Component Score (PCS-12) than their non-migraine counterparts. Significant differences were maintained after controlling for gender, age, and education. Migraine and depression were highly correlated (adjusted prevalence ratio 2.7, 95% CI 2.1 to 3.5). Further, migraine and depression are highly associated with attack frequency (for MCS-12 and PCS-12) and disability (MCS-12). Subjects with migraine selected from the general population have lower HRQoL as measured by the Short Form (SF-morbid) and each exerts a significant and independent influence on HRQoL.[3] **Opportunity for Improvement** This is the first clinician level patient reported outcome measure (PROM) focused on maintaining or improving the QoL of patients with primary headache disorders. The Work Group felt that even though the majority evidence is focused on migraine that patients with other primary headache disorders could greatly benefit from the utilization of this measure.

	The use of PROMs to investigate levels of disability and HRQoL are increasingly being used in headache services research. HRQoL and disability are positively impacted by treatment interventions.[4] Health care professionals often do not recognize the degree and the scope of functional impairment imposed by migraines. There is a missed opportunity for clinicians to effectively communicate with the patient to understand their headache-related disability and appropriately prescribe acute, prophylactic, or biobehavioral treatments. This measure has the potential to reduce personal and societal costs of headache disorders offering a continuity of care. [1]Buse Dc, Rupnow MF, Lipton Rb. Assessing and managing all aspects of migraine: migraine attacks, migraine related functional impairment, common comorbidities, and quality of life. Mayo Clin Proc 2009; 84: 422-435 [2]Buse DC, Manack AN, Fanning KM, et al. Chronic Migraine Prevalence, Disability, and Sociodemographic Factors: Results From the American Migraine Prevalence and Prevention Study. *Headache*. 2012 Jun 22. doi: 10.1111/j.1526-4610.2012.02223.x. [Epub ahead of print] [3]Lipton RB, Hamelsky SW Kolodner KB et al. Migraine, quality of life, and depression A population-based case–control study *Neurology*, 2000 vol. 55 no. 5 629-635 [4]D'Amico D, Grazzi L, Usai S, Leonardi M. Disability and quality of life in headache: where are we not and where we are heading. Neurol Sci 2013 34(S1):S1-S5

Measure Designation

Measure purpose	• Quality improvement • Accountability
Type of measure	• Outcome
Level of Measurement	• Individual practitioner
Care setting	• Outpatient visits
Data source	• Electronic health record (EHR) data • Administrative Data/Claims (inpatient or outpatient claims) • Administrative Data/Claims Expanded (multiple-source) • Paper medical record

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible denominator criteria. The specifications listed below are those needed for performance calculation.

Denominator (Eligible Population)

ICD-9 and ICD-10 Diagnosis Codes:

ICD-9 Code	ICD-10 Code
346 Migraine	G43 Migraine
346.0 Migraine with aura	G43.1 Migraine with aura
346.00 without mention of intractable migraine without mention of status migrainosus	G43.109 Migraine with aura, not intractable, without status migrainosus
346.01 with intractable migraine, so stated, without mention of status migrainosus	G43.119 Migraine with aura, intractable, without status migrainosus
346.02 without mention of intractable migraine with status migrainosus	G43.101 Migraine with aura, not intractable with status migrainosus

346.03 with intractable migraine, so stated, with status migrainosus	G43.111 Migraine with aura, intractable with status migrainosus
346.1 Migraine without aura	G43.0 Migraine without aura
346.10 without mention of intractable migraine without mention of status migrainosus	G43.009 Migraine without aura, not intractable without status migrainosus
346.11 with intractable migraine, so stated, without mention of status migrainosus	G43.019 Migraine without aura, intractable without status migrainosus
346.12 without mention of intractable migraine with status migrainosus	G43.001 Migraine without aura, not intractable with status migrainosus
346.13 with intractable migraine, so stated, with status migrainosus	G43.011 Migraine without aura, intractable with status migrainosus
346.2 Variants of migraine, not elsewhere classified	G43.9 Migraine, unspecified
346.20 without mention of intractable migraine without mention of status migrainosus	G43.909 Migraine, unspecified, not intractable without status migrainosus
346.21 with intractable migraine, so stated, without mention of status migrainosus	G43.919 Migraine, unspecified, intractable without status migrainosus
346.22 without mention of intractable migraine with status migrainosus	G43.901 Migraine, unspecified, not intractable with status migrainosus
346.23 with intractable migraine, so stated, with status migrainosus	G43.911 Migraine, unspecified, intractable with status migrainosus
346.3 Hemiplegic migraine	G43.4Hemiplegic migraine
346.30 without mention of intractable migraine without mention of status migrainosus	G43.409 Hemiplegic migraine, not intractable without status migrainosus
346.31 with intractable migraine, so stated, without mention of status migrainosus	G43.419 Hemiplegic migraine, intractable without status migrainosus
346.32 without mention of intractable migraine with status migrainosus	G43.401 Hemiplegic migraine, not intractable with status migrainosus
346.33 with intractable migraine, so stated, with status migrainosus	G43.411 Hemiplegic migraine, intractable with status migrainosus
346.4 Menstrual migraine	G43.8 Other migraine
346.40 without mention of intractable migraine without mention of status migrainosus	G43.829 Menstrual migraine, not intractable without status migrainosus
346.41 with intractable migraine, so stated, without mention of status migrainosus	G43.839 Menstrual migraine, intractable without status migrainosus
346.42 without mention of intractable migraine with status migrainosus	G43.821 Menstrual migraine, not intractable with status migrainosus
346.43 with intractable migraine, so stated, with status migrainosus	G43.831 Menstrual migraine, intractable with status migrainosus
346.5 Persistent migraine aura without cerebral infarction	G43.5 Persistent migraine aura without cerebral infarction
346.50 without mention of intractable migraine without mention of status migrainosus	G43.509 Persistent migraine aura without cerebral infarction, not intractable without status migrainosus
346.51 with intractable migraine, so stated, without mention of status migrainosus	G43.519 Persistent migraine aura without cerebral infarction, intractable without status migrainosus

346.52 without mention of intractable migraine with status migrainosus	G43.501 Persistent migraine aura without cerebral infarction, not intractable with status migrainosus
346.53 with intractable migraine, so stated, with status migrainosus	G43.511 Persistent migraine aura without cerebral infarction, intractable with status migrainosus
346.6 Persistent migraine aura with cerebral infarction	G43.6 Persistent migraine aura with cerebral infarction
346.60 without mention of intractable migraine without mention of status migrainosus	G43.609 Persistent migraine aura with cerebral infarction, not intractable without status migrainosus
346.61 with intractable migraine, so stated, without mention of status migrainosus	G43.619 Persistent migraine aura with cerebral infarction, intractable without status migrainosus
346.62 without mention of intractable migraine with status migrainosus	G43.601 Persistent migraine aura with cerebral infarction, not intractable with status migrainosus
346.63 with intractable migraine, so stated, with status migrainosus	G43.611 Persistent migraine aura with cerebral infarction, intractable with status migrainosus
346.7 Chronic migraine without aura	G43.7 Chronic migraine without aura
346.70 without mention of intractable migraine without mention of status migrainosus	G43.709 Chronic migraine without aura, not intractable without status migrainosus
346.71 with intractable migraine, so stated, without mention of status migrainosus	G43.719 Chronic migraine without aura, intractable without status migrainosus
346.72 without mention of intractable migraine with status migrainosus	G43.701 Chronic migraine without aura, not intractable with status migrainosus
346.73 with intractable migraine, so stated, with status migrainosus	G43.711 Chronic migraine without aura, intractable with status migrainosus
346.8 Other forms of migraine	G43.8 Other migraine
346.80 without mention of intractable migraine without mention of status migrainosus	G43.809 Other migraine, not intractable without status migrainosus
346.81 with intractable migraine, so stated, without mention of status migrainosus	G43.819 Other migraine, intractable without status migrainosus
346.82 without mention of intractable migraine with status migrainosus	G43.801 Other migraine, not intractable with status migrainosus
346.83 with intractable migraine, so stated, with status migrainosus	G43.811 Other migraine, intractable with status migrainosus
346.9 Migraine unspecified	G43.9 Migraine, unspecified
346.90 without mention of intractable migraine without mention of status migrainosus	G43.909 Migraine, unspecified, not intractable without status migrainosus
346.91 with intractable migraine, so stated, without mention of status migrainosus	G43.919 Migraine, unspecified, intractable without status migrainosus
346.92 without mention of intractable migraine with status migrainosus	G43.901 Migraine, unspecified, not intractable with status migrainosus
346.93 with intractable migraine, so stated, with status migrainosus	G43.911 Migraine, unspecified, intractable with status migrainosus
784 Symptoms involving head and neck	
784.0 Headache	G44.1 Vascular headache, not elsewhere classified R51 Headache

307 Special symptoms or syndromes not elsewhere classified	
307.8 Pain disorders related to psychological factors	
307.81 Tension headache	G44.209 Tension-type headache, unspecified, not intractable
339 Other headache syndromes	
339.0 Cluster headaches and other trigeminal autonomic cephalgias	
339.00 Cluster headache syndrome, unspecified	G44.009 Cluster headache syndrome, unspecified, not intractable
339.01 Episodic cluster headache	G44.019 Episodic cluster headache, not intractable
339.02 Chronic cluster headache	G44.029 Chronic cluster headache, not intractable
339.03 Episodic paroxysmal hemicranias	G44.039 Episodic paroxysmal hemicrania, not intractable
339.04 Chronic paroxysmal hemicranias	G44.049 Chronic paroxysmal hemicrania, not intractable
339.05 Short lasting unilateral neuralgiform headache with conjunctival injection and tearing	G44.059 Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), not intractable
339.09 Other trigeminal autonomic cephalgias	G44.099 Other trigeminal autonomic cephalgias (TAC), not intractable
339.1 Tension type headache	
339.10 unspecified	G44.209 Tension-type headache, unspecified, not intractable
339.11 Episodic tension type headache	G44.219 Episodic tension-type headache, not intractable
339.12 Chronic tension type headache	G44.221 Chronic tension-type headache, intractable G44.229 Chronic tension-type headache, not intractable
339.4 Complicated headache syndromes	
339.41 Hemicrania continua	G44.51 Hemicrania continua
339.42 New daily persistent headache	G44.52 New daily persistent headache (NDPH)
339.43 Primary thunderclap headache	G44.53 Primary thunderclap headache
339.44 Other complicated headache syndrome	G44.59 Other complicated headache syndrome
339.8 Other specified headache syndromes	
339.81 Hypnic headache	G44.81 Hypnic headache
339.82 Headache associated with sexual activity	G44.82 Headache associated with sexual activity
339.83 Primary cough headache	G44.83 Primary cough headache
339.84 Primary exertional headache	G44.84 Primary exertional headache
339.85 Primary stabbing headache	G44.85 Primary stabbing headache
339.89 Other headache syndromes	G44.89 Other headache syndrome

AND

CPT® Evaluation and Management Service Codes:
Outpatient: 99201-5, (Office or other outpatient visit-New Patient);
99211-5 (Office or other outpatient visit-Established Patient); 99241-5 (Office or Other Outpatient Consultation-New or Established Patient);

eMeasure Title	**Falls: Screening for Future Fall Risk**		
eMeasure Identifier (Measure Authoring Tool)	139	**eMeasure Version number**	6.1.000
NQF Number	0101	**GUID**	bc5b4a57-b964-4399-9d40-667c896f31ea
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	National Committee for Quality Assurance		
Measure Developer	American Medical Association (AMA)		
Measure Developer	National Committee for Quality Assurance		
Measure Developer	PCPI(R) Foundation (PCPI[R])		
Endorsed By	National Quality Forum		
Description	Percentage of patients 65 years of age and older who were screened for future fall risk during the measurement period		
Copyright	This Physician Performance Measure (Measure) and related data specifications have been developed by the PCPI(R) Foundation (PCPI[R]) and the National Committee for Quality Assurance (NCQA). This Measure is not a clinical guideline and does not establish a standard of medical care, and has not been tested for all potential applications. The Measure, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, eg, use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measure for commercial gain, or incorporation of the Measure into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measure require a license agreement between the user and the PCPI(R) or NCQA. Neither the American Medical Association (AMA), nor the former AMA-convened Physician Consortium for Performance Improvement(R), PCPI, NCQA nor its members shall be responsible for any use of the Measure. (C) 2017 National Committee for Quality Assurance and PCPI (R) Foundation. All Rights Reserved. Limited proprietary coding is contained in the Measure specifications for user convenience. Users of proprietary code sets should obtain all necessary licenses from the owners of the code sets. NCQA disclaims all liability for use or accuracy of any CPT or other codes contained in the specifications. CPT(R) contained in the Measure specifications is copyright 2004-2016 American Medical Association. LOINC(R) copyright 2004-2016 Regenstrief Institute, Inc. This material contains SNOMED Clinical Terms(R) (SNOMED CT[R]) copyright 2004-2016 International Health Terminology Standards Development Organisation. ICD-10 copyright 2016 World Health Organization. All Rights Reserved. The American Hospital Association holds a copyright to the National Uniform Billing Committee (NUBC) codes contained in the measure specifications. The NUBC codes in the specifications are included with the permission of the AHA. The NUBC codes contained in the specifications may be used by health plans and other health care delivery organizations for the purpose of calculating and reporting Measure results or using Measure results for their internal quality improvement purposes. All other uses of the NUBC codes require a license from the AHA. Anyone desiring to use the NUBC codes in a commercial product to generate Measure results, or for any other commercial use, must obtain a commercial use license directly from the AHA. To inquire about licensing, contact ub04@healthforum.com.		
Disclaimer	The performance Measure is not a clinical guideline and does not establish a standard of medical care, and has not been tested for all potential applications. THE MEASURE AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. Due to technical limitations, registered trademarks are indicated by (R) or [R] and unregistered trademarks are indicated by (TM) or [TM].		
Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	As the leading cause of both fatal and nonfatal injuries for older adults, falls are one of the most common and significant health issues facing people aged 65 years or older (Schneider, Shubert and Harmon 2010). Moreover, the rate of falls increases with age (Dykes et al. 2010). Older adults are five times more likely to be hospitalized for fall-related injuries than any other cause-related injury. It is estimated that one in every three adults over 65 will fall each year (Centers for Disease Control and Prevention 2015). In those over age 80, the rate of falls increases to fifty percent (Doherty et al. 2009). Falls are also associated with substantial cost and resource use, approaching $30,000 per fall hospitalization (Woolcott et al. 2011). Identifying at-risk patients is the most important part of management, as applying preventive measures in this vulnerable population can have a profound effect on public health (al-Aama		

	2011). Family physicians have a pivotal role in screening older patients for risk of falls, and applying preventive strategies for patients at risk (al-Aama 2011).
Clinical Recommendation Statement	All older persons who are under the care of a heath professional (or their caregivers) should be asked at least once a year about falls. (AGS/BGS/AAOS) Older persons who present for medical attention because of a fall, report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should have a fall evaluation performed. This evaluation should be performed by a clinician with appropriate skills and experience, which may necessitate referral to a specialist (eg, geriatrician). (AGS/BGS/AAOS) Older people in contact with health care professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context, and characteristics of the falls. (NICE) (Grade C) Older people reporting a fall or considered at risk of falling should be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve strength and balance. (NICE) (Grade C)
Improvement Notation	A higher score indicates better quality
Reference	al-Aama, T. 2011. "Falls in the Elderly: Spectrum and Prevention." Can Fam Physician 57(7):771-6.
Reference	Centers for Disease Control and Prevention. 2015. "Important Facts about Falls" (December 14, 2015) http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html
Reference	Doherty, M., and J. Crossen-Sills. 2009. "Fall Risk: Keep your patients in balance." The Nurse Practitioner: The American Journal of Primary Health Care 34(12):46-51.
Reference	American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention: Guideline for the prevention of falls in older persons. Journal of the American Geriatrics Society. 2001; 49: 664-672.
Reference	National Institute for Clinical Excellence (NICE). Falls: the assessment and prevention of falls in older people. November 2004; clinical guideline 21. Available at: https://www.nice.org.uk/guidance/cg161
Reference	Dykes, P.C., D.L. Carroll DL, A. Hurley A, S. Lipsitz S, A. Benoit A, F. Chang F, S. Meltzer S, R. Tsurikova R, L. Zuyov L, B. Middleton B. 2010. "Fall Prevention in Acute Care Hospitals: A Randomized Trial." JAMA . 2010;304(17):1912-1918.
Reference	Schneider, E.C., T.E. Shubert, and K.J. Harmon. 2010. "Addressing the Escalating Public Health Issue of Falls Among Older Adults." NC Med J 71(6):547-52.
Reference	Woolcott, J.C., K.M. Khan, S. Mitrovic, A.H. Anis, C.A. Marra. 2011. "The Cost of Fall Related Presentations to the ED: A Prospective, In-Person, Patient-Tracking Analysis of Health Resource Utilization." Osteporos Int [Epub ahead of print].
Definition	Screening for Future Fall Risk: Assessment of whether an individual has experienced a fall or problems with gait or balance. A specific screening tool is not required for this measure, however potential screening tools include the Morse Fall Scale and the timed Get-Up-And-Go test. Fall: A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.
Guidance	None
Transmission Format	TBD
Initial Population	Patients aged 65 years and older with a visit during the measurement period
Denominator	Equals Initial Population
Denominator Exclusions	Exclude patients who were in hospice care during the measurement year. Exclude patients who were assessed to be non-ambulatory during the measurement period.
Numerator	Patients who were screened for future fall risk at least once within the measurement period
Numerator Exclusions	Not Applicable
Denominator Exceptions	None
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex

Table of Contents

- Population Criteria
- Data Criteria (QDM Variables)
- Data Criteria (QDM Data Elements)
- Supplemental Data Elements

- Risk Adjustment Variables

Population Criteria

- **Initial Population =**
  - AND: Age>= 65 year(s) at: "Measurement Period"
  - AND: Union of:
    - "Encounter, Performed: Face-to-Face Interaction"
    - "Encounter, Performed: Office Visit"
    - "Encounter, Performed: Preventive Care Services-Individual Counseling"
    - "Encounter, Performed: Nursing Facility Visit"
    - "Encounter, Performed: Care Services in Long-Term Residential Facility"
    - "Encounter, Performed: Home Healthcare Services"
    - "Encounter, Performed: Preventive Care Services-Initial Office Visit, 18 and Up"
    - "Encounter, Performed: Preventive Care Services - Established Office Visit, 18 and Up"
    - "Encounter, Performed: Annual Wellness Visit"
    - "Encounter, Performed: Audiology Visit"
    - "Encounter, Performed: Ophthalmological Services"
    - during "Measurement Period"
- **Denominator =**
  - AND: Initial Population
- **Denominator Exclusions =**
  - OR: "Encounter, Performed: Encounter Inpatient (discharge status: Discharged to Home for Hospice Care)" ends during "Measurement Period"
  - OR: "Encounter, Performed: Encounter Inpatient (discharge status: Discharged to Health Care Facility for Hospice Care)" ends during "Measurement Period"
  - OR: Union of:
    - "Intervention, Order: Hospice care ambulatory"
    - "Intervention, Performed: Hospice care ambulatory"
    - overlaps "Measurement Period"
  - OR: "Assessment, Performed: Patient not ambulatory" overlaps "Measurement Period"
- **Numerator =**
  - AND: "Assessment, Performed: Falls Screening" during "Measurement Period"
- **Numerator Exclusions =**
  - None
- **Denominator Exceptions =**
  - None
- **Stratification =**
  - None

Data Criteria (QDM Variables)

- None

Data Criteria (QDM Data Elements)

- "Assessment, Performed: Falls Screening" using "Falls Screening Grouping Value Set (2.16.840.1.113883.3.464.1003.118.12.1028)"
- "Assessment, Performed: Patient not ambulatory" using "Patient not ambulatory Grouping Value Set (2.16.840.1.113883.3.464.1003.118.12.1009)"
- "Encounter, Performed: Annual Wellness Visit" using "Annual Wellness Visit Grouping Value Set (2.16.840.1.113883.3.526.3.1240)"
- "Encounter, Performed: Audiology Visit" using "Audiology Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1066)"
- "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: Encounter Inpatient" using "Encounter Inpatient SNOMEDCT Value Set (2.16.840.1.113883.3.666.5.307)"
- "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: Office Visit" using "Office Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Ophthalmological Services" using "Ophthalmological Services Grouping Value Set (2.16.840.1.113883.3.526.3.1285)"
- "Encounter, Performed: Preventive Care Services - Established Office Visit, 18 and Up" using "Preventive Care Services - Established Office Visit, 18 and Up Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1025)"
- "Encounter, Performed: Preventive Care Services-Individual Counseling" using "Preventive Care Services-Individual Counseling Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1026)"
- "Encounter, Performed: Preventive Care Services-Initial Office Visit, 18 and Up" using "Preventive Care

Services-Initial Office Visit, 18 and Up Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1023)"
- "Intervention, Order: Hospice care ambulatory" using "Hospice care ambulatory SNOMEDCT Value Set (2.16.840.1.113762.1.4.1108.15)"
- "Intervention, Performed: Hospice care ambulatory" using "Hospice care ambulatory SNOMEDCT Value Set (2.16.840.1.113762.1.4.1108.15)"
- Attribute: "Discharge status: Discharged to Health Care Facility for Hospice Care" using "Discharged to Health Care Facility for Hospice Care SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.207)"
- Attribute: "Discharge status: Discharged to Home for Hospice Care" using "Discharged to Home for Hospice Care SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.209)"

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

Quality ID #154 (NQF: 0101): Falls: Risk Assessment
– National Quality Strategy Domain: Patient Safety
– Meaningful Measure Area: Preventable Healthcare Harm

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process -High Priority

DESCRIPTION:
Percentage of patients aged 65 years and older with a history of falls that had a risk assessment for falls completed within 12 months

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. This measure is appropriate for use in all non-acute settings (with the exception of emergency departments and acute care hospitals). This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients aged 65 years and older who have a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year). Documentation of patient reported history of falls is sufficient

Denominator Criteria (Eligible Cases):
Patients aged ≥ 65 years on date of encounter
AND
Patient encounter during the performance period (CPT or HCPCS): 92540, 92541, 92542, 92548, 97161, 97162, 97163, 97164, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439
AND
Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year: 1100F
AND NOT
DENOMINATOR EXCLUSIONS:
Hospice services for patient provided any time during the measurement period: G9718

NUMERATOR:
Patients who had a risk assessment for falls completed within 12 months

Definitions:

Fall – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.

Risk Assessment – Comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.

Balance/gait Assessment - Medical record must include documentation of observed transfer and walking or use of a standardized scale (e.g., Get Up & Go, Berg, Tinetti) or documentation of referral for assessment of balance/gait.

Postural blood pressure - Documentation of blood pressure values in supine and then standing positions.

Vision Assessment - Medical record must include documentation that patient is functioning well with vision or not functioning well with vision based on discussion with the patient or use of a standardized scale or assessment tool (e.g., Snellen) or documentation of referral for assessment of vision.

Home fall hazards Assessment - Medical record must include documentation of counseling on home falls hazards or documentation of inquiry of home fall hazards or referral for evaluation of home fall hazards.

Medications Assessment - Medical record must include documentation of whether the patient's current medications may or may not contribute to falls.

Numerator Instructions:

All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

Numerator Options:

Performance Met: Falls risk assessment documented **(3288F)**

OR

Denominator Exception: Documentation of medical reason(s) for not completing a risk assessment for falls (i.e., patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair **(3288F *with* 1P)**

OR

Performance Not Met: Falls risk assessment not completed, reason not otherwise specified **(3288F *with* 8P)**

RATIONALE:

Screening for specific medical conditions may direct the therapy. Although the clinical guidelines and supporting evidence calls for an evaluation of many factors, it was felt that for the purposes of measuring performance and facilitating implementation this initial measure must be limited in scope. For this reason, the work group defined an evaluation of balance and gait as a core component that must be completed on all patients with a history of falls as well as four additional evaluations – at least one of which must be completed within the 12 month period. Data elements required for the measure can be captured and the measure is actionable by the physician.

CLINICAL RECOMMENDATION STATEMENTS:

Older people who present for medical attention because of a fall, or report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should be offered a multifactorial falls risk assessment. This assessment should be performed by a health care professional with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualized, multifactorial intervention. (NICE) (Grade C)

Multifactorial assessment may include the following:

- Identification of falls history
- Assessment of gait, balance and mobility, and muscle weakness
- Assessment of osteoporosis risk
- Assessment of the older person's perceived functional ability and fear relating to falling
- Assessment of visual impairment
- Assessment of cognitive impairment and neurological examination
- Assessment of urinary incontinence
- Assessment of home hazards
- Cardiovascular examination and medication review (nice) (grade c)

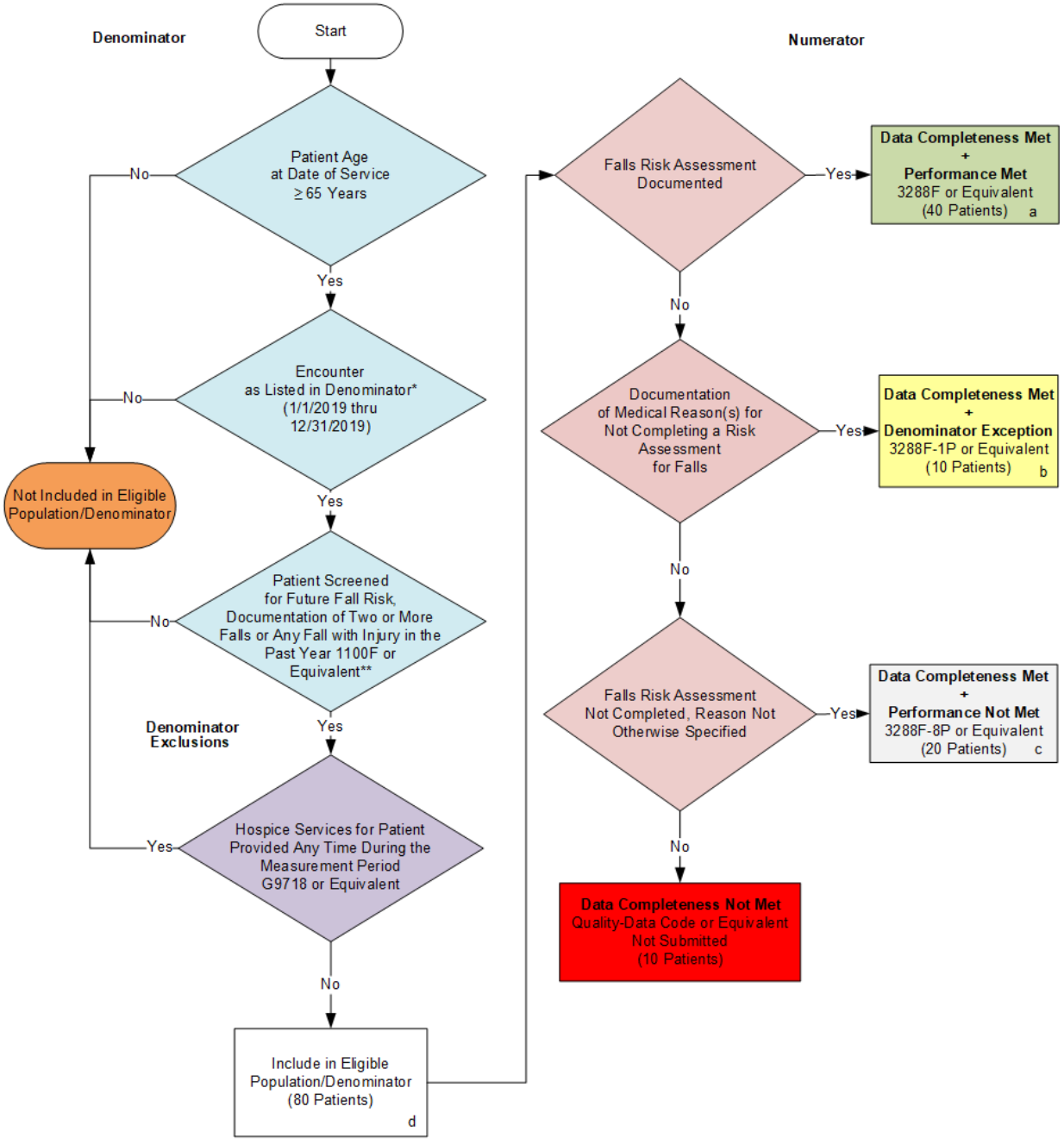
A falls risk assessment should be performed for older persons who present for medical attention because of a fall, report recurrent falls in the past year, report difficulties in walking or balance or fear of falling, or demonstrate unsteadiness or difficulty performing a gait and balance test.

The falls risk evaluation should be performed by a clinician with appropriate skills and experience. [C] A falls risk assessment is a clinical evaluation that should include the following, but are not limited to:

- A history of fall circumstances
- Review of all medications and doses
- Evaluation of gait and balance, mobility levels and lower extremity joint function
- Examination of vision
- Examination of neurological function, muscle strength, proprioception, reflexes, and tests of cortical, extrapyramidal, and cerebellar function
- Cognitive evaluation
- Screening for depression
- Assessment of postural blood pressure
- Assessment of heart rate and rhythm
- Assessment of heart rate and rhythm, and blood pressure responses to carotid sinus stimulation if appropriate
- Assessment of home environment

The falls risks assessment should be followed by direct intervention on the identified risk. [A] (AGS)

2019 Clinical Quality Measure Flow for Quality ID #154 NQF #0101: Falls: Risk Assessment



*See the posted Measure Specification for specific coding and instructions to submit this measure. This measure flow is for registry-based submission of the measure.
NOTE: Submission Frequency: Patient-process

v3

2019 Clinical Quality Measure Flow for Quality ID #154 NQF #0101: Falls: Risk Assessment

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=20 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=40 patients) = 40 patients = **66.67%**

Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

*See the posted Measure Specification for specific coding and instructions to submit this measure. This measure flow is for registry-based submission of the measure.
NOTE: Submission Frequency: Patient-process

v3

2019 Clinical Quality Measure Flow Narrative for Quality ID #154: Falls: Risk Assessment

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 65 Years on Date of Service equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 65 Years on Date of Service equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Patient Screened for Future Fall Risk, Documentation of Two or More Falls or Any Fall with Injury in the Past Year.
4. Check Patient Screened for Future Fall Risk, Documentation of Two or More Falls or Any Fall with Injury in the Past Year:
    a. If Patient Screened for Future Fall Risk, Documentation of Two or More Falls or Any Fall with Injury in the Past Year equals No, do not include in Eligible Population. Stop Processing.
    b. If Patient Screened for Future Fall Risk, Documentation of Two or More Falls or Any Fall with Injury in the Past Year equals Yes, proceed to check Hospice Services Provided Any Time During the Measurement Period.
5. Check Hospice Services Provided Any Time During the Measurement Period:
    a. If Hospice Services Provided Any Time During the Measurement Period equals No, include in Eligible Population.
    b. If Hospice Services Provided Any Time During the Measurement Period equals Yes, do not include in Eligible Population. Stop Processing.
6. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check Risk Assessment for Falls Documented:
    a. If Risk Assessment for Falls Documented equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

c. If Risk Assessment for Falls documented equals No, proceed to check Risk Assessment for Falls Not Completed, Medical Reason.

9. Check Risk Assessment for Falls Not Completed, Medical Reason:

   a. If Risk Assessment for Falls Not Completed, Medical Reason equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.

   c. If Risk Assessment for Falls documented equals No, proceed to check Risk Assessment for Falls Not Completed, Reason Not Otherwise Specified.

10. Check Risk Assessment for Falls Not Completed, Reason Not Otherwise Specified:

    a. If Risk Assessment for Falls Not Completed, Reason Not Otherwise Specified equals Yes, include in the Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.

    c. If Risk Assessment for Falls Not Completed, Reason Not Otherwise Specified equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=20 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=40 patients) = 40 patients = **66.67%**

Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

Quality ID #155 (NQF: 0101): Falls: Plan of Care
– National Quality Strategy Domain: Communication and Care Coordination
– Meaningful Measure Area: Preventable Healthcare Harm

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of patients aged 65 years and older with a history of falls that had a plan of care for falls documented within 12 months

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. This measure is appropriate for use in all non-acute settings (with the exception of emergency departments and acute care hospitals). This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients aged 65 years and older with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year). Documentation of patient reported history of falls is sufficient

Denominator Criteria (Eligible Cases):
Patients aged ≥ 65 years on date of encounter
AND
Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year: 1100F
AND
Patient encounter during the performance period (CPT or HCPCS): 92540, 92541, 92542, 92548, 97161, 97162, 97163, 97164, 97165, 97166, 97167, 97168, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439
AND NOT
DENOMINATOR EXCLUSIONS:
Hospice services for patient occurred any time during the measurement period: G9720

NUMERATOR:
Patients with a plan of care for falls documented within 12 months

Definitions:
Plan of Care – Must include: balance, strength, and gait training.

Balance, Strength, and Gait Training – Medical record must include: documentation that balance, strength, and gait training/instructions were provided OR referral to an exercise program, which includes at least one of the three components: balance, strength or gait OR referral to physical therapy.
Fall – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.

Numerator Instructions:
All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

Numerator Options:

Performance Met:	Falls plan of care documented **(0518F)**
OR	
Denominator Exception:	Patient not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair **(0518F *with* 1P)**
OR	
Performance Not Met:	Falls plan of care not documented, reason not otherwise specified **(0518F *with* 8P)**

RATIONALE:
Interventions to prevent future falls should be documented for the patient with 2 or more falls or injurious falls.

CLINICAL RECOMMENDATION STATEMENTS:
The USPSTF recommends exercise or physical therapy to prevent falls in community-dwelling adults aged 65 years or older who are at increased risk for falls.
Grade: B Recommendation.
The AGS 2010 Clinical Practice Guidelines Recommend:
Multifactorial/Multicomponent Interventions to Address Identified Risk(s) and Prevent Falls

1. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk factors and management of the risk factors identified. [A]
2. The components most commonly included in efficacious interventions were:
   a. Adaptation or modification of home environment [A]
   b. Withdrawal or minimization of psychoactive medications [B]
   c. Withdrawal or minimization of other medications [C]
   d. Management of postural hypotension [C]
   e. Management of foot problems and footwear [C]
   f. Exercise, particularly balance, strength, and gait training [A]
3. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]
4. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]
5. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]

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The performance Measure is not a clinical guideline and does not establish a standard of medical care, and has not been tested for all potential applications.

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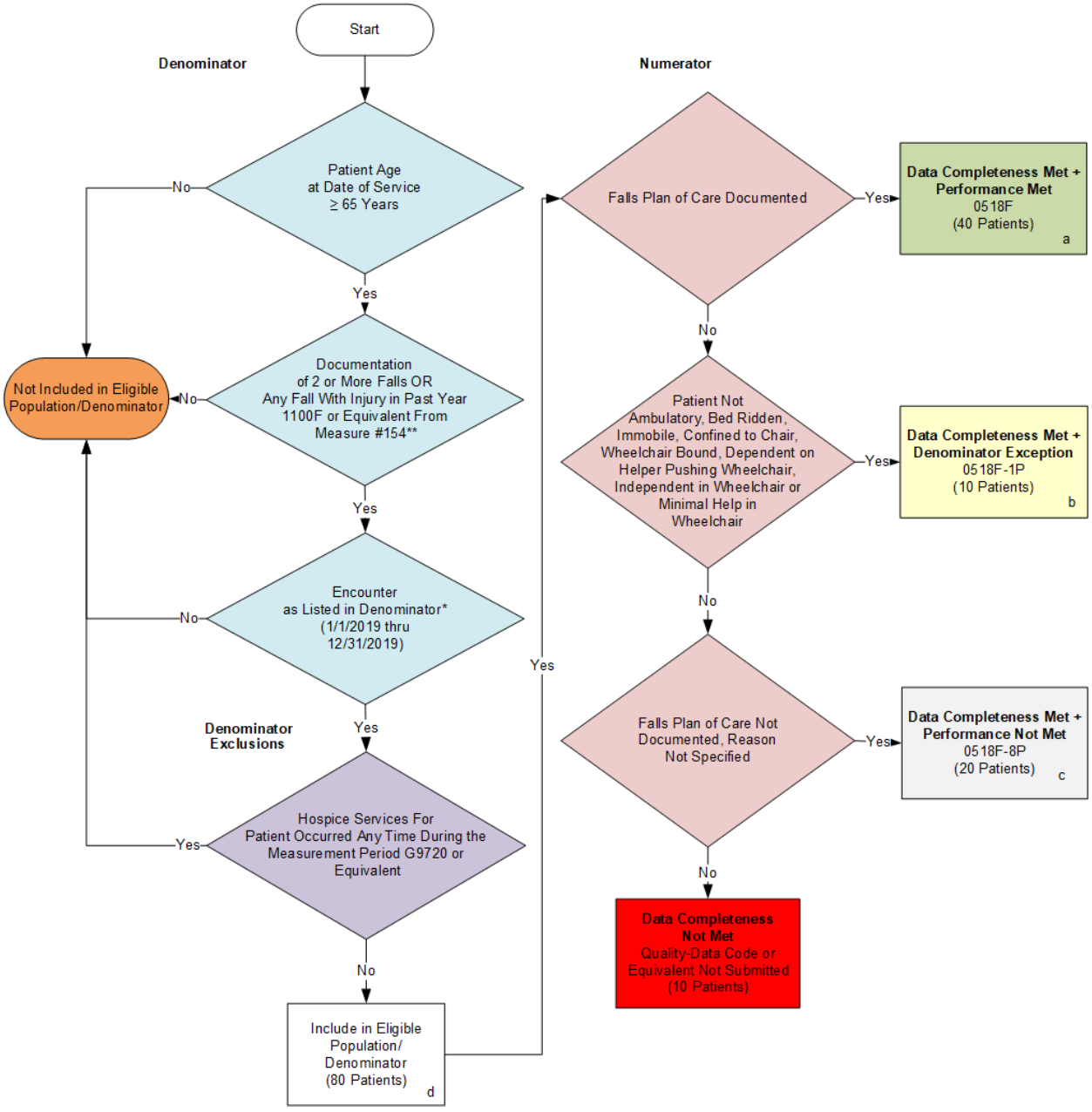
2019 Clinical Quality Measure Flow for Quality ID #155 NQF #0101: Falls: Plan of Care



* See the posted Measure Specification for specific coding and instructions to submit this measure.
** Submitting measure #154 is a precursor for submitting this measure. Patients where 1100F without modifier or equivalent (documentation of 2 or more falls or any fall with injury in past year) is submitted in measure #154 are pulled into the denominator for measure #155.
NOTE: Submission Frequency – Patient process

v3

2019 Clinical Quality Measure Flow for Quality ID #155 NQF #0101: Falls: Plan of Care

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 patients)+Denominator Exception (b=10 patients)+ Performance Not Met (c=20 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=40 patients) = 40 patients = 66.**67%**

Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

* See the posted Measure Specification for specific coding and instructions to submit this measure.

** Submitting measure #154 is a precursor for submitting this measure. Patients where 1100F without modifier or equivalent (documentation of 2 or more falls or any fall with injury in past year) is submitted in measure #154 are pulled into the denominator for measure #155.

NOTE: Submission Frequency: Patient process

2019 Clinical Quality Measure Flow Narrative for Quality ID#155 NQF #0101: Falls: Plan of Care

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 65 Years on Date of Service equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 65 Years on Date of Service equals Yes during the measurement period, proceed to check Documentation of Two or More Falls or Any Fall with Injury in the Past Year.
3. Check Documentation of Two or More Falls or Any Fall with Injury in the Past Year:
    a. If Documentation of Two or More Falls or Any Fall with Injury in the Past Year equals No, do not include in Eligible Population. Stop Processing.
    b. If Documentation of Two or More Falls or Any Fall with Injury in the Past Year equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, procced to check Hospice Services For Patient Occurred Any Time During the Measurement Period.
5. Check Hospice Services For Patient Occurred Any Time During the Measurement Period:
    a. If Hospice Services For Patient Occurred Any Time During the Measurement Period equals No, include in Eligible Population.
    b. If Hospice Services For Patient Occurred Any Time During the Measurement Period equals Yes, do not include in Eligible Population. Stop Processing.
6. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check Falls Plan of Care Documented:
    a. If Falls Plan of Care Documented equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in Sample Calculation.

c. If Falls Plan of Care Documented equals No, proceed to check Patient is not Ambulatory, Bed Ridden, Immobile, Confined to Chair, Wheelchair Bound, Dependent on Helper Pushing Wheelchair, Independent in Wheelchair or Minimal Help in Wheelchair.

9. Check Patient is not Ambulatory, Bed Ridden, Immobile, Confined to Chair, Wheelchair Bound, Dependent on Helper Pushing Wheelchair, Independent in Wheelchair or Minimal Help in Wheelchair:

   a. If Patient is not Ambulatory, Bed Ridden, Immobile, Confined to Chair, Wheelchair Bound, Dependent on Helper Pushing Wheelchair, Independent in Wheelchair or Minimal Help in Wheelchair equals Yes, include in Data Completeness Met and Denominator Exception.

   b. Data Completeness Met and Denominator Exception letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in Sample Calculation.

   c. If Patient is not Ambulatory, Bed Ridden, Immobile, Confined to Chair, Wheelchair Bound, Dependent on Helper Pushing Wheelchair, Independent in Wheelchair or Minimal Help in Wheelchair equals No, proceed to check Falls Plan of Care Not Documented, Reason Not Specified.

10. Check Falls Plan of Care Not Documented, Reason Not Specified:

    a. If Falls Plan of Care Not Documented, Reason Not Specified equals Yes, include in the Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.

    c. If Falls Risk Assessment Not Completed, Reason Not Specified equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 patients)+Denominator Exception (b=10 patients)+ Performance Not Met (c=20 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=40 patients) = 40 patients = **66.67%**

Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

Quality ID #130 (NQF 0419): Documentation of Current Medications in the Medical Record
– National Quality Strategy Domain: Patient Safety
– Meaningful Measure Area: Medication Management

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the MIPS eligible professional or MIPS eligible clinician attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list ***must*** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND ***must*** contain the medications' name, dosage, frequency and route of administration

INSTRUCTIONS:
This measure is to be submitted at **each denominator eligible visit** during the 12 month performance period. Merit-based Incentive Payment System (MIPS) eligible clinicians meet the intent of this measure by making their best effort to document a current, complete and accurate medication list during each encounter. There is no diagnosis associated with this measure. This measure may be submitted by MIPS eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All visits for patients aged 18 years and older

> ***DENOMINATOR NOTE*****:** **Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.*
>
> **Denominator Criteria (Eligible Cases):**
> Patients aged ≥ 18 years on date of encounter
> **AND**
> **Patient encounter during the performance period (CPT or HCPCS):** 59400, 59510, 59610, 59618, 90791, 90792, 90832, 90834, 90837, 90839, 92002, 92004, 92012, 92014, 92507, 92508, 92526, 92537, 92538, 92540, 92541, 92542, 92544, 92545, 92547, 92548, 92550, 92557, 92567, 92568, 92570, 92585, 92588, 92626, 96116, 96121, 96130, 96131, 96132, 96133, 96136, 96137, 96138, 96139, 96146, 96150, 96151, 96152, 97127*, 97161, 97162, 97163, 97164, 97165, 97166, 97167, 97168, 97802, 97803, 97804, 98960, 98961, 98962, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99221, 99222, 99223, 99236, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99318, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99339, 99340, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99495, 99496, 99281, 99282, 99283, 99284, 99285, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, G0101, G0108, G0270, G0402, G0438, G0439, G0515

NUMERATOR:
MIPS eligible professional or MIPS eligible clinician attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list ***must*** include ALL known prescriptions, over-the counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND ***must*** contain the medications' name, dosages, frequency and route of administration

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.
Route – Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible (Denominator Exception) – A patient is not eligible if the following reason is documented:

- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status on the date of the encounter.

NUMERATOR NOTE: *The MIPS eligible clinician must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. MIPS eligible clinicians submitting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. By submitting the action described in this measure, the provider attests to having documented a list of current medications utilizing all immediate resources available at the time of the encounter.* ***G8427*** *should be submitted if the MIPS eligible clinician documented that the patient is not currently taking any medications.*

Numerator Options:

Performance Met:	Eligible clinician attests to documenting in the medical record they obtained, updated, or reviewed the patient's current medications **(G8427)**
OR	
Denominator Exception:	Eligible clinician attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible clinician **(G8430)**
OR	
Performance Not Met:	Current list of medications not documented as obtained, updated, or reviewed by the eligible clinician, reason not given **(G8428)**

RATIONALE:
Prescription medication use is common among adults of all ages, particularly older adults and adults with chronic conditions. On average, 81% of adults in the U.S. are taking at least one medication (prescription or nonprescription, vitamin/mineral, herbal/natural supplement); 29% are taking five or more. Older adults are the biggest consumers of medications with 17-19% of people 65 and older taking at least ten medications in a given week (Qato et al., 2008). In this context, maintaining an accurate and complete medication list has proven to be a challenging documentation endeavor for various health care provider settings. While most of outpatient encounters (2/3) result in providers prescribing at least one medication, hospitals have been the focus of medication safety efforts (Stock et al., 2009). Nassaralla et al. (2007) caution that this is at odds with the current trend, where patients with chronic illnesses are increasingly being treated in the outpatient setting and require careful monitoring of multiple medications. Additionally, Nassaralla et al. (2007) reveal that it is in fact in outpatient settings where more fatal adverse drug events (ADE) occur when these are compared to those occurring in hospitals (1 of 131 outpatient deaths compared to 1 in 854 inpatient deaths). In the outpatient setting, adverse drug events (ADEs) occur 25% of the time and over one-third of these are considered preventable (Tache et al., 2011). Particularly vulnerable are patients over 65 years, with evidence

suggesting that the rate of ADEs per 10,000 person per year increases with age; 25-44 years old at 1.3; 45-64 at 2.2, and 65 + at 3.8 (Sarkar et al., 2011). Another vulnerable group are chronically ill individuals. These population groups are more likely to experience ADEs and subsequent hospitalization.

A multiplicity of providers and inadequate care coordination among them has been identified as barriers to collecting complete and reliable medication records. Data indicate that reconciliation and documentation continues to be poorly executed with discrepancies occurring in 92% (74 of 80 patients) of medication lists among admittance to the emergency room. Of 80 patients included in the study, the home medications were re ordered for 65% of patients on their admission and of the 65% the majority (29%) had a change in their dosing interval, while 23% had a change in their route of administration, and 13% had a change in dose. A total of 361 medication discrepancies, or the difference between the medications patients were taking before admission and those listed in there admission orders, were identified in at least 74 patients (Poornima et al., 2015). The study found that “Through an appropriate reconciliation programme, around 80% of errors relating to medication and the potential harm caused by these errors could be reduced” (Poornima et al., 2015, p. 243).

Documentation of current medications in the medical record facilitates the process of medication review and reconciliation by the provider, which are necessary for reducing ADEs and promoting medication safety. The need for provider to provider coordination regarding medication records, and the existing gap in implementation, is highlighted in the American Medical Association's (AMA) Physician's Role in Medication Reconciliation (2007), which states that "critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes" (American Medical Association, 2007, p.7). This is because clinical decisions based on information that is incomplete and/or inaccurate are likely to lead to medication error and ADEs. Weeks et al. (2010) noted similar barriers and identified the utilization of health information technology as an opportunity for facilitating the creation of universal medication lists.

One 2015 meta-analysis showed an association between EHR documentation with an overall RR of 0.46 (95% CI = 0.38 to 0.55; P < 0.001) and ADEs with an overall RR of 0.66 (95% CI = 0.44 to 0.99; P = 0.045). This meta-analysis provides evidence that the use of the EHR can improve the quality of healthcare delivered to patients by reducing medication errors and ADEs (Campanella et al., 2016).

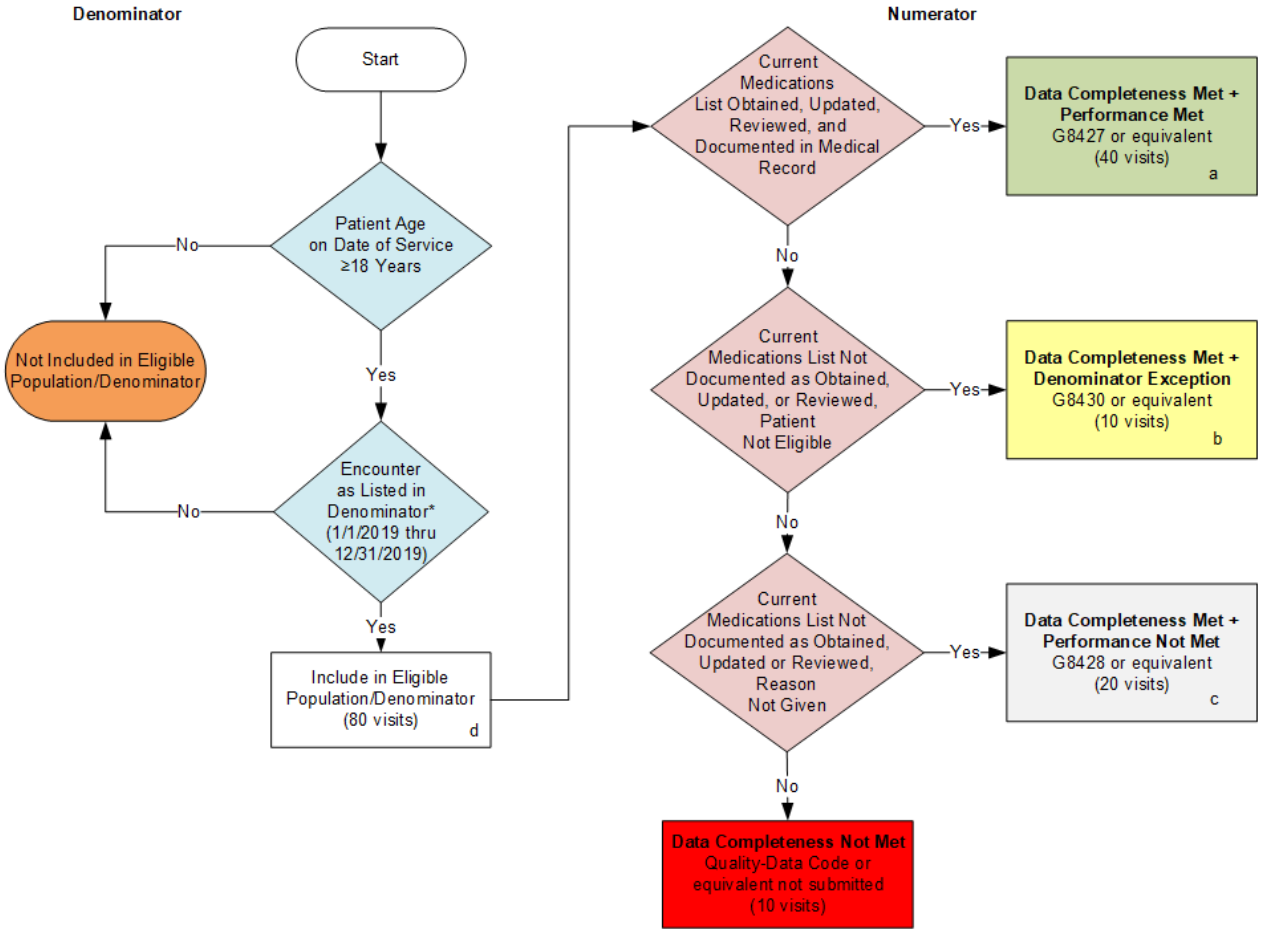
CLINICAL RECOMMENDATION STATEMENTS:

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: http://www.jointcommission.org/assets/1/6/2015_NPSG_AHC1.PDF).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care (p. 40).

THE MEASURES AND SPECIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND.

2019 Clinical Quality Measure Flow for Quality ID #130 NQF #0419: Documentation of Current Medications in the Medical Record



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 visits) + Denominator Exception (b=10 visits) + Performance Not Met (c=20 visits) = 70 visits = **87.50%**

Eligible Population / Denominator (d=80 visits) = 80 visits

Performance Rate=

Performance Met (a=40 visits) = 40 visits = **66.67%**

Data Completeness Numerator (70 visits) – Denominator Exception (b=10 visits) = 60 visits

*See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Visit

v3

2019 Clinical Quality Measure Flow Narrative For Quality ID #130 NQF #0419: Documentation of Current Medications in the Medical Record

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to18 Years at Date of Service equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to18 Years at Date of Service equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, include in Eligible Population.
4. Denominator Population:
    a. Denominator Population is all Eligible Visits in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 visits in the Sample Calculation.
5. Start Numerator
6. Check Current Medications List Obtained, Updated, Reviewed and Documented in Medical Record:
    a. If Current Medications List Obtained, Updated, Reviewed and Documented in Medical Record equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 visits in the Sample Calculation.
    c. If Current Medications List Obtained, Updated, Reviewed and Documented in Medical Record equals No, proceed to check Current Medications List Not Documented as Obtained, Updated or Reviewed, Patient Not Eligible.
7. Check Current Medications List Not Documented as Obtained, Updated or Reviewed, Patient Not Eligible:
    a. If Current Medications List Not Documented as Obtained, Updated or Reviewed, Patient Not Eligible equals Yes, include in Data Completeness Met and Denominator Exception.
    b. Data Completeness Met and Denominator Exception letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 visits in the Sample Calculation.
    c. If Current Medications List Not Documented as Obtained, Updated or Reviewed, Patient Not Eligible equals No, proceed to check Current Medications List Not Documented as Obtained, Updated or Reviewed, Reason Not Given.
8. Check Current Medications List Not Documented as Obtained, Updated or Reviewed, Reason Not Given:
    a. If Current Medications List Not Documented as Obtained, Updated or Reviewed, Reason Not Given equals Yes, include in Data Completeness Met and Performance Not Met.
    b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 visits in the Sample Calculation.

c. If Current Medications List Not Documented as Obtained, Updated or Reviewed, Reason Not Given equals No, proceed to check Data Completeness Not Met.

9. Check Data Completeness Not Met:

   a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 visits have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 visits) + Denominator Exception (b=10 visits) + Performance Not Met (c=20 visits) / Eligible Population / Denominator (d=80 visits) = 70 visits / 80 visits = **87.50%**

Performance Rate=

Performance Met (a=40 visits) / Data Completeness Numerator (70 visits) – Denominator Exception (b=10 visits) = 40 visits / 60 visits = **66.67%**

Quality ID #47 (NQF 0326): Care Plan – National Quality Strategy Domain: Communication and Care Coordination

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. There is no diagnosis associated with this measure. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: *This measure is appropriate for use in all healthcare settings (e.g., inpatient, nursing home, ambulatory) except the emergency department. For each of these settings, there should be documentation in the medical record(s) that advance care planning was discussed or documented.*

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients aged 65 years and older

> ***DENOMINATOR NOTE:*** *Eligible clinicians indicating the Place of Service as the emergency department will not be included in this measure.*
>
> **Denominator Criteria (Eligible Cases):**
> Patients aged ≥ 65 years on date of encounter
> **AND**
> **Patient encounter during the performance period (CPT or HCPCS):** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99218, 99219, 99220, 99221, 99222, 99223, 99231, 99232, 99233, 99234, 99235, 99236, 99291, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439
> **AND NOT**
> **DENOMINATOR EXCLUSION:**
> **Hospice services received by patient any time during the measurement period:** G9692

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan

Numerator Instructions: If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, submit 1124F.

NUMERATOR NOTE: *The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.*

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Services typically provided under CPT codes 99497 and 99498 satisfy the requirement of Advance Care Planning discussed and documented, minutes. If a patient received these types of services, submit CPT II 1123F or 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:

- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

Numerator Options:

Performance Met:	Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record **(1123F)**
OR	
Performance Met:	Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan **(1124F)**
OR	
Performance Not Met:	Advance care planning not documented, reason not otherwise specified **(1123F *with* 8P)**

RATIONALE:
It is essential that the patient's wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an

established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:

Advance directives are designed to respect patient's autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements:

- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills):

- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy:

- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

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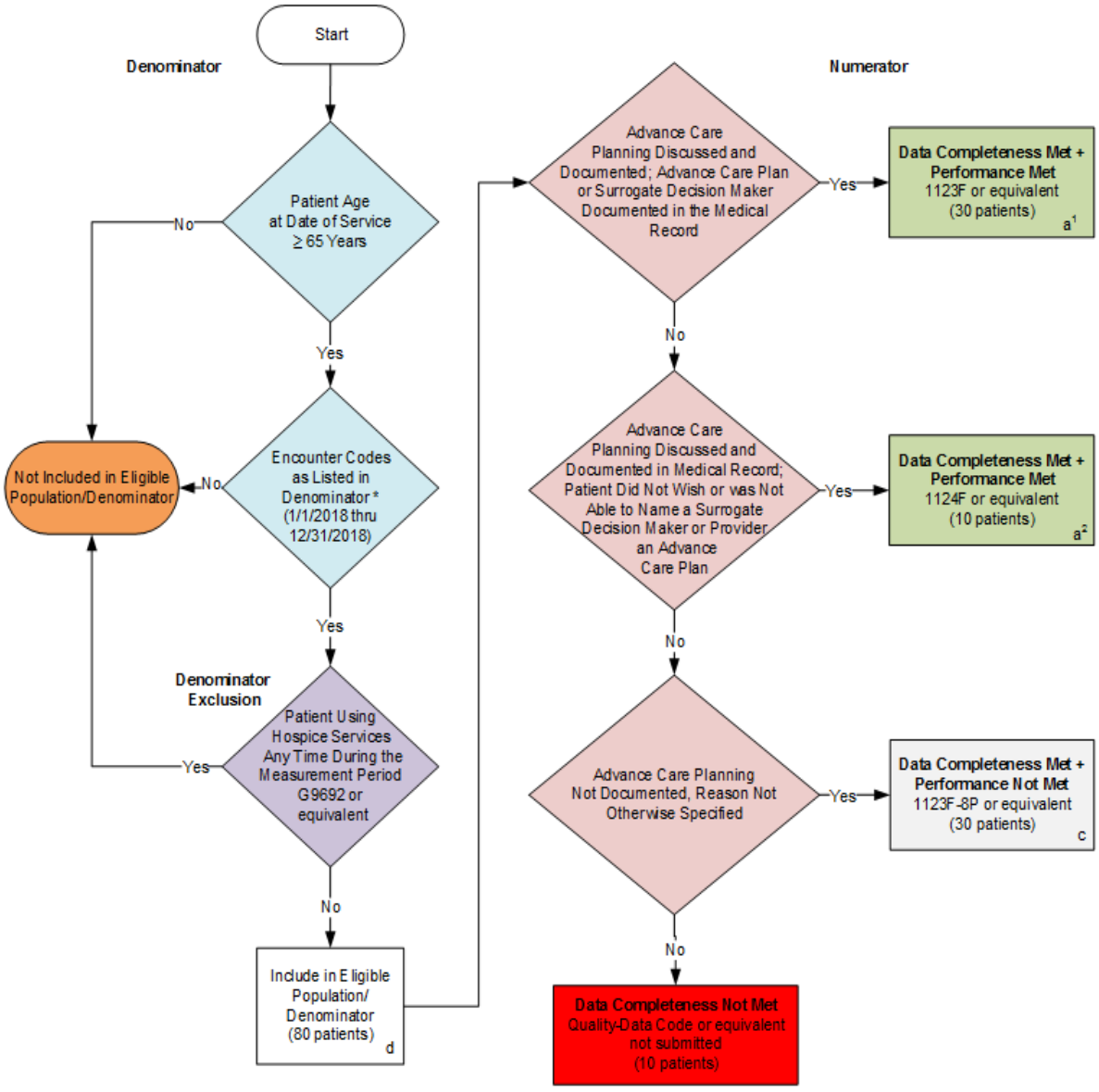
2018 Registry Flow for Quality ID #47 NQF #0326: Care Plan



SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a^1+a^2=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a^1+a^2=40 patients) = 40 patients = **57.14%**

Data Completeness Numerator (70 patients) = 70 patients

* See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-process

v2

2018 Registry Flow for Quality ID
#47 NQF #0326: Care Plan

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

1. Start with Denominator

2. Check Patient Age:

    a. If the Age is greater than or equal to 65 years of age on Date of Service and equals No during the Measurement Period, do not include in Eligible Patient Population. Stop Processing.

    b. If the Age is greater than or equal to 65 years of age on Date of Service and equals Yes during the Measurement Period, proceed to check encounter performed.

3. Check Encounter Performed:

    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.

    b. If Encounter as Listed in the Denominator equals Yes, include in the Eligible Population, proceed to check Hospice Services Received by Patient Any Time During the Measurement Period.

4. Check Hospice Services Received by Patient Any Time During the Measurement Period:

    a. If Hospice Services Received by Patient Any Time During the Measurement Period equals No, include in the Eligible Population.

    b. If Hospice Services Received by Patient Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.

5. Denominator Population:

    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check Advanced Care Planning Discussed and Documented; Advance Care Plan or Surrogate Decision Maker Documented in the Medical Record:

    a. If Advanced Care Planning Discussed and Documented; Advance Care Plan or Surrogate Decision Maker Documented in the Medical Record equals Yes, include in Data Completeness Met and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a^1 equals 30 patients in the Sample Calculation.

    c. If Advanced Care Planning Discussed and Documented; Advance Care Plan or Surrogate Decision Maker Documented in the Medical Record equals No, proceed to Advanced Care Planning Discussed

and Documented in Medical Record; Patient Did Not Wish or was Not Able to Name a Surrogate Decision Maker or Provide an Advance Care Plan.

8. Check Advanced Care Planning Discussed and Documented in Medical Record; Patient Did Not Wish or was Not Able to Name a Surrogate Decision Maker or Provide an Advance Care Plan:

    a. If Advanced Care Planning Discussed and Documented in Medical Record; Patient Did Not Wish or was Not Able to Name a Surrogate Decision Maker or Provide an Advance Care Plan equals Yes, include in Data Completeness Met and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a^2 equals 10 patients in the Sample Calculation.

    c. If Advanced Care Planning Discussed and Documented in Medical Record; Patient Did Not Wish or was Not Able to Name a Surrogate Decision Maker or Provide an Advance Care Plan equals No, proceed to Advance Care Planning Not Documented, Reason Not Otherwise Specified.

9. Check Advance Care Planning Not Documented, Reason Not Otherwise Specified:

    a. If Advance Care Planning Not Documented, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If Advance Care Planning Not Documented, Reason Not Otherwise Specific equals No, proceed to Data Completeness Not Met.

10. Check Data Completeness Not Met:

    a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a^1+a^2=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a^1+a^2=40 patients) = 40 patients = **57.14%**

Data Completeness Numerator (70 patients) = 70 patients

Quality ID #374: Closing the Referral Loop: Receipt of Specialist Report – National Quality Strategy Domain: Effective Communication and Care Coordination

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients with referrals, regardless of age, for which the referring provider receives a report from the provider to whom the patient was referred

INSTRUCTIONS:
This measure is to be submitted a minimum of once per performance period for all patients with a referral during the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure for the patients for whom a referral was made during the performance period based on the services provided and the measure-specific denominator coding. Eligible professionals or eligible clinicians reporting on this measure should note that all data for the reporting year is to be submitted by the deadline established by CMS. Therefore, eligible professionals or eligible clinicians who see patients towards the end of the reporting period (ie, December in particular), should communicate the consultant report as soon as possible in order for those patients to be counted in the measure numerator. Communicating the report as soon as possible will ensure the data is included in the submission to CMS.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
Number of patients, regardless of age, who were referred by one provider to another provider, and who had a visit during the measurement period

> *DENOMINATOR NOTE*: *If there are multiple referrals for a patient during the performance period, use the first referral.*
>
> **Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.*
>
> Denominator Criteria (Eligible Cases):
> Patients regardless of age on the date of the encounter
> AND
> Patient encounter during the performance period (CPT or HCPCS): 92002, 92004, 92012, 92014, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99381*, 99382*, 99383*, 99384*, 99385*, 99386*, 99387*, 99391*, 99392*, 99393*, 99394*, 99395*, 99396*, 99397*
> WITHOUT
> Telehealth Modifier: GQ, GT, 95, POS 02
> AND
> Patient was referred to another provider or specialist during the performance period: G9968

NUMERATOR:
Number of patients with a referral, for which the referring provider received a report from the provider to whom the patient was referred

NUMERATOR NOTE: The consultant report that will fulfill the referral should be completed after the referral, and should be related to the referral for which it is attributed. If there are multiple consultant reports received by the referring provider which pertain to a particular referral, use the first consultant report to satisfy the measure.

The provider to whom the patient was referred should be the same provider that sends the report.

Definitions:
Referral: A request from one physician or other eligible provider to another practitioner for evaluation, treatment, or co-management of a patient's condition. This term encompasses referral and consultation as defined by Centers for Medicare and Medicaid Services.

Numerator Options:

Performance Met:	Provider who referred the patient to another provider received a report from the provider to whom the patient was referred G9969
OR	
Performance Not Met:	Provider who referred the patient to another provider did not receive a report from the provider to whom the patient was referred G9970

RATIONALE:
Problems in the outpatient referral and consultation process have been documented, including lack of timeliness of information and inadequate provision of information between the specialist and the requesting physician (Gandhi, 2000; Forrest, 2000; Stille, 2005). In a study of physician satisfaction with the outpatient referral process, Gandhi et al. (2000) found that 68% of specialists reported receiving no information from the primary care provider prior to referral visits, and 25% of primary care providers had still not received any information from specialists 4 weeks after referral visits. In another study of 963 referrals (Forrest, 2000), pediatricians scheduled appointments with specialists for only 39% and sent patient information to the specialists in only 51% of the time.

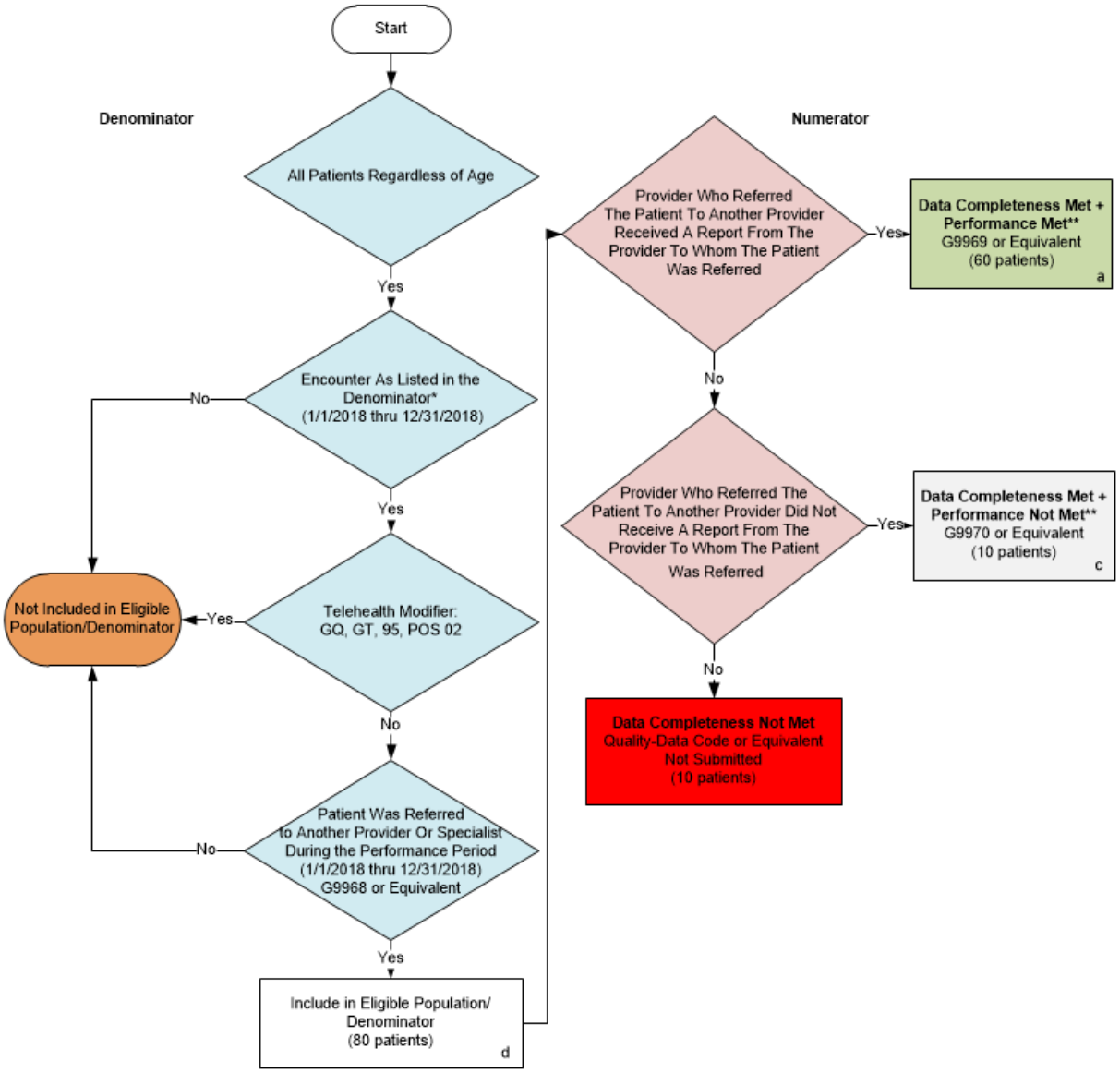
In a 2006 report to Congress, MedPAC found that care coordination programs improved quality of care for patients, reduced hospitalizations, and improved adherence to evidence-based care guidelines, especially among patients with diabetes and CHD. Associations with cost-savings were less clear; this was attributed to how well the intervention group was chosen and defined, as well as the intervention put in place. Additionally, cost-savings were usually calculated in the short-term, while some argue that the greatest cost-savings accrue over time (MedPAC, 2006).

Improved mechanisms for information exchange could facilitate communication between providers, whether for time-limited referrals or consultations, on-going co-management, or during care transitions. For example, a study by Branger et al. (1999) found that an electronic communication network that linked the computer-based patient records of physicians who had shared care of patients with diabetes significantly increased frequency of communications between physicians and availability of important clinical data. There was a 3-fold increase in the likelihood that the specialist provided written communication of results if the primary care physician scheduled appointments and sent patient information to the specialist (Forrest, 2000).

Care coordination is a focal point in the current health care reform and our nation's ambulatory health information technology (HIT) framework. The National Priorities Partnership recently highlighted care coordination as one of the most critical areas for development of quality measurement and improvement (NPP, 2008).

CLINICAL RECOMMENDATION STATEMENTS:
None

2018 Registry Flow for Quality ID #374: Closing the Referral Loop: Receipt of Specialist Report



SAMPLE CALCULATION:

Data Completeness=
Performance Met (a=60 patients) + Performance Not Met (c=10 patients) = 70 patients= **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=60 patients) = 60 patients= **85.71%**
Data Completeness Numerator (70 patients) = 70 patients

* See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Process

2018 Registry Flow for Quality ID # 374: Closing the Referral Loop: Receipt of Specialist Report

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in submitting this Individual Measure. This flow is for registry data submission.

1. Start with Denominator
2. Check Patient Age
    a. All Patients Regardless of Age, proceed to check Encounter Performed.
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
4. Check Telehealth Modifier:
    a. If Telehealth Modifier equals No, proceed to check Referral to Another Eligible Clinician or Provider.
    b. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
5. Check Referral to Another Eligible Clinician or Provider
    a. If Referral to Another Eligible Clinician or Provider equals Yes, include in the Eligible Population.
    b. If Referral to Another Eligible Clinician or Provider equals No, do not include in Eligible Patient Population. Stop Processing.
6. Denominator Population
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check Report from the Eligible Clinician or Provider to Whom the Patient was Referred is Received:
    a. If Report from the Eligible Clinician or Provider to Whom the Patient was Referred is Received equals Yes, include in Data Completeness Met and Performance Met.
    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 60 patients in the Sample Calculation.
    c. If Report from the Eligible Clinician or Provider to Whom the Patient was Referred is Received equals No, proceed to Report from the Eligible Clinician or Provider to Whom the Patient was Referred Not Received.
9. Check Report from the Eligible Clinician or Provider to Whom the Patient was Referred Not Received:

a. If Report from the Eligible Clinician or Provider to Whom the Patient was Referred Not Received equals Yes, include in Data Completeness Met and Performance Not Met.

b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 10 patients in the Sample Calculation.

c. If Report from the Eligible Clinician or Provider to Whom the Patient was Referred Not Received equals No, proceed to Data Completeness Not Met.

10. Check Data Completeness Not Met:

    a. If Data Completeness Not Met equals No, Quality-Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATION:

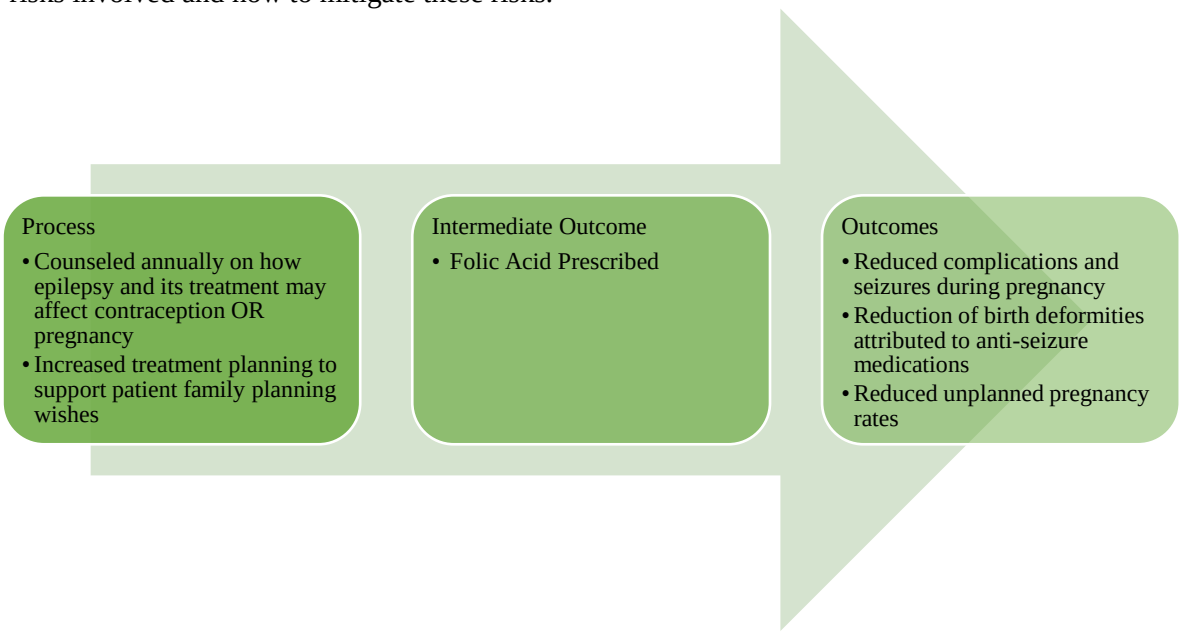
Data Completeness=
Performance Met (a=60 patients) + Performance Not Met (c=10 patients) = 70 patients= **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=60 patients) = 60 patients= **85.71%**
Data Completeness Numerator (70 patients) = 70 patients

2017 Epilepsy Measure Specifications

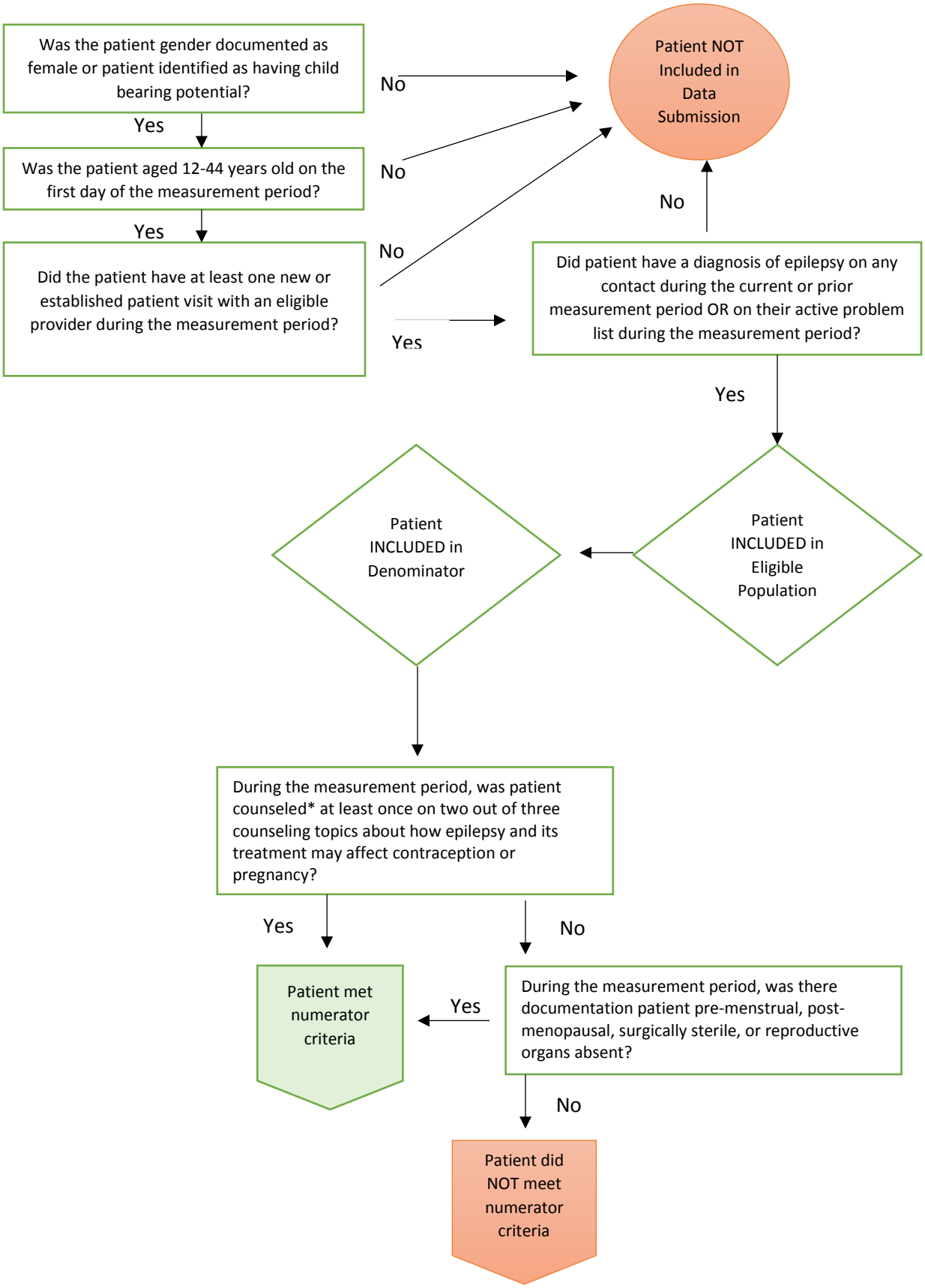
Counseling for Women of Childbearing Potential with Epilepsy

Measure Title	Counseling for Women of Childbearing Potential with Epilepsy	
Description	Percentage of all patients of childbearing potential (12-44 years old) diagnosed with epilepsy who were counseled at least once a year about how epilepsy and its treatment may affect contraception and pregnancy.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient Care
	Ages	Between 12-44 years old
	Event	Office visit
	Diagnosis	Epilepsy
Denominator	All females, including all individuals of childbearing potential (12-44 years old) with a diagnosis of epilepsy.	
Numerator	Patients or caregivers counseled* at least once a year about how epilepsy and its treatment may affect contraception and/or pregnancy. Measure is met if patient has documentation they are pre-menstrual, post-menopausal, surgically sterile, or reproductive organs absent. *Counseling must include a discussion of at least two of the following three counseling topics: • Need for folic acid^ supplementation (1), • Drug to drug interactions with contraception medication (2,3), • Potential anti-seizure medications effect(s) on fetal/child development and/or pregnancy (2,3). ^Note a folic acid prescription alone will not meet the measure, as there are multiple reasons folic acid may be prescribed. The work group note the intent is to ensure counseling is provided, as many patients are prescribed folic acid without knowing the rationale for the prescription.	
Required Exclusions	None	
Allowable Exclusions	None	
Exclusion Rationale	Not Applicable	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Provider	
Risk Adjustment	Not Applicable	
For Process Measures Relationship to Desired Outcome	Epilepsy is associated with reduced fertility, increased pregnancy risks, and risks for malformations in the infant.(4) Treatment of seizures with anti-seizure medications may alter hormone levels, render oral contraceptives less effective and may interfere with embryonic and fetal development.(5-8) Certain anti-seizure medications have higher risks for congenital malformations and cognitive or behavioral developmental risks.(7,8) Folic acid supplementation, monotherapy for epilepsy, using lower doses of medication when possible, and proper obstetrical,	

	prenatal and pre-pregnancy care all should be discussed with the patient, so they understand the risks involved and how to mitigate these risks. 
Opportunity to Improve Gap in Care	Counseling and discussion for women with epilepsy can have important and beneficial effects (9,10) with the goal of reducing unplanned pregnancies, birth/cognitive deficits to infants, and complications that can occur during pregnancy and/or delivery for women with epilepsy. Guidelines (11) and interventions (12) are available in the literature to assist in how to provide such important information. However, gaps in providing such counseling to women with epilepsy exist (13-15). The denominator language has been expanded to require counseling be provided to all patients of childbearing potential, including self-identified males who may be capable of bearing children. This language was added to capture LBGTQ+ populations who may have counseling needs overlooked. The numerator counseling definition was drafted for simplicity of data collection. When addressing drug-to-drug interactions this counseling should include information on possible interactions leading to higher rates of unplanned pregnancy for women with epilepsy. Potential anti-seizure medications effect(s) on fetal/child development and/or pregnancy counseling should include information on the risks of stopping medication(s) without consulting treatment team providers if a patient with epilepsy becomes pregnant unexpectedly.
Harmonization with Existing Measures	There are no known similar measures.

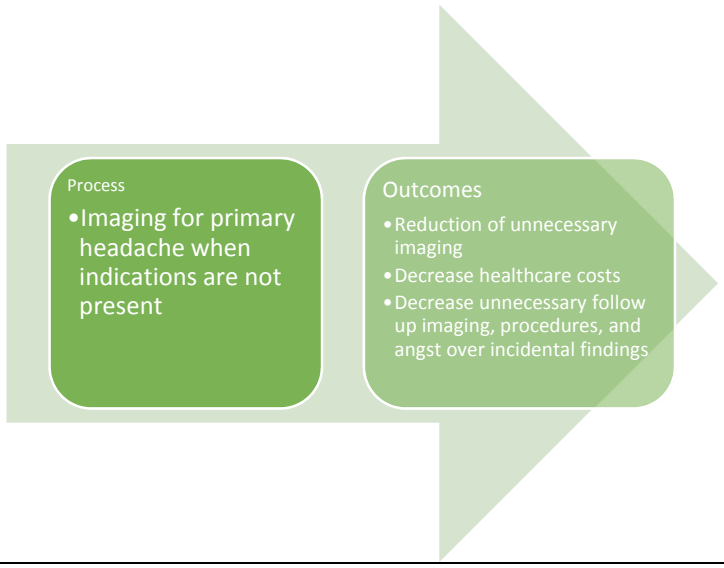
References	1. Harden CL, Pennell PB, Koppel BS et al. Practice Parameter update: Management issues for women with epilepsy – Focus on pregnancy (an evidence-based review): Vitamin K, folic acid, blood levels, and breastfeeding: Report of the Quality Standards Subcommittee and Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology and American Epilepsy Society. Neurology. 2009;73(2):142-149. 2. Harden CL, Meador KJ, Pennell PB, et al. Practice Parameter update: Management issues for women with epilepsy – Focus on pregnancy (an evidence-based review): Teratogenesis and perinatal outcomes: Report of the Quality Standards Subcommittee and Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology and American Epilepsy Society. Neurology. 2009;73(2):133-141. 3. Harden CL, Hopp J, Ting TY, et al. Practice Parameter update: Management issues for women with epilepsy – Focus on pregnancy (an evidence-based review): Obstetrical complications and change in seizure frequency: Report of the Quality Standards Subcommittee and Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology and American Epilepsy Society. Neurology. 2009;73(2):126-132. 4. Viale L, Allotey J, Cheong-See F, et al. Epilepsy in pregnancy and reproductive outcomes: a systematic review and meta-analysis. Lancet 2015; 386: 1845-1852. 5. Herzog AG. Differential impact of antiepileptic drugs on the effects of contraceptive methods on seizures: Interim findings of the epilepsy birth control registry. Seizure 2015; 28:71-75. 6. Herzog AG, Mandle HB, Cahill KE, et al. Contraceptive practices of women with epilepsy: Findings of the epilepsy birth control registry. Epilepsia 2016; 57(4):630-637. 7. Hernández-Díaz S, Smith CR, Shen A, et al., for the North American AED (Antiepileptic Drug) Pregnancy Registry. Comparative Safety of Antiepileptic Drugs during Pregnancy. Neurology 2012;78:1692-1699. 8. Pennell PB. Antiepileptic drugs during pregnancy: what is known and which AEDs seem to be safest? Epilepsia 2008;49(suppl 9):43-55. 9. Espinera AR, Gavvala J, Bellinski I, et al. Counseling by epileptologists affects contraceptive choices of women with epilepsy. Epilepsy Behav 2016;65:1-6. 10. Laganà AS, Triolo O, D'Amico V, et al. Management of women with epilepsy: from preconception to post-partum. Arch Gynecol Obstet 2016;293:493-503. 11. Sabers A. Treatment guidelines: Women of fertile age. Epileptology 2013;1:11-16. 12. Mody SK, Haunschild C, Farala JP, et al. An educational intervention on drug interactions and contraceptive options for epilepsy patients: a pilot randomized controlled trial. Contraception 2016; 93: 77-80. 13. Moura LMVR, Yacaman Mendez D, De Jesus J, et al. Quality care in epilepsy: Women's counseling and its association with folic acid prescription or recommendation. Epilepsy Behav 2015; 44: 151-154. 14. Fitzsimons M, Dunleavy B, O'Byrne P, et al. Assessing the quality of epilepsy care with an electronic patient record. Seizure 2013;22(8):604-610. 15. George IC. How do you treat epilepsy in pregnancy? Neurology Clinical Practice. August 2017. Published online before print. Available at: http://cp.neurology.org/content/early/2017/08/01/CPJ.0000000000000387.full.pdf+html Accessed on August 8, 2017.

Flow Chart Diagram: Counseling for Women of Childbearing Potential with Epilepsy



Code System	Code	Code Description
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
		Gender Female
		Age 12-44 years old
ICD-9	345.00	Generalized nonconvulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.01	Generalized nonconvulsive epilepsy, with intractable epilepsy
ICD-9	345.10	Generalized convulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.11	Generalized convulsive epilepsy, with intractable epilepsy
ICD-9	345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
ICD-9	345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
ICD-9	345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
ICD-9	345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
ICD-9	345.60	Infantile spasms, without mention of intractable epilepsy
ICD-9	345.61	Infantile spasms, with intractable epilepsy
ICD-9	345.70	Epilepsia partialis continua, without mention of intractable epilepsy
ICD-9	345.71	Epilepsia partialis continua, with intractable epilepsy
ICD-9	345.90	Epilepsy, unspecified, without mention of intractable epilepsy
ICD-9	345.91	Epilepsy, unspecified, with intractable epilepsy
ICD-10	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10	G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
ICD-10	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus OR G40.409 Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10	G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10	G40.419	Other generalized
ICD-10	G40.822	Epileptic spasms, not intractable, without status epilepticus
ICD-10	G40.824	Epileptic spasms, intractable, without status epilepticus
ICD-10	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10	G40.919	Epilepsy, unspecified, intractable, without status epilepticus

Measure Title	Overuse of Neuroimaging for Patients With Primary Headache And A Normal Neurological Examination	
Description	Percentage of patients for whom imaging of the head (CT or MRI) is obtained for the evaluation of primary headache when clinical indications are not present	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Nurse (APN)
	Care Setting(s)	Outpatient
	Ages	All patients
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider.
	Diagnosis	Primary headache
Denominator	All patients seen for evaluation of primary headache	
Numerator	Patients for whom imaging of the head (CT or MRI) is obtained for the evaluation of primary headache when clinical indications* are not present during the measurement period **If a clinical indication is present, patient would not meet the measure. Indications that would warrant imaging include: • Head trauma • New or change^ in headache above 50 years of age • Abnormal neurologic exam • Thunderclap headache • Headache radiating to the neck • Trigeminal pain • Persistent and positional headaches • Temporal headaches in patients over 55 years of age • New onset headache in pre-school children or younger (<6 years of age) • New onset headache in pediatric patients with disabilities for which headache is a concern as inferred from behavior • Occipital headache in children ^Change in headache: A significant change in severity of the headache including changes in location or quality. Other criteria take into account most red flag symptoms and also may reflect change (if a stable primary headache were previously present) but do not reflect a previously tolerated headache that now becomes suddenly disabling in severity. Change also includes any and all new symptoms that may be associated with a headache: arm numbness, speech disturbance, etc. To perform well on this measure, we suggest using key phrases: Imaging not recommended, imaging not performed, no clinical indications for imaging	
Required Exclusions	None	
Allowable Exclusions	None	
Exclusion Rationale	N/A	
Measure Scoring	Percentage	

Interpretation of Score	Lower score indicates better quality
Measure Type	Process
Level of Measurement	Provider
Risk Adjustment	N/A
For Process Measures Relationship to Desired Outcome	
Opportunity to Improve Gap in Care	Care for those with headaches amounts to 12 million outpatient office visits and 4 million emergency department visits.[1] Females aged 18-44 had the highest burden with a prevalence of 26.1%.[1] Migraine care alone accounts for approximately $1 billion per year.[2] Additional costs are also accrued through missed work and activities.[2] One analysis indicated that between $146 and $211 million was spent on low-value care by imaging the head.[3] Analyses indicate that the abnormal finding yield for CT is 2% and for MRI is 5%.[4] Providers should be aware that incidental findings on scans can result in patient anxiety. Abnormal findings on images can lead to "practical and ethical dilemmas with regard to management." (SIGN 2008) The Work Group discussed excluding patients who request imaging. It was agreed upon that those patients should be included. The AAN will review any implementation data and the effect this decision had on performance rates, including unintended consequences, when this measure is due for updating in three years.
Harmonization with Existing Measures	This is a variation of the Q-METRIC measure (Available at: https://www.chear.org/qmetric1). A new measure was needed to capture a wider range of ages[4].
References	1. Smitherman TA, Burch R, Loder E. The prevalence, impact, and treatment of migraine and severe headaches in the United States: review of statistics from national surveillance studies. Headache 2013; 53:427-36. 2. Hu X, Markson L, Lipton R, et al. Burden of Migraine in the United States. Arch Intern Med 1999; 159:813-818. 3. Schwartz A, Landon B, Elshaug A, et al. Measuring low-value care in Medicare. JAMA Intern Med 2014; 174:1067-1076.

	4. Medical Advisory Secretariat. Neuroimaging for the Evaluation of Chronic Headaches: an evidence-based analysis. Ont Health Assess Ser. 2010 December; 10(26) 1-57. Supporting Evidence: • Beithon J, Gallenberg M, Johnson K, Kildahl P, Krenik J, Liebow M, Linbo L, Myers C, Peterson S, Schmidt J, Swanson J. Institute for Clinical Systems Improvement. Diagnosis and Treatment of Headache. Updated January 2013. • Scottish Intercollegiate Guidelines Network. Diagnosis and management of headache in adults. A national clinical guideline. 2008. • Douglas A, Wippold F, Broderick D, et al. ACR Appropriateness Use Criteria Headache. J Am Coll Radiol 2014; 11:657-667. • Overuse of Imaging for the Evaluation of Children with Primary Headache. http://chear.org/sites/default/files/stories/pdfs/img2_primaryhd_rt.pdf [Accessed on 8/14/17].

Exercise and Appropriate Physical Activity Counseling for Patients with MS

Measure Description	
Percentage of patients with MS who are counseled* on the benefits of exercise and appropriate physical activity for patients with MS in the past 12 months.	
Measure Components	
Numerator Statement	Patients with MS counseled* on the benefits of exercise and appropriate physical activity for patients with MS in past 12 months. *Counseled: to advise seriously and formally after consultation[1]
Denominator Statement	All patients with a diagnosis of MS.
Denominator Exceptions	None** **All patients including those unable to exercise should be provided information on appropriate range of motion and activity.
Supporting Guideline & Other References	The following evidence statements are quoted verbatim from the referenced clinical guidelines: • "Evidence-based treatment interventions for mobility optimization include exercise promotion (Level 1)."[2] • "Encourage participation in a regular pattern of exercise to improve mood (Level 1)."[2] • "Encourage people with MS to exercise. Advise them that regular exercise may have beneficial effects on their MS and does not have any harmful effects on their MS."[3] • "Ensure all people with MS have a comprehensive review of all aspects of their care at least once a year."[3] • "Tailor the comprehensive review to the needs of the person with MS assessing: General health: …exercise…"[3]
Measure Importance	
Relationship to Desired Outcome	Increased rates of physical activity and exercise improve the physical functioning levels and quality of life for patients with MS.[4]
Opportunity for Improvement	Despite known benefits of exercise and physical activity, persons with MS remain inactive.[5,6] The Work Group encourages referral to rehabilitation services, including physical therapy, when clinically appropriate given the evidence supporting improved outcomes for patients.[7-9]
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not Applicable
Harmonization with Existing Measures	There are currently not comparable measures in national measurement programs or endorsed by the National Quality Forum.
Measure Designation	

Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒Process ☐ Outcome ☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System or Health Plan
Care Setting (Check all that apply)	☒ Outpatient ☐ Inpatient ☐ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

References

[1] Merriam Webster. Available at: http://www.merriam-webster.com/medical/counsel

[2] American Association of Neuroscience Nurses (AANN), Association of Rehabilitation Nurses (ARN), International Organization of Multiple Sclerosis Nurses (IOMSN). Nursing management of the patient with multiple sclerosis. Glenview (IL): American Association of Neuroscience Nurses (AANN); 2011. 49 p.

[3] National Institute for Health and Care Excellence. Multiple sclerosis: management of multiple sclerosis in primary and secondary care. NICE Clinical Guideline 186. October 2014.

[4] American College of Sports Medicine: ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription, 6th edition edn. Baltimore, MD: Lippincott Williams & Wilkins; 2010.

[5] Mayo NE, Bayley M, Duquette P, et. Al. The role of exercise in modifying outcomes for people with multiple sclerosis: a randomized trial. BMC Neurology 2013;13:69.

[6] Motl RW, McAuley E, Snook EM. Physical activity and multiple sclerosis: a meta-analysis. Mult Scler 2005; 11(4):459-463.

[7] Khan F, Turner-Stokes L, Ng L, et al. Multidisciplinary rehabilitation for adults with multiple sclerosis. Cochrane Database of Systematic Reviews 2007, Issue 2. Art. No.: CD006036.

[8] Rietberg MB, Brooks D, Uitdehaag BMJ, Kwakkel G. Exercise therapy for multiple sclerosis. Cochrane Database of Systematic Reviews 2004, Issue 3. Art. No.: CD003980.

9 Döring A, Caspar FP, Friedemann P, et al. Exercise in multiple sclerosis – an integral component of disease management. The EPMA Journal 2012;3:2-13.

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the MS measures will be made available at a later date.

Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.

Denominator (Eligible Population)	ICD-9 Code 340 Multiple Sclerosis	ICD-10 Code G35 Multiple Sclerosis Disseminated multiple sclerosis Generalized multiple sclerosis Multiple sclerosis NOS Multiple sclerosis of brain stem Multiple sclerosis of cord
	AND CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient); 99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient); 99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 97001 (Physical therapy evaluation); 97002 (Physical therapy re-evaluation); 97003 (Occupational therapy evaluation); 97004 (Occupational therapy re-evaluation)	

Measure Title	Overuse of barbiturate and opioid containing medications for primary headache disorders	
Description	Percentage of patients age 12 years and older with a diagnosis of primary headache who were prescribed opioid or barbiturate containing medications assessed for medication overuse headache within the 12-month measurement period, and if identified as overusing opioid or barbiturate containing medication, treated or referred for treatment.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Inpatient, ED or Urgent Care
	Ages	12 years and older
	Event	Patient had an office visit, Patient had and inpatient visit, patient had an ED or Urgent care visit, E/M services performed or supervised by an eligible provider
	Diagnosis	Primary headache
Denominator	All patients aged 12 years and older diagnosed with a primary headache disorder and prescribed an opioid or barbiturate containing medication	
Numerator	Patients assessed for opioid^ or barbiturate* containing medication overuse headache within the 12-month measurement period, and if barbiturate or opioid medication overuse headache is identified, treatment or referral for treatment was provided. ^ Opioid overuse is defined as any prescription for an opioid containing medication for $\geq$ 10 days/month for > 3 months during the measurement period. * Barbiturate overuse is defined as any prescription for a barbiturate containing medication for the treatment of primary headache during the measurement period.	
Required Exclusions	None	
Allowable Exclusions (formerly exceptions)	• Medical exception for not assessing, treating, or referring patient for treatment of opioid or barbiturate medication overuse (i.e., patient already assessed and treated for opioid use disorder within the last year; patient has a documented failure of non-opioid options and does not have an opioid use disorder; patient has contraindications to all other medications for primary headache).	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Individual provider, Practice, System	
Risk Adjustment	Not Applicable	
Opportunity to Improve Gap in Care	Using the recommended first-line treatments for migraine would provide superior pain relief for migraine sufferers and reduce overuse of chronic daily headaches. **Gap in Care** Triptans and ergots are considered first line acute treatments for migraine, not opioids or barbiturates by the US Headache Consortium Guideline.1 However, barbiturates or butalbital containing agents are prescribed frequently. The use of barbiturates increases the risk of chronic daily headache and drug induced hyperalgesia.2 One study noted that barbiturate or opioid class of medicine is	

	more likely to be overused among those patients presenting to a tertiary headache center (overused substances: Butalbital containing combination products, 48%; Acetaminophen, 46.2%; Opioids, 33.3%; ASA, 32.0%; Ergotamine tartrate, 11.8%; Sumatriptan, 10.7%; Nonsteroidal anti-inflammatory medications other than ASA, 9.8%; Zolmitriptan, 4.6%; Rizatriptan, 1.9%; Naratriptan, 0.6%. Total of all triptans, 17.8%).1 **Opportunity for Improvement** By reducing the use of barbiturate for primary headache disorders there is potential to decrease chronic daily headaches, improve quality of life and reduce headache associated disability. References 1-4.
Harmonization with Existing Measures	No known similar measures.
References	1. National Institute for Health and Clinical Excellence (NICE) Headaches: Diagnosis and management of headaches in young people and adults. National Clinical Guideline Centre on behalf of the National Institute for Health and Clinical Excellence (NICE) September 2012; NICE clinical guideline 150 2. Lander-Gould A, Anderson W, Armstrong M et al. The American Academy of Neurology's Top Five Choosing Wisely recommendations. *Neurology* 2013; Published online before print February 20, 2013, doi: 10.1212/WNL.0b013e31828aab14 *Neurology* 10.1212/WNL.0b013e31828aab14 3. Bigal ME, Serano D, Buse D, et al Acute migraine medications and evolution from episodic to chronic migraine: a longitudinal population-based study *Headache.* 2008; 48(8):1157-68 4. Silberstein SD. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2000 26;55(6):754-62 (Updated in 2012 by the AAN) 5. Matchar DB, Young WB, Rosenerg J, et al. Multispecialty consensus on diagnosis and treatment of headache: pharmacological management of acute attacks. Available at http://www.aan.com/professionals/practice/pdfs/gl0087.pdf (accessed November 2008 6. Lipton RB, Buse DC, Serrano D et al. Examination of Unmet Treatment Needs Among Persons With Episodic Migraine: Results of the American Migraine Prevalence and Prevention (AMPP) Study. *Headache.* 2013 Jul 23. doi: 10.1111/head.12154. [Epub ahead of print] 7. Bigal ME, Serrano D, Buse D, et al. Acute migraine medications and evolution from episodic to chronic migraine: a longitudinal population-based study. *Headache.* 2008 Sep;48(8):1157-68. doi: 10.1111/j.1526-4610.2008.01217.x. 8. Buse DC, Pearlman SH, Reed ML et al. Opioid Use and Dependence among Persons with Migraine: Results of the AMPP Study Headache: *The Journal of Head and Face Pain* Volume 52, Issue 1, pages 18–36, January 2012

Code System	Code	Code Description

ICD-10	G43	Migraine
	G43.1	Migraine with aura
	G43.109	Migraine with aura, not intractable, without status migrainosus
	G43.119	Migraine with aura, intractable, without status migrainosus
	G43.101	Migraine with aura, not intractable with status migrainosus
	G43.111	Migraine with aura, intractable with status migrainosus
	G43.0	Migraine without aura
	G43.009	Migraine without aura, not intractable without status migrainosus
	G43.019	Migraine without aura, intractable without status migrainosus
	G43.001	Migraine without aura, not intractable with status migrainosus
	G43.011	Migraine without aura, intractable without status migrainosus
	G43.9	Migraine, unspecified
	G43.909	Migraine, unspecified, not intractable without status migrainosus
	G43.919	Migraine, unspecified, intractable without status migrainosus
	G43.901	Migraine, unspecified, not intractable with status migrainosus
	G43.911	Migraine, unspecified, intractable with status migrainosus
	G43.4	Hemiplegic migraine
	G43.409	Hemiplegic migraine, not intractable without status migrainosus
	G43.419	Hemiplegic migraine, intractable without status migrainosus
	G43.401	Hemiplegic migraine, not intractable, with status migrainosus
	G43.411	Hemiplegic migraine, intractable with status migrainosus
	G43.8	Other migraine
	G43.829	Menstrual migraine, not intractable without status migrainosus
	G43.839	Menstrual migraine, intractable without status migrainosus
	G43.821	Menstrual migraine, not intractable with status migrainosus
	G43.831	Menstrual migraine, intractable with status migrainosus
	G43.5	Persistent migraine aura without cerebral infarction
	G43.509	Persistent migraine aura without cerebral infarction, not intractable without status migrainosus
	G43.519	Persistent migraine aura without cerebral infarction, intractable without status migrainosus
	G43.501	Persistent migraine aura without cerebral infarction, not intractable with status migrainosus
	G43.511	Persistent migraine aura without cerebral infarction, intractable with status migrainosus
	G43.6	Persistent migraine aura with cerebral infarction
	G43.609	Persistent migraine aura with cerebral infarction, not intractable without status migrainosus

	G43.619	Persistent migraine aura with cerebral infarction, intractable without status migrainosus
	G43.601	Persistent migraine aura with cerebral infarction, not intractable with status migrainosus
	G43.611	Persistent migraine aura with cerebral infarction, intractable with status migrainosus
	G43.7	Chronic migraine without aura
	G43.709	Chronic migraine without aura, not intractable without status migrainosus
	G43.719	Chronic migraine without aura, intractable without status migrainosus
	G43.701	Chronic migraine without aura, not intractable with status migrainosus
	G43.711	Chronic migraine without aura, intractable with status migrainosus
	G44.1	Vascular headache, not elsewhere classified
	R51	Headache
	G44.209	Tension-type headache, unspecified, not intractable
	G44.009	Cluster headache syndrome, unspecified, not intractable
	G44.019	Episodic cluster headache, not intractable
	G44.029	Chronic cluster headache, not intractable
	G44.039	Episodic paroxysmal hemicrania, not intractable
	G44.049	Chronic paroxysmal hemicrania, not intractable
	G44.059	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), not intractable
	G44.099	Other trigeminal autonomic cephalgias (TAC), not intractable
	G44.209	Tension-type headache, unspecified, not intractable
	G44.219	Episodic tension-type headache, not intractable
	G44.221	Chronic tension-type headache, intractable
	G44.229	Chronic tension-type headache, not intractable
	G44.51	Hemicrania continua
	G44.52	New daily persistent headache
	G44.53	Primary cough headache
	G44.84	Primary exertional headache
	G44.85	Primary stabbing headache
	G44.89	Other headache syndrome
CPT	99201-99205	Office or other outpatient visit, New Patient
CPT	99211-99215	Office or other outpatient visit, Established Patient
CPT	99241-245	Office or other outpatient consultation, new or established patient
CPT	99221-99223	Initial hospital care
CPT	99231-99233	Subsequent hospital care
CPT	99338-99339	Hospital discharge
CPT	99251-99255	Initial inpatient consultation
CPT	99281-99285	Emergency department visit

Cognitive Impairment or Dysfunction Assessment for Patients with Parkinson's Disease

Measure Description	
Percentage of all patients with a diagnosis of PD who were assessed* for cognitive impairment or dysfunction in the past 12 months.	
Measure Components	
Numerator Statement	All patients with a diagnosis of PD who were assessed* for cognitive impairment or dysfunction in the past 12 months. *Assessed is defined as use of a screening tool or referral to neuropsychologist for testing. Screening tools approved for use in this measure include:(1) • Mini-Mental Status Examination (MMSE)(2,3) • Montreal Cognitive Assessment (MoCA)(2,3) • Dementia Rating Scale (DRS-2) • Parkinson's Disease Dementia – Short Screen (PDD-SS) • Parkinson Neuropsychiatric Dementia Assessment (PANDA) • Parkinson's Disease- Cognitive Rating Scale (PD-CRS) • Scales for Outcomes of Parkinson's Disease – Cognition (SCOPA-Cog)
Denominator Statement	All patients with a diagnosis of PD.
Denominator Exceptions	None
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • The Mini-Mental State Examination (MMSE) and the Cambridge Cognitive Examination (CAM Cog) should be considered as screening tools for dementia in patients with PD (Level B).(4) • An assessment of neuropsychological functioning in a person presenting with parkinsonism suspected of being PD is recommended (Level A) and should include: (I) A collateral history from a reliable carer (II) A brief assessment of cognition (III) Screening for a rapid eye movement (REM) sleep behavior disorder (RBD), psychotic manifestations and severe depression.(5) • Clinical history should be supplemented by an informant (GPP). A neurological and general physical examination should be performed in all patients with dementia (GPP).(6) • Cognitive assessment is central to diagnosis and management of dementias and should be performed in all patients (Level A). Screening tests are available of good accuracy in the general diagnosis of dementia or have been proposed specifically for the differential diagnosis between the different forms of dementia (GPP). Neuropsychological assessment should be performed in all patients in the early stages of the disease (Level B) when the

	cognitive impairment reflects the disruption of specific brain structures. The neuropsychological assessment should include a global cognitive measure and, in addition, more detailed testing of the main cognitive domains including memory, executive functions and instrumental functions (Level C).(6) • The general practitioner knows the cognitive-behavioral profile of his/her patients and can identify the clinical signs of cognitive decay at their onset, taking also into account the observation of relatives (I/A).(7) • General practitioners should assess all pathological conditions that could cause cognitive disorders (VI/A).(7) • In raising the diagnostic hypothesis of dementia, general practitioners should assess the presence of co-morbidities and identify risk factors due to social isolation (VI/A).(7)
Measure Importance	
Relationship to Desired Outcome	Cognitive functioning impacts life satisfaction and health-related quality of life. It is anticipated that if assessed on an ongoing basis, cognitive deficits may be identified and addressed in a timely manner. Once identified, such deficits could be treated (or patients referred to appropriate resources) and thereby improve individuals quality of life.
Opportunity for Improvement	Patients with PD were found to have an incidence rate of dementia that increased 4-6 times compared to age-matched controls.(6) Dementia was found to be present in 83% of 20-year survivors of PD.(7) In a 2013 study by Baek et al. reviewing compliance with quality measure recommendations, it was noted provider compliance rate for annual review of cognitive dysfunction was 32%.(8) This measure was adopted into the PQRS reporting system as measure #291 in 2012. Eligible provider compliance rates for 2012 are not available.
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not Applicable
Harmonization with Existing Measures	Not Applicable
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability

Type of Measure (Check all that apply)	☒Process ☐ Outcome ☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System
Care Setting (Check all that apply)	☒ Outpatient ☒ Inpatient ☒ Skilled Nursing Home ☐ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

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Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the PD measures will be made available at a later date.

Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.

Denominator (Eligible Population)	ICD-9 Code: 332.0 (Paralysis agitans) ICD-10 Code: G20 Parkinson's Disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease AND CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient); 99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient); 99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 99304, 99305, 99306, 99307, 99308, 99309, 99310 (Nursing Home Consultation); 99221-99223 (Initial Hospital Care); 99231-99233 (Subsequent Hospital Care); 99238-99239 (Hospital Discharge); 99251-99255 (Initial Inpatient Consultation).

Parkinson's Disease Rehabilitative Therapy Options

Measure Description	
Percentage of all patients with a diagnosis of PD (or caregiver(s), as appropriate) who had rehabilitative therapy options (i.e., physical, occupational, and speech therapy) discussed in the past 12 months.	
Measure Components	
Numerator Statement	All patients with a diagnosis of PD (or caregiver(s), as appropriate) who had rehabilitative therapy options (i.e., physical, occupational, and speech therapy) discussed in the past 12 months.
Denominator Statement	All patients with a diagnosis of Parkinson's disease.
Denominator Exceptions	None
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • Physiotherapy should be available for people with PD. Particular consideration should be given to: - gait re-education, improvement of balance and flexibility; enhancement of aerobic capacity; improvement of movement initiation; improvement of functional independence, including mobility and activities of daily living; - provision of advice regarding safety in the home environment. (Level B)(1) • Occupational therapy should be available for people with PD. Particular consideration should be given to: - maintenance of work and family roles, home care and leisure activities; improvement and maintenance of transfers and mobility; improvement of personal self-care activities, such as eating, drinking, washing, and dressing; cognitive assessment and appropriate intervention. (Level D)(1) • Speech and language therapy should be available for people with PD. Particular consideration should be given to: -Improvement of vocal loudness and pitch range, including speech therapy programs such as Lee Silverman Voice Treatment (LSVT) (Level B)(1) • For patients with Parkinson's disease complicated by dysarthria, speech therapy may be considered to improve speech volume (Level C). Different exercise modalities, including multidisciplinary rehabilitation, active music therapy, treadmill training, balance training, and "cued" exercise training are probably effective in improving functional outcomes for patients with Parkinson's disease. For patients with Parkinson's disease, exercise therapy may be considered to improve function (Level C).(2) • The results of this systematic review have suggested that progressive resistance exercise can be effective and worthwhile in people with mild to moderate Parkinson's disease, but carryover of these

	benefits may not occur in all measures of physical performance. We recommend that progressive resistance exercise should be implemented into clinical practice as a therapy for Parkinson's disease, particularly when the aim is improving walking capacity in such people.(3)
Measure Importance	
Relationship to Desired Outcome	PD causes progressive motor impairment and non-motor impairment affecting quality of life. Rehabilitative Therapy may positively influence the quality of life of patients with Parkinson Disease addressing symptoms.
Opportunity for Improvement	There is growing evidence that rehabilitative therapy are effective in improving motor impairment, activities of daily living, and quality of life in PD throughout all stages.(4-7) As many as 89% of patients with PD suffer from speech disorders, but studies suggest only 3-4% of people receive treatment.(8) A Cochrane Review indicated that there was insufficient evidence to support the use of one speech and language therapy over another treatment for speech problems.(9) In a 2013 study by Baek reviewing compliance with quality measure recommendations, it was noted provider compliance rate for annual review of rehabilitative therapy options was 7.5% indicating missed opportunities to offer potentially positive interventions to this population.(10) This measure was adopted into the PQRS reporting system as measure #293 in 2012. Eligible provider compliance rates for 2012 are not available. Patients should be referred to therapy programs specific to patients with PD if available in their area.
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not Applicable
Harmonization with Existing Measures	Not Applicable
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure	☒Process ☐ Outcome

(Check all that apply)	☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System
Care Setting (Check all that apply)	☒ Outpatient ☐ Inpatient ☒ Skilled Nursing Home ☐ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

References

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10. Baek WS, Swenseid SS, Poon KT. Quality Care Assessment of Parkinson's Disease at a Tertiary Medical Center. International Journal of Neuroscience 2013;123(4):221-225.

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the PD measures will be made available at a later date.

Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or

paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.	
Denominator (Eligible Population)	ICD-9 Code 332.0 (Paralysis agitans) ICD-10 Code G20 Parkinson's Disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease AND CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient); 99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient); 99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 99304, 99305, 99306, 99307, 99308, 99309, 99310 (Nursing Home Consultation).

Education and Support of Caregivers for Patients with Dementia

The numerator definition has been updated with greater specificity below. The use of a finite list of tools to meet the measure is required for data collection through a registry and in accountability programs, such as CMS' Merit-based Incentive Payment System (MIPS). The key phrases are provided to allow leeway in meeting the measure through a structured interview. Exceptions were added to address the measure intent.

Numerator Statement	Patients with dementia whose caregiver(s) were provided with education on dementia disease management and health behavior changes AND were referred to additional resources** for support in the last 12 months. * "Caregiver" is broadly defined and the Work Group adopted the definition utilized by the National Quality Forum and Feinberg.(1) Caregiver refers to any relative, partner, friend, or neighbor who has a significant relationship with, and who provides a broad range of assistance for, an older adult or an adult with chronic or disabling conditions.(1) ** "Education" requires learning and processing information about disease management and health behavior changes. This should also include advising the caregiver that, *as a caregiver*, he or she is at "increased risk of serious illness (including circulatory and heart conditions and respiratory disease and hypertension), increased physician visits and use of prescription medications, emotional strain, anxiety, and depression."(2) Providers are encouraged to review state specific guidelines to ensure education is being provided as required. Examples of key phrases required to meet the measure's education on dementia disease management and health behavior changes via a registry follow: • "Caregiver/spouse/family education resources" • "Caregiver/spouse/family provided with education" • "Education/counseling and coordination of care" • "Disease education" • "Disease management and health behavior changes" • "Caregiver/spouse/family education" • "Caregiver/spouse/family anxiety" • "Caregiver/spouse/family depression" • "Caregiver/spouse/family education resources" • "Caregiver/spouse/family training" • "Caregiver/spouse/family counseling" • "Caregiver/spouse/family exhaustion" • "Caregiver/spouse/family distress" • "Caregiver/spouse/family burnout" • "Caregiver/spouse/family burden" • "Emotional strain" • "Increased risk to caregiver"

	*** "Additional Resources" are defined as situation-specific, tailored programs to assist the caregiver; these included national organizations such as the Alzheimer's Association, but also include local resources, such as community, senior center and religion-based support groups. Examples of key phrases required to meet the measure's referral to additional resources via a registry follow: • "Referral to Alzheimer's Association" • "Referred to the Alzheimer's Association" • "Referral to community resources" • "Referred to community resources" • "Referral to support group" • "Referred to support group" • "Support groups and resources are available through the Alzheimer's Association" • "Referred to additional resources" • "Support and resources from the Alzheimer's Association" • "Alzheimer's Association provides educational and support groups" The following key phrase could be used via a registry to meet both measure requirements, education and referral: • "Caregiver/spouse/family education resources" • "Caregiver/spouse/family education and referral to community resources" • "Caregiver/spouse/family education and referral to Alzheimer's Association" • "Caregiver/spouse/family education and referral for anxiety" • "Caregiver/spouse/family education and referral for depression"
Denominator Statement	All patients with dementia. Diagnostic codes listed in Appendix A.
Denominator Exceptions	• Patient does not have a caregiver. • Caregiver is trained and certified in dementia care. • Patient/caregiver dyad has been referred to appropriate resources and connection to those resources confirmed. Examples of key phrases required to identify these exceptions via a registry follow: • "Caregiver/spouse/family connected with existing supports" • "Caregiver is trained and certified in dementia care" • "No caregiver identified" • "Patient does not have a caregiver" • "has been referred to appropriate resources and connection to those resources confirmed" • "Trained and certified caregivers"

Appendix A: 2018 Diagnostic Codes

In 2018, the AAN and APA seated a small group of technical experts to improve the feasibility of data collection and to address a coding issue identified during implementation. The below codes reflect the 2018 update to the diagnostic codes. The sole changes made were the removal of Parkinson's disease (ICD-9 332.0 and ICD-10 G20) and Human immunodeficiency virus [HIV] disease (ICD-9 042 and ICD-10 B20) from the eligible population.

ICD-9	ICD-10
290.0 Senile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.10 Presenile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.12 Presenile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.13 Presenile dementia with depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS

	presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (Comm)
290.20 Senile dementia with delusional or depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.21 Senile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.40 Vascular dementia, uncomplicated *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.50 Vascular dementia without behavioral disturbance Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.42 Vascular dementia with delusions *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*

290.43 Vascular dementia with depressed mood *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
291.2 Alcohol-induced persisting dementia	F10.27 Alcohol dependence with alcohol-induced persisting dementia
294.10 Dementia in conditions classified elsewhere without behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.80 Dementia in other diseases classified elsewhere, without behavioral disturbance Dementia in other diseases classified elsewhere not otherwise specified *Code first the underlying physiologic condition*
294.11 Dementia in conditions classified elsewhere with behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.81 Dementia in other diseases classified elsewhere, with behavioral disturbance Dementia in other diseases classified elsewhere with aggressive behavior Dementia in other diseases classified elsewhere with combative behavior Dementia in other diseases classified elsewhere with violent behavior *Code first the underlying physiologic condition*
294.20 Dementia, unspecified, without behavioral disturbance Dementia, not otherwise specified	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
294.21 Dementia, unspecified, with behavioral disturbance	F03.91 Unspecified dementia with behavioral disturbance Unspecified dementia with aggressive behavior Unspecified dementia with combative behavior Unspecified dementia with violent behavior
331.0 Alzheimer's disease *Use additional code, where applicable, to identify dementia:* with behavioral disturbance (294.11) without behavioral disturbance (294.10)	G30.0 Alzheimer's disease with early onset G30.1 Alzheimer's disease with late onset G30.8 Other Alzheimer's disease G30.9 Alzheimer's disease, unspecified *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.11 Pick's disease	G31.01 Pick's disease Circumscribed brain atrophy Progressive isolated aphasia *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.19 Other frontotemporal dementia	G31.09 Other frontotemporal dementia
331.6 Corticobasal degeneration	G31.85 Corticobasal degeneration

331.7 Cerebral degeneration in diseases classified elsewhere. *Code first underlying disease*	G94 Other disorders of brain in diseases classified elsewhere *Code first underlying disease*
331.82 Dementia with Lewy bodies	G31.83 Dementia with Lewy bodies Dementia with Parkinsonism Lewy body dementia Lewy body disease
331.89 Other cerebral degeneration, Other (Corticobasal degeneration)	G31.89 Other specified degenerative diseases of nervous system
094.1 Neurosyphilis, General Paresis Dementia Paralytica *Use additional code to identify associated mental disorder*	A52.17 General paresis Dementia paralytica
046.11 Variant Creutzfeld-Jacob disease vCJD *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)* 046.19 Other and unspecified Creutzfeld-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)*	A81.00 Creutzfeldt-Jacob disease, unspecified A81.01 Variant Creutzfeldt-Jacob disease vCJD A81.89 Other Creutzfeldt-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy (with dementia)

Safety Concern Screening and Follow-up for Patients with Dementia

The numerator definition has been updated with greater specificity below. The use of a finite list of tools to meet the measure is required for data collection through a registry and in accountability programs, such as CMS' Merit-based Incentive Payment System (MIPS). The key phrases are provided to allow leeway in meeting the measure through a structured interview.

<table>
<tr><th colspan="2">Measure Components</th></tr>
<tr><td>Numerator Statement</td><td>Patients with dementia or their caregiver(s) for whom there was a documented safety screening * in two domains of risk: 1) dangerousness to self or others and 2) environmental risks; and if screening was positive in the last 12 months, there was documentation of mitigation recommendations, including but not limited to referral to other resources.

To meet measure requirements a patient's medical record must have documentation of being screened on at least one concern from each of the two domains. Examples of key phrases required to meet the measure via a registry follow each domain:
Dangerousness to self (patient) or others (caregivers and other individuals)
• Medication misuse
o "Medication misuse"
o "Rx mismanagement"
o "Missing medications"
• Physical aggressiveness
o "Physical aggressiveness"
o "Violent behavior"
o "Acts of aggression"
• Wandering
o "Wandering"
o "Got lost"
o "Disoriented in home"
• Inability to respond rapidly to crisis/household emergencies
o "Inability to respond rapidly to crisis/household emergencies"
o "Unprepared for emergency"
o "Unprepared for crisis"
o "Unable to respond rapidly to emergency"
o "Unable to respond rapidly to crisis"
o "Unable to address crisis"
o "Unable to address emergency"
• Financial mismanagement, including being involved in "scams"
o "Financial mismanagement"
o "Unable to balance checkbook"
o "Financial concerns identified"
o "Scams"
o "Victim of scam"
• Other concerns raised by patient or their caregiver
o "Discussed other safety concerns"
Environmental risks (must document at least one example phrase)
• Home safety risks that could arise from cooking or smoking
o "Home safety risks that could arise from cooking or smoking"
o "Risks from cooking"
o "Risks from smoking"</td></tr>
</table>

	• Access to firearms or other weapons
	  ○ "Access to firearms or other weapons"
	  ○ "Access to guns"
	  ○ "Access to firearms"
	  ○ "Access to knives"
	  ○ "Access to weapons"
	• Access to potentially dangerous chemicals and other materials
	  ○ "Access to potentially dangerous chemical and other materials"
	  ○ "Access to chemicals"
	  ○ "Access to potentially dangerous materials"
	• Access to and operation of tools and equipment
	  ○ "Access to and operation of tools"
	  ○ "Access to and operation of vehicle"
	  ○ "Access to and operation of equipment"
	• Trip hazards in the home increasing the risk of falling
	  ○ "Trip hazards in the home increasing the risk of falling"
	  ○ "Trip hazards"
	  ○ "Fall due to trip on loose carpet"
	• Other concerns raised by patient or their caregiver
	  ○ "Discussed other safety concerns"
	
	If following screening there are no safety concerns identified, document one of the example key phrases:
	• "No safety concerns"
	• "Safety concerns screen negative"
	• "Safety concerns screen provided and negative"
	
	Mitigation Recommendations
	• "Recommended personal companion"
	• "Personal companion suggested"
	• "Adequate lighting assessment"
	• "Advised to consider purchase of pill organizer"
	• "Advised to consider purchase of pill dispenser"
	• "Advised to purchase pill organizer"
	• "Advised to purchase pill dispenser"
	• "Alternate fire alarm systems"
	• "Avoid yelling"
	• "Avoiding restraint"
	• "Avoiding force"
	• "Being aware of caregiver stress"
	• "Black mat in front of door"
	• "Change banking mailing contact"
	• "Clear walking paths inside home"
	• "Clear walking paths inside the home"
	• "Attend day care"
	• "Start adult day program"
	• "Decrease clutter"
	• "Discussed wandering and physical measures"
	• "Discussed wandering and counter measures"

	• "Durable POA" • "Establish POA" • "Power of attorney" • "Encouraged locks" • "Evaluated causes of discomfort leading to aggression" • "Fence or hedge" • "Fire starting materials removed" • "Remove firearms" • "Gathering financial documents and securing" • "Implementation of sleep schedule" • "Importance of providing clear easy to understand instructions" • "Improve visual cues" • "Planned for emergencies" • "Install fence" • "Install hedge" • "Secured lighters" • "Removed lighters" • "Secured matches" • "Secured lighters" • "Locks obtained" • "Lower noise levels" • "Medication safety" • "Monitor phone calls and emails for possible scammers" • "Move important things to one location" • "Placing reminders in common places" • "Placing tools in secured location" • "Providing activity to keep hands busy" • "Recommended family evaluate video surveillance" • "Recommended family evaluate GPS" • "Recommended family evaluate Safe Return program" • "Reduce financial and paper clutter" • "Reducing the number of questions asked at one time" • "Reduction of excessive stimulation in environment" • "Rehabilitative measures suggested" • "Remove/removing guns or lock them up" • "Remove/removing weapons" • "Remove/removing chemicals" • "Remove/removing cigarettes" • "Remove/removing gas" • "Remove/removing hazards" • "Remove/removing keys from equipment" • "Remove/removing knobs" • "Remove/removing/locking up firearms" • "Remove/removing sharp objects" • "Remove/removing tools" • "Risk mitigation strategies" • "Ruled out pain as cause" • "Ammunition stored separate"

	• "Safety slippers" • "schedule modification" • "Secure banking passwords" • "Sell guns" • "Sell weapons" • "Storing chemicals out of reach" • "Suggested stop cooking" • "Strategies to reduce physical aggression" • "Suggested moving in with…" • "Talk with financial advisor" • "Discussed removing hazards" • "Trying something different to diffuse situation" • "Use of music" • "Velcro shoes" • "Walking exercise to soothe"
Denominator Statement	All patients with dementia. Diagnostic codes listed in Appendix A.
Denominator Exceptions	Patient unable to communicate and informant not available. Key phrases are suggested for: • "Unable to communicate and informant not available" • "Unable to communicate and no knowledgeable informant available" • "Unable to communicate and no caregiver available"

Appendix A: 2018 Diagnostic Codes

In 2018, the AAN and APA seated a small group of technical experts to improve the feasibility of data collection and to address a coding issue identified during implementation. The below codes reflect the 2018 update to the diagnostic codes. The sole changes made were the removal of Parkinson's disease (ICD-9 332.0 and ICD-10 G20) and Human immunodeficiency virus [HIV] disease (ICD-9 042 and ICD-10 B20) from the eligible population.

ICD-9	ICD-10
290.0 Senile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.10 Presenile dementia, uncomplicated	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS

	Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.12 Presenile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.13 Presenile dementia with depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (Comm)
290.20 Senile dementia with delusional or depressive features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05) F05 Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology

	Delirium superimposed on dementia Sundowning *Code first the underlying physiological condition* Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921)
290.21 Senile dementia with delusional features	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
290.40 Vascular dementia, uncomplicated *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.50 Vascular dementia without behavioral disturbance Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.42 Vascular dementia with delusions *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
290.43 Vascular dementia with depressed mood *Use additional code to identify cerebral atherosclerosis (437.0) or other condition resulting in this diagnosis*	F01.51 Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia *Code first the underlying physiological condition or sequelae of cerebrovascular disease*
291.2 Alcohol-induced persisting dementia	F10.27 Alcohol dependence with alcohol-induced persisting dementia
294.10 Dementia in conditions classified elsewhere without behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.80 Dementia in other diseases classified elsewhere, without behavioral disturbance Dementia in other diseases classified elsewhere not otherwise specified *Code first the underlying physiologic condition*
294.11 Dementia in conditions classified elsewhere with behavioral disturbance *Code first the underlying condition*	F02.2 Dementia in Huntington Disease F02.3 Dementia in Parkinson's Disease F02.81 Dementia in other diseases classified elsewhere, with behavioral disturbance Dementia in other diseases classified elsewhere with aggressive behavior Dementia in other diseases classified elsewhere with combative behavior Dementia in other diseases classified elsewhere with violent behavior *Code first the underlying physiologic condition*
294.20 Dementia, unspecified, without behavioral disturbance Dementia, not otherwise specified	F03.90 Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS

	senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
294.21 Dementia, unspecified, with behavioral disturbance	F03.91 Unspecified dementia with behavioral disturbance Unspecified dementia with aggressive behavior Unspecified dementia with combative behavior Unspecified dementia with violent behavior
331.0 Alzheimer's disease *Use additional code, where applicable, to identify dementia:* with behavioral disturbance (294.11) without behavioral disturbance (294.10)	G30.0 Alzheimer's disease with early onset G30.1 Alzheimer's disease with late onset G30.8 Other Alzheimer's disease G30.9 Alzheimer's disease, unspecified *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.11 Pick's disease	G31.01 Pick's disease Circumscribed brain atrophy Progressive isolated aphasia *Use additional code to identify*: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
331.19 Other frontotemporal dementia	G31.09 Other frontotemporal dementia
331.6 Corticobasal degeneration	G31.85 Corticobasal degeneration
331.7 Cerebral degeneration in diseases classified elsewhere. *Code first underlying disease*	G94 Other disorders of brain in diseases classified elsewhere *Code first underlying disease*
331.82 Dementia with Lewy bodies	G31.83 Dementia with Lewy bodies Dementia with Parkinsonism Lewy body dementia Lewy body disease
331.89 Other cerebral degeneration, Other (Corticobasal degeneration)	G31.89 Other specified degenerative diseases of nervous system
094.1 Neurosyphilis, General Paresis Dementia Paralytica *Use additional code to identify associated mental disorder*	A52.17 General paresis Dementia paralytica
046.11 Variant Creutzfeld-Jacob disease vCJD *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)* 046.19 Other and unspecified Creutzfeld-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease	A81.00 Creutzfeldt-Jacob disease, unspecified A81.01 Variant Creutzfeldt-Jacob disease vCJD A81.89 Other Creutzfeldt-Jacob disease CJD Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy (with dementia)

Subacute spongioform encephalopathy *Use additional code to identify dementia:* *with behavioral disturbance (294.11)* *without behavioral disturbance (294.12)*	

First line treatment for infantile spasms

Measure Description	
Percentage of patients receiving appropriate first line treatment for infantile spasms (IS)	
Measure Components	
Numerator Statement	Patients who received any guideline recommended first line therapy* as initial treatment for IS as soon as diagnosed, but no later than 1 week after initial, confirmed diagnosis** *Guideline Recommended Treatments: • Adrenocorticotropic hormone (ACTH) • High dose prednisolone • vigabatrin (VGB) **Diagnosis is usually defined as seizure marked by momentary flexion or extension of the neck, trunk, extremities, or any combination, with onset occurring in first year of life with or without the presence of hypsarrhythmia. Recommended treatments subject to change if approved treatments added after measure approval.
Denominator Statement	All patients aged 2 weeks to 24 months diagnosed with IS
Denominator Exceptions	• Medical provider identified all 3 treatments are contraindicated • Caregiver refuses all 3 treatments • Patient participating in a research trial that precludes use of these medications as first line therapy. • Presence of an inborn error of metabolism disorder (may include, but not limited to: (1) disorders of amino acid metabolism (phenylketonuria, dihydropteridine reductase deficiency, pyridoxine deficiency, pyrodoxal-5-phosphatase deficiency, folinic acid deficiency), (2) organic acidurias (D-glyceric aciduria, methylmalonic aciduria, propionic acidemia, maple syrup urine disease), (3) disorders of fatty acid oxidation (short-chain acyl-coenzyme A dehydrogenase enzyme deficiency), where alternative therapy is recommended and/or more appropriate.[1] • Resective epilepsy surgery is recommended as first line treatment.
Exception Justification	Patients that are surgical candidates may not need medication treatment for their infantile spasms. Parent/caregivers may refuse first line treatments. Provider may have good evidence that all three treatments are contraindicated. There may be times when the medical provider deems the risks of these three treatments to outweigh the benefits as first line therapy. Should the opportunity arise in the future for a trial, patients may need to be excluded from these treatments. Patients with inborn errors of metabolism can have a treatment to correct the error of metabolism and reverse symptomology including the infantile spasms. Therefore, first line infantile spasms treatments may not be necessary.

Supporting Guideline & Other References	The following statements are quoted verbatim from the referenced supporting articles: • "The evidence is insufficient to recommend the use of prednisolone, dexamethasone, and methylprednisolone as being as effective as ACTH for short-term treatment of infantile spasms"[2] • "ACTH or VGB may be offered for short-term treatment of infantile spasms. Evidence suggests that ACTH may be offered over VGB"[2] • "Hormonal therapy (ACTH or prednisolone) may be considered for use in preference to VGB in infants with cryptogenic infantile spasms, to possibly improve developmental outcomes"[2] • "A shorter lag time to treatment of infantile spasms with either hormonal therapy or VGB may be considered to improve long-term cognitive outcomes"[2] • "VGB is most effective in the first line treatment of infantile spasms when used in children with normal development at the time of diagnosis"[3] • "Children with infantile spasm who respond to VGB first are more likely to undergo seizure resolution over time than those who failed VGB"[3] • "The results show that high dose ACTH appears to be more effective than prednisolone"[4] • "…vigabatrin is most likely to be effective in the first line treatment of infantile spasms, not related to tuberous sclerosis complex in children with normal development at the time of diagnosis"[5] • "Lead time to treatment was 7 days or less in 11, 8-14 days in 16, 15 days to 1 month in 8, 1-2 months in 15, >2 months in 21 and not known in 6. Each month of reduction in age at onset of spasms was associated with a 3.1 [95% confidence interval (CI) 0.64-5.5, p = 0.03] decrease, and each increase in category of lead time duration associated with a 3.9 (95% CI 7.3-0.4, p = 0.014) decrease in VABS, respectively "[6] • "ACTH is preferable in the short-term control of spasms"[7] • "Oral steroids are probably effective in the short-term control of spasms"[7] • "Data are insufficient to comment on the optimal preparation, dosage, and duration of treatment of steroids"[7] • "Vigabatrin is possible effective in the short-term control of spasms, especially in the case of tuberous sclerosis complex"[7] • "Treatment with ACTH/oral steroids may result in better long-term neurodevelopmental outcome than treatment with vigabatrin in children with epileptic spasms due to unknown etiologies"[7] • "A shorter interval from the onset of spasms to treatment initiation may improve the long-term neurodevelopmental outcome, especially in cases where there is no identified etiology"[7] • "The shorter the "lag time" (time from spasms onset to commencement of therapy) the better the developmental outcome"[7] • "Hormone treatment controls spasms better than does vigabatrin initially, but not at 12-14 months of age. Better initial control of spasms by hormone treatment in those with no identified underlying aetiology may lead to improved developmental outcome"[8] • "In particular, the poor response to nonstandard medications and fewer relapses with ACTH over oral steroids were noted"[10]

Measure Importance	
Relationship to Desired Outcome	Patients that receive first line therapy for IS have a greater chance for improved clinical outcomes such as decreased risk for developmental delay and potentially less chance of developing epilepsy such as Lennox-Gastaut Syndrome (LGS).
Opportunity for Improvement	Use of non-standard or evidence based treatment or treatment that has been shown to be ineffective for IS still occurs significantly.[9]
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☐ Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Harmonization with Existing Measures	N/A
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒ Process ☐ Outcome ☐ Structure
Level of Measurement (Check all that apply)	☒ Individual Provider ☒ Practice ☒ System
Care Setting (Check all that apply)	☒ Outpatient ☒ Inpatient ☐ Emergency Departments and Urgent Care ☐ Residential (i.e., nursing facility, domiciliary, home care)
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☐ Administrative Data/Claims ☒ Patient Medical Record ☒ Registry
References	

1. Gkampeta A, Pavlous E. Infantile Spasms (West Syndrome) in Children With Inborn Errors of Metabolism: A Review of the Literature. Journal of Child Neurology 2012; 27:1295-1301.

2. Go C, Mackay M, Weiss S, et al. Evidence-based guideline update: Medical treatment of infantile spasms. Neurology 2012; 78:1974-80.
3. Jones K, Boyd J, Go C, et al. Vigabatrin in the first line treatment of infantile spasms. Epilepsy Currents 2015; 15:533-534.
4. Jones K, Go C. ACTH vs. prednisolone in the treatment of infantile spasms post vigabatrin failure. Epilepsy Currents 2014; 14:447-448.
5. Jones K, Go C, Boyd J, et al. Vigabatrin as first-line treatment for infantile spasms not related to tuberous sclerosis complex. Pediatric Neurology 2015; 53:141-145.
6. O'Callaghan FJ, Lux AL, Darke K, Edwards SW, Hancock E, Johnson AL, Kennedy CR, Newton RW, Verity CM, Osborne JP. The effect of lead time to treatment and of age of onset on developmental outcome at 4 years in infantile spasms: evidence from the United Kingdom Infantile Spasms Study. Epilepsia. 2011 Jul; 52(7):1359-64
7. Wilmshurst J, Gaillard W, Vinayan KP, et al. Summary of recommendations for the management of infantile seizures: Task Force Report for the ILAE Commission of Pediatrics. Epilepsia 2015; 56:1185-1197.
8. Lux AL, Edwards SW, Hancock E, et al. The United Kingdom Infantile Spasms Study (UKISS) comparing hormone treatment with vigabatrin on developmental and epilepsy outcomes to age 14 months: a multicenter randomized trial. Lancet Neurol 2005; 4:712-7.
9. Widjaja E, Go C, McCoy B, Snead O. Neurodevelopmental outcome of infantile spasms: A review and meta-analysis. Epilepsy Research 2015; 109:155-162.
10. Knupp K, Coryell J, Nickels KC, et al. Response to treatment in a prospective national infantile spasms cohort. Ann Neurol 2016; 79:475-84.

Denominator (Eligible Population)	ICD-10 Code G40.82 Infantile spasms AND CPT E/M Service Code **99221, 99222, 99223** Initial hospital care 30, 50, or 70 minutes, per day, for the evaluation and managem ent of a patient; **99231, 99232, 99233** Subsequent hospital care 15, 25, or 35 minutes, per day, for the evaluation and management of a patient **99201, 99202, 99203, 99204, 99205** Office or other outpatient visit 10, 20, 30, 45, or 60 minutes for the evaluation and management of a new patient; **99211, 99212, 99213, 99214, 99215** Office or other outpatient visit 5, 10, 15, 25, or 40 minutes for the evaluation and management of an established patient

The child neurology measurement set was released in 2017. The specification for the querying for co-morbid conditions of tic disorder and Tourette syndrome measure was modified in January 2018 for implementation in the Axon Registry®. The modification was made to reflect the CMS' requirement a follow-up action occur after a screening. Changes were made solely for registry implementation.

Measure Title	Querying for co-morbid conditions of tic disorder (TD) and Tourette syndrome (TS) with follow-up	
Description	Percentage of patients who were queried for psychological and/or behavioral co-morbid conditions of tic disorder (TD) or Tourette syndrome (TS), and if present, treated or referred for treatment of co-morbid conditions	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	Patients less than or equal to 18 years of age
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider
	Diagnosis	Tic disorder (TD) or Tourette syndrome (TS)
Denominator	All patients aged $\leq$ 18 years with the diagnosis of TD* or TS who do not have an existing diagnosis of a comorbid condition. *Tic disorders include:[1] • Chronic or transient (DSM IV) • Persistent or provisional (DSM V) • Motor and vocal • Other tic disorder • Tic disorder not specified	
Numerator	Patients who were queried^ for symptoms of psychological and/or behavioral co-morbid conditions* at least once per year, and if present, patient was treated** or referred*** for treatment of co-morbid conditions. ^Queried is defined as asking or inquiring about the presence or absence of symptoms. *Co-morbid conditions (to meet measure requirements, must query for all conditions in the list below): • Mood disorders, including depression and anxiety, • Obsessive compulsive disorder (OCD), • Attention Deficit Hyperactivity Disorder (ADHD), • Oppositional Defiant Disorder (ODD) **Treated is an intervention and/or medication implemented for co-morbid conditions. • Treatment plan reviewed • Prescription written, or dose adjusted ***Referred includes a referral to psychiatry or psychology	

	• Referral initiated
Required Exclusions	None
Allowable Exclusions	• Patient/caregiver refuse
Exclusion Rationale	Exception for patient and caregiver declinations needed as patient and caregivers need to be willing to undergo evaluation for results to be meaningful.
Measure Scoring	Percentage/Proportion
Interpretation of Score	Higher Score Indicates Better Quality
Measure Type	Process
Level of Measurement	Individual provider, Practice, System
Risk Adjustment	Not Applicable
Relationship to Desired Outcome	Tic disorder is frequently associated with psychiatric conditions and presence of these co-morbid conditions can be worse than the tics itself, can significantly impair function and can affective cognitive performance.[3] Screening for these conditions will lead to early diagnosis and treatment.
Opportunity for Improvement	It is estimated that between 80% to 90% of patients with Tourette syndrome have both tics and psychiatric manifestations.[5] Their quality of life is impacted by these accompanying psychiatric conditions.[5]
Harmonization with Existing Measures	N/A
References	1. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5. Washington, D.C: American Psychiatric Association. 2. Cath DC, Hedderly T, Ludolph AG, et al. European clinical guidelines for Tourette syndrome and other tic disorders. Part I: assessment. European Child & Adolescent Psychiatry 2011; 20:155-71. 3. McGuire JF, Kugler BB, Park JM, et al. Evidence-based assessment of compulsive skin picking, chronic tic disorders and trichotillomania in children. Child Psychiatry & Human Development 2012; 43:855-83. 4. Murphy T, Lewin A, Starch E, et al. Practice Parameter for the Assessment and Treatment of Children and Adolescents with Tic Disorders. Journal of the American Academy of Child & Adolescent Psychiatry 2013; 52:1341-59. 5. Rizzo R, Gulisano M, Pellico A, Valeria Cali P, Curatolo P. Tourette Syndrome and Comorbid Conditions: A Spectrum of Different Severities and Complexities. Journal of Child Neurology 2014; 29:1382-1389. 6. Ludolph AG, Toessner V, Munchau A, Muller-Vahl K. Review article: Tourette syndrome and other tic disorders in childhood, adolescence and adulthood. Deutsches Arzteblatt International 2012; 48:821-828. 7. Eapen V, Snedden C, Crncec R, Pick A, Sachdev P. Tourette syndrome, co-morbidities and quality of life. Australian & New Zealand Journal of Psychiatry 2016; 50:82-93.

Code System	Code	Code Description
ICD-10	F95.1	Tic chronic
ICD-10	F95.2	Tourette Syndrome
CPT	99201-99205	Office or other outpatient visit, New Patient
CPT	99211-99215	Office or other outpatient visit, Established Patient

Botulinum Toxin Serotype A (BoNT-A) for spasticity or dystonia

Measure Description	
Percentage of patients with spasticity or dystonia who were evaluated or referred or treated with BoNT-A	
Measure Components	
Numerator Statement	Patients who were evaluated OR treated OR referred for BoNT-A injection
Denominator Statement	All patients ≤ 18 years of age with moderate to severe localized/segmental spasticity or dystonia in the upper and/or lower extremities
Denominator Exceptions	• Patient/caregiver refuse • BoNT-A is contraindicated • Patient has established care with another neurology or non-neurology provider that can evaluate the need for and/or provide BoNT-A injections
Exception Justification	Not all patients and parents may agree to the procedure. If a patient has a contraindication to BoNT-A, such as prior adverse reaction, then they should be excluded due to risk of harm. The patient may be seeing a different practitioner for their BoNT-A injection needs making additional evaluation redundant and burdensome.
Supporting Guideline & Other References	The following statements are quoted verbatim from the referenced supporting articles: • "For localized/segmental spasticity that warrants treatment, botulinum toxin type A should be offered as an effective and generally safe treatment."[1] • "Consider botulinum toxin type A treatment in children and young people in whom focal spasticity of the upper limb is:[2] o Impeding motor function o Compromising care and hygiene o Causing pain o Impeding tolerance of other treatments, such as orthoses o Causing cosmetic concerns to the child or young person" • "Consider botulinum toxin type A treatment where focal spasticity of the lower limb is:[2] o Impeding gross motor function o Compromising care and hygiene o Causing pain o Disturbing sleep

	○ Impeding tolerance of other treatments, such as orthoses and use of equipment to support posture ○ Causing cosmetic concerns to the child or young person" • "Children and young people with spasticity should have access to a network of care that uses agreed care pathways supported by effective communication and integrated team working, and provides access to healthcare professionals experienced in the care of such people. The network team should provide local expertise in paediatrics, nursing, physiotherapy, and occupational therapy. Access to other expertise, including orthotics, orthopaedic surgery (and/or neurosurgery), and paediatric neurology, may be provided locally or regionally."[3] • "After diagnosis, ensure that all children and young people with spasticity are referred without delay to an appropriate member of the network team."[3]
Measure Importance	
Relationship to Desired Outcome	BoNT-A is established as an effective treatment for localized/segmental spasticity and dystonia.[1] While there is conflicting evidence regarding its use to improve motor function, improving spasticity and dystonia can provide better delivery of care and hygiene, improve tolerance to other treatments (such as orthoses and equipment to support posture), reduce pain from spasticity, reduce disturbance of sleep from pain and spasticity.
Opportunity for Improvement	Early referral to services will allow for stimulation of motor development.[3]
National Quality Strategy Domains	☐ Patient and Family Engagement ☐ Patient Safety ☒ Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☐ Clinical Process/Effectiveness
Harmonization with Existing Measures	N/A
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒ Process ☐ Outcome ☐ Structure
Level of Measurement	☒ Individual Provider ☒ Practice ☐ System

(Check all that apply)	
Care Setting (Check all that apply)	☒ Outpatient ☐ Inpatient ☐ Emergency Departments and Urgent Care ☒ Residential (i.e., nursing facility, domiciliary, home care)
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☐ Administrative Data/Claims ☒ Patient Medical Record ☒ Registry
References	
1. Delgado MR, Hirtz D, Aisen M, et al. Practice Parameter: Pharmacologic treatment of spasticity in children and adolescents with cerebral palsy (an evidence-based review). Neurology 2010; 74:336-343. 2. National Institute for Health and Care Excellence. Spasticity in children and young people with non-progressive brain disorders. Accessed on 6/22/16. 3. Mugglestone M, Eunson P, Murphy MS. Spasticity in children and young people with non-progressive brain disorders: summary of NICE guidance. BMJ 2012; 345:e4845.	
Denominator (Eligible Population)	ICD-10 Code R25.2 Spasticity G24.9 Dystonia AND CPT E/M Service Code **99201, 99202, 99203, 99204, 99205** Office or other outpatient visit 10, 20, 30, 45, or 60 minutes for the evaluation and management of a new patient; **99211, 99212, 99213, 99214, 99215** Office or other outpatient visit 5, 10, 15, 25, or 40 minutes for the evaluation and management of an established patient

ALS Patient Care Preferences

Amyotrophic Lateral Sclerosis

Measure Description

Percentage of patients diagnosed with ALS who were offered at least once annually assistance in planning for end of life issues (eg advance directives, invasive ventilation, hospice).

Measure Components

Numerator Statement	Patients who were offered at least once annually assistance in planning for end of life issues (eg advance directives, invasive ventilation, or hospice).
Denominator Statement	All patients with a diagnosis of amyotrophic lateral sclerosis.
Denominator Exclusions	Documentation of a medical reason for not offering at least once annually assistance in planning for end of life issues (eg patient in hospice and already in terminal phase)
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • Advance directives for palliative end-of-life care should be discussed early with the patient and carers, respecting the patient's social and cultural background.[1] • Offer assistance in formulating an advance care directive. (GPP)[2] • Review the patients' wishes regarding their care and advance directives regularly. (Level II)[3] • Re-discuss the patient's preferences for life-sustaining treatments every 6 months. (GPP)[2] • Initiate discussions on end-of-life issues whenever the patient asks or "opens the door" for end-of-life information and/or interventions. (GPP)[2]Treat pain in ALS following accepted guidelines. (GPP)[2] • Initiate early referral to hospice or home care teams well in advance of the terminal phase of ALS to facilitate the work of the hospice team. (GPP)[2] • Discuss options for respiratory support and end-of-life issues if the patient has dyspnea, other symptoms of hypoventilation or VC <50%. (GPP)[2] • Treat terminal dyspnea and/or pain with opioids alone or in combination with benzodiazepines if anxiety is present.(GPP)[2] [1] Andersen PM, Abrahams S, Borasio GD, et al. EFNS guidelines on the Clinical Management of Amyotrophic Lateral Sclerosis (MALS) - revised report of an EFNS task force. *Eur J Neurol* 2011;19(3) 360-375 (GPP=Good Practice Point) [2]Andersen PM, Borasio GD, Dengler R, et al. EFNS task force on management of amyotrophic lateral sclerosis: guidelines for diagnosing and clinical care of patients and relatives. *European J of Neurology* 2005;12:921-938 (GPP=Good Practice Point) [3]Heffernan C., Jenkinson C, Holmes T, et al. Management of respiration in MND/ALS patients: An evidence based review. *Amyotrophic Lateral Sclerosis* 2006; 7(1):5-15.

Measure Importance

Relationship to desired outcome

Referral to palliative services occurs varies considerably across different countries[1]. End of life discussions will improve patient decision making with respect to disease management [1-7]

Offering assistance in formulating an advanced care directive can initiate this discussion and re-discussion of the patient's preferences for life-sustaining treatments every 6 months.[3,4,5] Pain in ALS should be treated following accepted guidelines.[8-11] Physical therapy will aid in treating spasticity and pain.[12] Discussion of respiratory support if the patient has dyspnea, other symptoms of hypoventilation or VC <50% will allow patient to choose intervention or hospice [12-13] Early referral to hospice or home care teams well in advance of the terminal phase of ALS will facilitate the work of the hospice team and improve patient transition to hospice.[15, 19] A medical social worker can help with financial issues. Medications for terminal dyspnea , pain and/or anxiety will improve quality of life [15-19]

References

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Opportunity for Improvement

Palliative care should be adopted from the time of diagnosis.[1] Many patients are not adequately informed about advance directives and end of life decision making and many hospice workers are not familiar with ALS. [2,3,4] Management of the terminal phase of ALS is unsatisfactory in 33% - 61% of cases in Europe [5] and only 8% of palliative care units are involved from the time of diagnosis [6] The current system of palliative care in the USA is highly decentralized. [7] Between 60-88% of patients die in a medical facility in some countries and not at home, while over 58% of seriously ill ALS patients do not have hospice care[8, 9.,10]. Approaches to end of life care vary widely and are not standardized either in timing or content [1,11]

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IOM Domains of Health Care Quality Addressed	Effective Patient centered Timely

Exclusion Justification	A medical reason exclusion has been included for patients who are already in hospice and in the terminal phase.

Harmonization with Existing Measures

There exist two other measures that refer to advanced care planning. The American Geriatrics Society (2008) has a measure "Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan." However this measure is limited to those over the age of 65. The work group felt it was important to not exclude patients under 65 years old who have ALS from an end of life planning measure. In addition, the Institute for Clinical Systems Improvement (ICSI) (2009) has a measure that states the "Percentage of adult patients with the specified progressive, debilitating disease who have a palliative care plan* in chart." *A completed palliative care plan addresses all seven domains of care: physical aspects, cultural aspects, psychological aspects, social aspects, spiritual/ religious/existential aspects, ethical/legal aspects, and care of the imminently dying patient. However, this measure does not reference specific end of life needs that are relevant for patients with ALS. This measure was also not developed by a medical specialty society and the methods used to develop the measure are unclear.

Measure Designation

Measure purpose	☐ Quality improvement • Accountability
Type of measure	☐ Process
Level of Measurement	☐ Individual practitioner
Care setting	☐ Ambulatory Care
Data source	☐ Electronic health record (EHR) data • Administrative Data/Claims (inpatient or outpatient claims) • Administrative Data/Claims Expanded (multiple-source) ☐ Paper medical record

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

The specifications listed below are those needed for performance calculation. Additional CPT II codes may be required depending on how measures are implemented. (Reporting vs. Performance)

Denominator (Eligible Population)	ICD-9 –CM Diagnosis Codes: 335.20 amyotrophic lateral sclerosis AND CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (office-new patient),

99211,99212, 99213, 99214, 99215 (office-established patient),
99241, 99242, 99243, 99244, 99245 (outpatient consult),
99304, 99305, 99306, 99307, 99308, 99309, 99310 (nursing facility),
99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337 (domiciliary),
99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350 (home visit)

Numerator

Patients who were offered at least once annually assistance in planning for end of life issues (eg advance directive, invasive ventilation, or hospice).

Reporting Instructions:

- For all patients meeting denominator criteria, report the CPT Category II, 4**XXXF6**, *Patient offered assistance in planning for end of life issues*

4XXXF6 *Patient offered assistance in planning for end of life issues*

Denominator

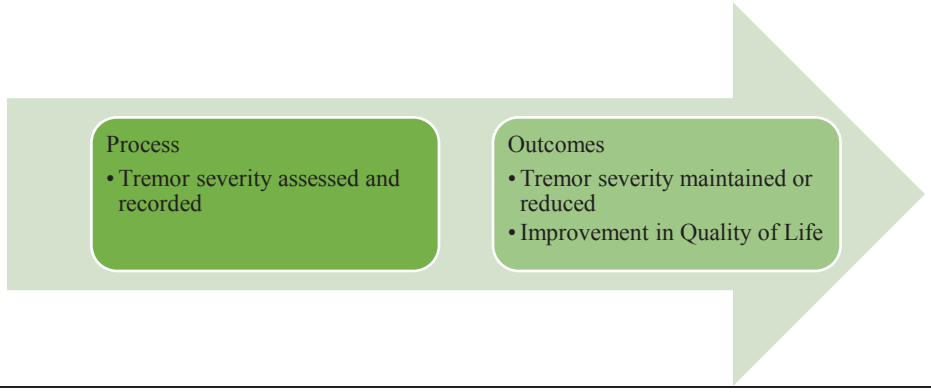
All patients with a diagnosis of amyotrophic lateral sclerosis.

Exclusions

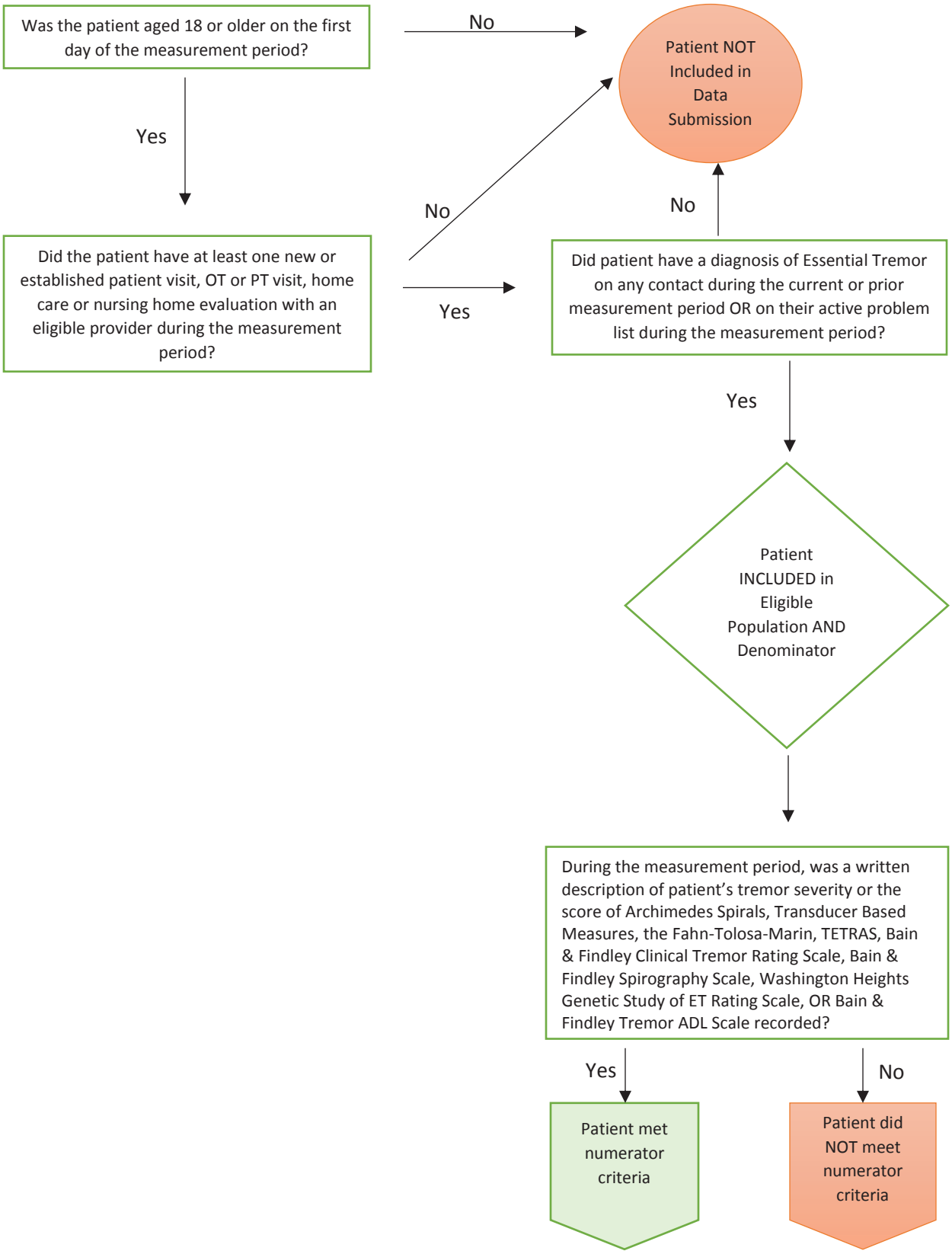
- Documentation of a medical reason for not offering at least once annually assistance in planning for end of life issues at least once annually (eg patient in hospice and already in terminal phase)

  Reporting Instructions:

  - For patient with appropriate exclusion criteria, report: 4**XXXF6-1P**

Measure Title	Annual Assessment of Essential Tremor Severity	
Description	Percentage of patients aged 18 years or older with ET whose tremor severity was assessed annually and recorded* at least once in the 12-month measurement period.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN), Physical Therapist, Occupational Therapist
	Care Setting(s)	Outpatient and Post-Acute Care
	Ages	18 years and older
	Event	Patient had an office visit, E/M services, physical therapy, occupational therapy, or home care services performed or supervised by an eligible provider as a patient.
	Diagnosis	Essential Tremor
Denominator	Patients 18 years and older with a diagnosis of essential tremor.	
Numerator	Patients aged 18 years or older with ET whose tremor severity was assessed annually and recorded* in the 12-month measurement period. *Recorded includes a written description of severity OR score from use of a validated tool noted in the medical record: Archimedes Spirals, Transducer Based Measures, the Fahn-Tolosa-Marin, TETRAS, Bain & Findley Clinical Tremor Rating Scale, Bain & Findley Spirography Scale, Washington Heights Genetic Study of ET Rating Scale, or Bain & Findley Tremor ADL Scale(1)	
Required Exclusions	None	
Allowable Exclusions	None	
Exclusion Rationale	Not Applicable	
Measure Scoring	Percentage/Proportion	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Provider, Practice and System	
Risk Adjustment	Not Applicable	
For Process Measures Relationship to Desired Outcome	The desired outcome is to reduce tremor severity and disability. This measure will deliver meaningful data to healthcare providers to identify and manage tremor severity and disability. 	

Opportunity to Improve Gap in Care	Patients have reported a need for additional detailed reports and more quantitative ways of assessing tremor and tracking progression. (2) This measure would provide a standardized scale assessing tremor and allowing for additional conversations between providers and patients on disease progression. Verbal assessment can be completed for those who decline to use a scale.
Harmonization with Existing Measures	No similar measures known.
References	1. Elble R, Bain P, Forjaz MJ, et al. Task force report: scales for screening and evaluating tremor: critique and recommendations. Mov Disord. 2013;28(13):1793-1800. 2. Louis ED, Rohl B, and Rice C. Defining the Treatment Gap: What Essential Tremor Patients Want That They Are Not Getting. Tremor Other Hyperkinet Mov. 2015;5:331.



Code System	Code	Code Description
ICD-9	333.1	Essential Tremor
ICD-10	G25.0	Essential Tremor
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
CPT	97165,97166,97167	Occupational therapy low, moderate, and high evaluation
CPT	97168	Occupational therapy reevaluation
CPT	97161,97162,97163	Physical therapy low, moderate, and high evaluation
CPT	97164	Physical therapy reevaluation
CPT	99304-99310	Nursing Home Consultation
CPT	99318	Other Nursing Facility Service
CPT	99324-99328; 99334-99337	Domiciliary, Rest Home Care Services
CPT	99339,993340	Domiciliary, Rest Home Care Services Care Plan Oversight
CPT	99341-99345	Home Care
CPT	99347-99350	Home Care

The multiple sclerosis (MS) measurement set was reaffirmed in 2017. The specification for the current MS disability scale score measure was modified in January 2018 for implementation in the Axon Registry®. The modification was made to reflect the CMS' requirement a follow-up action occur after a score was recorded. No other changes were made to the measurement set, and changes were made solely for registry implementation.

Measure Title	Current MS Disability Scale Score and Follow-up	
Description	Percentage of patients with MS who have a MS disability scale score* documented in the medical record in the past 12 months and had appropriate follow up.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	All patients
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider
	Diagnosis	Multiple Sclerosis
Denominator	All patients with a diagnosis of MS.	
Numerator	Patients with MS who have a MS disability scale score* documented in the medical record in the past 12 months and had appropriate follow up**. *MS disability scale score is defined as the score obtained from administering one of the following: • Patient Determined Disease Steps (PDDS)[1], • At least 2 measures of MS Functional Composite (MSFC)[2], • Kurtzke Expanded Disability Status Scale (EDSS)[3,4], • European Database on MS Grading System (EDMUS-GS)[5,6], • Functional Independence Measure (FIM)[7], • Guy's Neurological Disability Scale (GNDS)[8], • Neurological Rating Scale from the Scripps Clinic[9], • MS Rating Scale, Revised (MSRS-R)[10], • Appropriate instruments from the NIH Toolbox (i.e. if the patient's primary impairment is motor, motor function would be assessed)[11], • Appropriate instruments from the PROMIS[12] or NeuroQOL[13]. **Follow-up actions will be identified in the Axon Registry via use of the following key search terms: recommendation of physical therapy or occupational therapy, medication change, medications updated, recommendation of imaging, plan for continued monitoring, treatment plan updated, results discussed, or follow up plan developed.	
Required Exclusions	None	
Allowable Exceptions	• Patient declines to self-report and declines neurological examination. • Patient is unable to participate in neurological examination (i.e., advanced stage dementia, profound psychosis, neurodevelopmental disorder, brain injury encephalopathy, or hydrocephalus).	
Exclusion Rationale	Patients need to be willing to undergo a standardized neurological examination for most of the MS performance scales scores to be valid.	
Measure Scoring	Percentage/Proportion	

Interpretation of Score	Higher Score Indicates Better Quality
Measure Type	Process
Level of Measurement	Individual provider, Practice, System
Risk Adjustment	Not Applicable
For Process Measures Relationship to Desired Outcome	It is anticipated that by monitoring disease progression, clinicians will be able to offer timely interventions, thereby reducing MS progression. The annual relapse rate and Expanded Disability Status Scale (EDSS) progression are the most commonly used clinical endpoints in disease modifying therapy trials.[3,4] A disability measure should be part of any annual assessment. The relapse rate and disability progression are also important objective determinants for changing MS therapy.[1] Additionally, these morbidity endpoints are used in the EDMUS database, Canadian MS Databases (BC and Ontario), NY State MS Consortium, and NARCOMS.[5,6,15]
Opportunity to Improve Gap in Care	Not all patients in clinical practice have an annual validated MS scale measurement. Clinicians cannot detect disability progression unless there is regular assessment and comparison of assessment scores.
Harmonization with Existing Measures	There are currently no other comparable measures in national measurement programs or endorsed by the National Quality Forum.
References	1. Learmonth YC, Motl RW, Sandroff BM, et al. Validation of patient determined disease steps (PDDS) scale scores in persons with multiple sclerosis. BMC Neurology 2013;13:37. 2. Cutter GR, Baier ML, Rudick RA, et al. Development of a multiple sclerosis functional composite as a clinical trial outcome measure. Brain 1999; 122: 871–882 3. Kurtzke JF. Origin of DSS: to present the plan. Mult Scler 2007; 13:120-123. 4. Kurtzke JF. Rating neurologic impairment in multiple sclerosis: an expanded disability status scale (EDSS). Neurology. 1983 Nov;33(11):1444-52. 5. Grimaud J, Amato MP, and Confavreux C. Design of a European multicenter study dedicated to the evaluation of the EDMUS System: EVALUED. Mult Scler 1999; 5: 234-238. 6. Amato MP, Grimaud J, Achiti I, et. Al. European validation of a standardized clinical description of multiple sclerosis. J Neurol 2004; 251: 1472-1480. 7. Ottenbacher KJ, Hsu Y, Granger CV, et al. The reliability of the Functional Independence Measure: a quantitative review. Arch Phys Med Rehabil 1996;77:1226-32. 8. Sharrack B, Hughes RA. The Guy's Neurological Disability Scale (GNDS): a new disability measure for multiple sclerosis. Mult Scler. 199;5(4)223-233. 9. Sipe JC, Knobler RL, Braheny SL, et al. A neurologic rating scale (NRS) for use in multiple sclerosis. Neurology 1984;34:1368-1372. 10. Wicks P, Vaughan TE, and Massagli MP. The multiple sclerosis rating scale, revised (MSRS-R): Development, refinement, and psychometric validation using an online community, Health and Quality of Life Outcomes. 2010;10:70. 11. Hodes RJ, Insel TR, Landis SC. On behalf of the NIH Blueprint for Neuroscience Research. The NIH Toolbox: Setting a standard for biomedical research. Neurology 2013;80(S3):S1-S92. All NIH Toolbox-related materials are ©2012 Northwestern University and the National Institutes of Health. 12. Cella D, Riley W, Stone A, et al. Initial Adult Health Item Banks and First Wave Testing of the PatientReported Outcomes Measurement Information

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Code System	**Code**	**Code Description**
ICD-9	340	Multiple Sclerosis
ICD-10	G35	Multiple Sclerosis Disseminated Multiple Sclerosis Generalized Multiple Sclerosis Multiple Sclerosis NOS Multiple Sclerosis of brain stem Multiple Sclerosis of cord
CPT	99201-99205	Office or other outpatient visit, New Patient
CPT	99211-99215	Office or other outpatient visit, Established Patient
CPT	99241-99245	Office or other outpatient consultation, New or Established Patient
CPT	97001	Physical Therapy Evaluation
CPT	97002	Physical Therapy Re-Evaluation
CPT	97003	Occupational Therapy Evaluation
CPT	97004	Occupational Therapy Re-Evaluation

AMERICAN ACADEMY OF OPHTHALMOLOGY®

Giant Cell Arteritis: Absence of fellow eye involvement after treatment

Measure Title: IRIS22: Giant Cell Arteritis: Absence of fellow eye involvement after treatment

National Quality Strategy Domain:
Effective Clinical Care

Meaningful Measure Area:
Promote Effective Prevention & Treatment of Chronic Disease

Measure Type:
Outcome

Reporting Options:
IRIS Registry QCDR for EHR: groups and individuals
IRIS Registry QCDR manual data entry: groups and individuals

Description:

Percentage of patients without fellow eye involvement 1-26 weeks after initiating treatment in patients with unilateral visual loss.

Instructions:

This measure is to be reported a minimum of **once per reporting period** for patients diagnosed with giant cell arteritis between January 1 and June 30. It is anticipated that clinicians who provide the primary management of patients with giant cell arteritis will submit this measure.

Denominator:

All patients aged 18 years or older diagnosed with giant cell arteritis between Jan. 1 and June 30 with unilateral vision loss with two or more encounters during the last six month that are receiving treatment.

Numerator:

Patients without fellow eye involvement 1-26 weeks after initiating treatment.

Numerator Options:

Performance Met:	Patients without fellow eye involvement 1 week to 26 weeks after initiating treatment.
Performance Not	Patients with fellow eye involvement 1 week to 26 weeks after initiating with fellow eye involvement 1 week to 26 weeks after initiating treatment.

Improvement Notation:
Higher score indicates better performance

Rationale:
The major sequelae of giant cell arteritis for the fellow eye involvement can be prevented with appropriate corticosteroid treatment.

This is from a clinical textbook reference:
"High-dose systemic corticosteroids should be administered immediately if GCA is suspected; biopsy may be delayed 7–10 days after institution of therapy. The primary purpose of therapy in GCA is to prevent fellow eye involvement, which occurs in up to 95% if untreated."

Arnold A. (2008) Ischemic Optic Neuropathies. In: Lorenz B., Borruat FX. (eds) Pediatric Ophthalmology, Neuro-Ophthalmology, Genetics. Essentials in Ophthalmology. Springer, Berlin, Heidelberg

Current clinical guideline: Giant Cell Arteritis - Eyewiki, October 24, 2017 - http://eyewiki.aao.org/Giant_Cell_Arteritis; 2018-2019 AAO Basic and Clinical Science Course, Section 5, Neuro-Ophthalmology

North American Neuro-Ophthalmology Society (NANOS)

QCDR Measure:

Ocular Myasthenia Gravis: Improvement of ocular deviation or absence of diplopia or functional improvement

National Quality Strategy Domain:

Effective Clinical Care

Measure Type:

Outcome

Description:

Percentage of patients with a diagnosis of ocular myasthenia gravis who had an improvement of ocular deviation OR were absent of diplopia in primary gaze OR had functional improvement of ptosis 6 months after initial treatment.

Instructions:

This measure is to be reported a minimum of **once per reporting period** for patients diagnosed with ocular myasthenia gravis between January 1 and June 30. It is anticipated that clinicians who provide the primary management of patients with ocular myasthenia gravis will submit this measure.

Denominator:

All patients aged 18 years or older diagnosed with ocular myasthenia gravis between January 1 and June 30 of the reporting period and received treatment for the condition.

Denominator Criteria

Patients aged ≥ 18 years

AND

Two or more encounters within the last 6 months (CPT: 99201, 99202, 99203, 99204, 99205, 99244, 99245, 92002, 92004, 92012, 92014, 99212, 99213, 99214, 99215)

AND

Diagnosis of ocular myasthenia gravis

- Myasthenia gravis without (acute) exacerbation (ICD-10: G70.00)
- Myasthenia gravis with (acute) exacerbation (ICD-10: G70.01)

AND

Ptosis and/or diplopia

- Unspecified ptosis of eyelid (ICD-10: H02.401, H02.402, H02.403, H02.409)
- Myogenic ptosis of eyelid (ICD-10: H02.421, H02.422, H02.423, H02.429)
- Diplopia (ICD-10: H53.2)

AND

Treatment initiated

- Patient prescribed one of the following medications - pyridostigmine, prednisone, mycophenolate mofetil, azathioprine, cyclosporine, rituximab.
- Strabismus surgery (CPT: 67311, 67312, 67314, 67316, 67318)
- Repair of blepharoptosis (CPT: 67901, 67902, 67903, 67904, 67906, 67908)
- Extraocular muscle procedure (CPT: 67345)
- Press-on prism (HCPCS: V2718)
- Occluder lens (HCPCS: V2770)

Numerator:

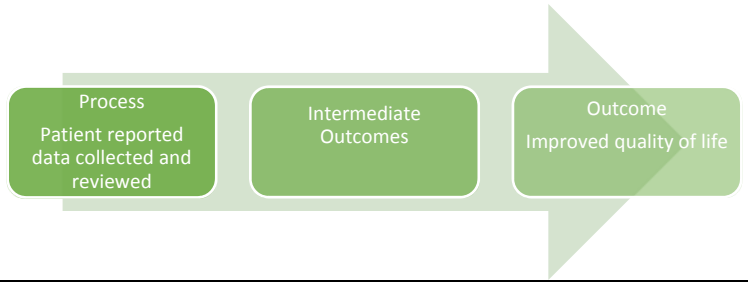
Patients with improvement of ocular deviation or absence of diplopia in primary gaze after treatment or functional improvement of ptosis at 6 months

Numerator Options:

Performance Met:	Patient had an improvement in ocular deviation 6 months after initial treatment. OR Patient had absence of diplopia in primary gaze 6 months after initial treatment. OR Patient had a functional improvement of ptosis 6 months after initial treatment.
Performance Not Met:	Patient did not meet any of the performance criteria

Improvement Notation:

Higher score indicates better performance

Measure Title	Quality of Life Assessment (PROMIS-29) and Follow Up	
Description	Percentage of patients age 18 years and older who had a PROMIS-29 administered, the results reviewed, and had appropriate follow up.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	18 years of age and older
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider
	Diagnosis	All neurological conditions
Denominator	All patients aged 18 years and older who had a PROMIS-29 administered in the FIGMD module during the measurement period.	
Numerator	Patients who had their PROMIS-29 administered, the results reviewed, and had appropriate follow up*. *Follow up to include appropriate treatment plan for those scoring above 60 on the PROMIS-29. Those scoring 59 and lower are determined to meet the measure with no further follow up warranted.	
Required Exclusions	None	
Allowable Exceptions	• Unable to complete screening instrument – advance stage dementia, profound psychosis, neurodevelopmental disorder, brain injury, encephalopathy, hydrocephalus, comatose or delirious • Patient declines^ ^For location via search term in a registry, the work group encourages providers to document this exclusion in the following format: “Patient declines assessment” or “Patient refuses assessment”.	
Exclusion Rationale	Patients need to be willing to undergo a standardized neurological examination for most of the MS performance scales scores to be valid.	
Measure Scoring	Percentage/Proportion	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Outcome	
Level of Measurement	Individual provider	
Risk Adjustment	Not Applicable	
For Process Measures Relationship to Desired Outcome		
Opportunity to Improve Gap in Care	Lack of understanding of how patients function outside of disease state and the impact their disease has on their life. Patient reported outcome data is not uniformly collected for neurology.(2) PROMIS data has been demonstrated to be of value to other healthcare conditions.(3) It is anticipated uniform collection of PROMIS data will lead	

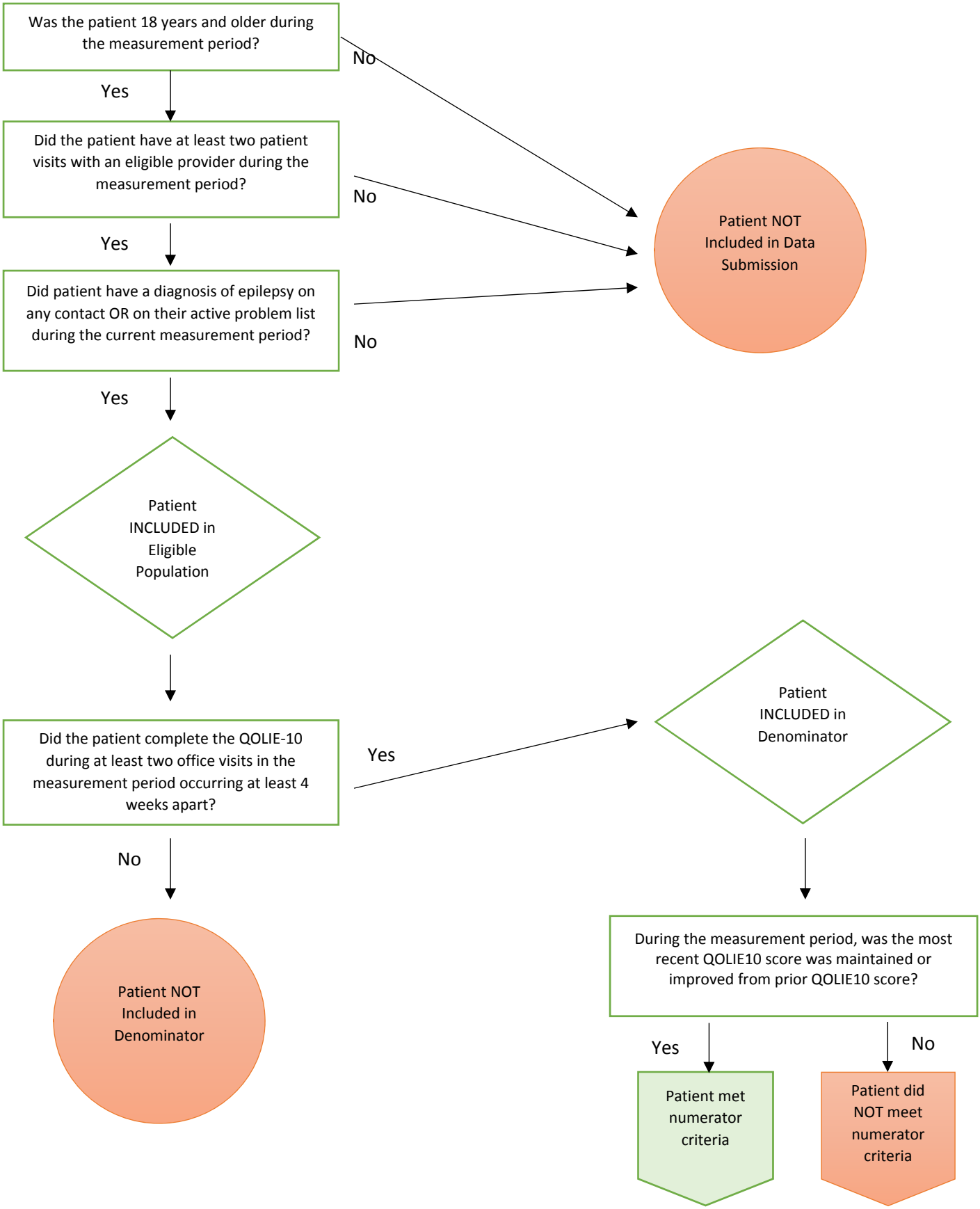
	physicians and providers to review the data on a consistent basis and thereby drive changes in treatment planning improving patient outcomes.
Harmonization with Existing Measures	No other neurology specific measure exists.
References	1. Cella D, Yount S, Rothrock N, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS): progress of an NIH Roadmap cooperative group during its first two years. Med Care 2007; 45: Suppl1: S3-S11. 2. Moura L, Schwamm E, Moura Junior V, et al. Feasibility of the collection of patient-reported outcomes in an ambulatory neurology clinic. Neurology 2016; 87:2435-2442. 3. Baumhauer JF. Patient-Reported Outcomes – Are They Living Up to Their Potential? NEJM 2017;377:1.

Quality of Life Outcome for Patients with Epilepsy

Measure Title	Quality of Life Outcome for Patients with Epilepsy	
Description	Percentage of patients whose quality of life assessment results are maintained or improved during the measurement period.	
Measurement Period	January 1, 20xx in Year 1 to December 31, 20xx in Year 2	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	Age 18 years and older
	Event	Office Visit
	Diagnosis	Epilepsy
Denominator	Patients aged 18 years and older diagnosed with epilepsy who had two office visits during the two-year measurement period which occurred at least 4 weeks apart.	
Numerator	Patients whose most recent QOLIE-10-P score is maintained or improved from the prior QOLIE-10-P score^ obtained in the measurement period. ^For patients who have more than two QOLIE-10-P scores in a calendar year, the last score recorded in the calendar year will be compared to the first score recorded in the calendar year.	
Required Exclusions	None	
Allowable Exclusions	None	
Exclusion Rationale	Not Applicable	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Outcome	
Level of Measurement	Provider	
Risk Adjustment	*See Appendix A AAN Statement on Comparing Outcomes of Patients* *This measure is being made available in advance of development of a risk adjustment strategy. Individuals commenting on the measures are encouraged to provide input on potential risk adjustment or stratification methodologies. The work group identified the following potential data elements that may be used in a risk adjustment methodology for this measure:* • Seizure frequency • Co-morbid anxiety and mood disorders • 3 or more comorbid medical conditions	
Desired Outcome	The QOLIE-10 has been validated for patients with epilepsy (1) and directly assesses quality of life from the patient perspective. Measuring quality of life allows patients and providers to identify areas of concern and develop appropriate treatment plan adjustments as needed.	
Opportunity to Improve Gap in Care	Collecting quality of life data via the QOLIE-10-P in a neurology ambulatory setting is feasible.(2) The QOLIE-10-P has been demonstrated to be responsive to changes in epilepsy treatment, although concern has been raised on the strong influence of mood on QOLIE scores.(3) By monitoring quality of life scores, providers may be able to offer interventions to improve patients quality of life, such as medication interventions, surgical interventions, co-morbid conditions, including behavioral health needs, or motivational interviewing.(3-5)	

	The work group chose the QOLIE-10-P for several reasons (i.e., the brief questionnaire reduces likelihood of respondent fatigue, ease of access for providers to obtain right to use the tool (6), and prior use in the field). The work group will revisit this decision during future updates to the measurement set evaluating the use of the QOLIE-10-P as well as possible similar measures for adolescent and child populations. The QOLIE-10-P requires respondents to provide input on their feelings during the past 4 weeks. The work group incorporated this time frame as a result. The measurement period for this measure is two years allowing for individuals who see their physician yearly for monitoring to be included in the measurement base.
Harmonization with Existing Measures	There are no known similar measures applicable to patients with epilepsy. The AAN is in the process of developing a quality of life measure that will apply to all patients with a neurologic condition. Those specifications will be reviewed by this work group once available.
References	1. Cramer JA, Perrine K, Devinsky O, et al. A Brief Questionnaire to Screen for Quality of Life in Epilepsy The QOLIE-10. Epilepsia 1996;37(6):577-582 2. Moura LMVR, Schwamm E, Moura Jr V., et al. Feasibility of the collection of patient-reported outcomes in an ambulatory neurology clinic. Neurology. 2016;87:1-8. 3. Patient-Reported Outcome Measurement Group, Oxford. A Structured Review of Patient-Reported Outcome Measures (PROMs) For Epilepsy: An Update 2009. Available at: http://phi.uhce.ox.ac.uk/pdf/PROMs_Oxford_Epilepsy_17092010.pdf Accessed on August 2, 2017. 4. Wassenaar M, Leijten FSS, Sander JW, et al. on behalf of the OPPEC study group. Anti-epileptic drug changes and quality of life in the community. Acta Neurol Scand 2016; 133:421-426. 5. Hosseini N, Mokhtari S, Momeni E, et al. Effect of motivational interviewing on quality of life in patients with epilepsy. Epilepsy & Behavior 2016;55:70-74. 6. QOLIE Development Group. QOLIE-10 Permission for Academic and Commercial Use. Available at: http://www.epilepsy.com/sites/core/files/atoms/files/permission%20to%20use%20QOLIE-10-P%20web.pdf

Flow Chart Diagram: Quality of Life for Patients with Epilepsy



Code System	Code	Code Description
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
ICD-9	345.00	Generalized nonconvulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.01	Generalized nonconvulsive epilepsy, with intractable epilepsy
ICD-9	345.10	Generalized convulsive epilepsy, without mention of intractable epilepsy
ICD-9	345.11	Generalized convulsive epilepsy, with intractable epilepsy
ICD-9	345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy
ICD-9	345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
ICD-9	345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy
ICD-9	345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy
ICD-9	345.60	Infantile spasms, without mention of intractable epilepsy
ICD-9	345.61	Infantile spasms, with intractable epilepsy
ICD-9	345.70	Epilepsia partialis continua, without mention of intractable epilepsy
ICD-9	345.71	Epilepsia partialis continua, with intractable epilepsy
ICD-9	345.90	Epilepsy, unspecified, without mention of intractable epilepsy
ICD-9	345.91	Epilepsy, unspecified, with intractable epilepsy
ICD-10	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10	G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
ICD-10	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus OR G40.409 Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10	G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10	G40.419	Other generalized
ICD-10	G40.822	Epileptic spasms, not intractable, without status epilepticus
ICD-10	G40.824	Epileptic spasms, intractable, without status epilepticus
ICD-10	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10	G40.919	Epilepsy, unspecified, intractable, without status epilepticus

Quality ID #370 (NQF 0710): Depression Remission at Twelve Months
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention, Treatment, and Management of Mental Health

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Outcome – High Priority

DESCRIPTION:
The percentage of adolescent patients12 to 17 years of age and adult patients18 yem1ars of age or older with major depression or dysthymia who reached remission 12 months (+/- 60 days) after an index event date

INSTRUCTIONS:
This measure is to be submitted **once per performance period** for patients with an encounter during the denominator identification period with a diagnosis of depression and an initial PHQ-9 or PHQ-9M greater than nine (index event). This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: *To be considered denominator eligible for this measure, the patient must have both the diagnosis of depression or dysthymia and a PHQ-9 or PHQ-9M score greater than 9 documented on the same date (index event) and this date occurs during denominator identification period (11/1/2017 to 10/31/2018).*

This measure will be calculated with 2 performance rates:

1) Percentage of adolescent patients (aged 12-17 years) with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event who reached remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5.

2) Percentage of adult patients (aged 18 years or older) with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event who reached remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR (SUBMISSION CRITERIA 1):
Adolescent patients 12 to 17 years of age with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event

Definitions:
Denominator Identification Period - The period in which eligible patients can have an index event. The denominator identification period occurs prior to the measurement period and is defined as 14 months to two months prior to the start of the measurement period. The denominator identification period is from 11/1/2017 to 10/31/2018. For patients with an index event, there needs to be enough time following index for the patients to have the opportunity to reach remission twelve months +/- 60 days after the index event date.

Index Event Date - The date on which the first instance of elevated PHQ-9 or PHQ-9M greater than nine AND diagnosis of depression or dysthymia occurs during the denominator identification period (11/1/2017 to 10/31/2018).

Measure Assessment Period - The index event date marks the start of the measurement assessment period for each patient which is 14 months (12 months +/- 60 days) in length to allow for a follow-up PHQ-9 or PHQ-9M between 10 and 14 months following the index event. This assessment period is fixed and does not "start over" with a higher PHQ-9 or PHQ-9M that may occur after the index event date.

Denominator Exclusions:

Patients with an active diagnosis of bipolar disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of bipolar disorder: F30.10, F30.11, F30.12, F30.13, F30.2, F30.3, F30.4, F30.8, F30.9, F31.0, F31.10, F31.11, F31.12, F31.13, F31.2, F31.30, F31.31, F31.32, F31.4, F31.5, F31.60, F31.61, F31.62, F31.63, F31.64, F31.70, F31.71, F31.72, F31.73, F31.74, F31.75, F31.76, F31.77, F31.78, F31.81, F31.89 or F31.9

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of bipolar disorder: 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.10, 296.11, 296.12, 296.13, 296.14, 296.15, 296.16, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.81, 296.82 or 296.89

Patients with an active diagnosis of personality disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of personality disorder: F34.0, F60.3, F60.4, F68.10, F68.11, F68.12 or F68.13

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of personality disorder: 301.13, 301.5, 301.51 or 301.83

Patients with an active diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of schizophrenia or psychotic disorder: F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F21, F23, F25.0, F25.1, F25.8, F25.9, F28 or F29

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of schizophrenia or psychotic disorder: 295.00, 295.01, 295.02, 295.03, 295.04, 295.05, 295.10, 295.11, 295.12, 295.13, 295.14, 295.15, 295.20, 295.21, 295.22, 295.23, 295.24, 295.25, 295.30, 295.31, 295.32, 295.33, 295.34, 295.35, 295.40, 295.41, 295.42, 295.43, 295.44, 295.45, 295.50, 295.51, 295.52, 295.53, 295.54, 295.55, 295.60, 295.61, 295.62, 295.63, 295.64, 295.65, 295.70, 295.71, 295.72, 295.73, 295.74, 295.75, 295.80, 295.81, 295.82, 295.83, 295.84, 295.85, 295.90, 295.91, 295.92, 295.93, 295.94, 295.95, 298.0, 298.1, 298.4, 298.8 or 298.9

Patients with an active diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of pervasive developmental disorder: F84.0, F84.3, F84.8 or F84.9

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of pervasive developmental disorder: 299.00, 299.01, 299.10, 299.11, 299.80, 299.81, 299.90 or 299.91

Patients who received hospice or palliative care service any time during denominator identification period or the measure assessment period – The following code would be sufficient to define the Denominator Exclusion of hospice or palliative care: Z51.5

DENOMINATOR NOTE: *Data collection for this measure is structured to align with the Depression Remission at 6 Months measure (Quality ID #411). Data is captured on the same denominator patients and then measuring them at two distinct points in time, both at six months and at twelve months. The fourteen month assessment period is held constant for these two measures. This means that patient is not re-indexing with a high PHQ-9 or PHQ-9M until that measure assessment period is elapsed.*

Denominator Criteria (Eligible Cases) 1:

Patients aged ≥ 12 years and ≤ 17 years

AND

Diagnosis for Major Depression or Dysthymia (ICD-10-CM): F32.0, F32.1, F32.2, F32.3, F32.4, F32.5, F32.9, F33.0, F33.1, F33.2, F33.3, F33.40, F33.41, F33.42, F33.9, F34.1

AND

Patient encounter during the denominator identification period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, G0402, G0438, G0439, 99441, 99442, 99443, 99444

AND

Index Event Date PHQ-9 or PHQ-9M Score greater than 9 documented during the twelve month denominator identification period: G9511

AND NOT

DENOMINATOR EXCLUSIONS:

Patients with an active diagnosis of bipolar disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of personality disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period

OR

Patients who died any time prior to the end of the measure assessment period

OR

Patients who received hospice or palliative care service any time during denominator identification period or the measure assessment period

OR

Patients who were permanent nursing home residents any time during denominator identification period or the measure assessment period

NUMERATOR (SUBMISSION CRITERIA 1):

Adolescent patients aged 12 to 17 years of age who achieved remission at twelve months as demonstrated by a twelve month (+/- 60 days) PHQ-9 or PHQ-9M score of less than five

Definitions:

Remission - a PHQ-9 or PHQ-9M score of less than five.

Twelve Months - The point in time from the index event date extending out twelve months then allowing a grace period of sixty days prior to and sixty days after this date. The most recent PHQ-9 or PHQ-9M score less than five obtained during this four month period is deemed as remission at twelve months, values obtained prior to or after this period are not counted as numerator compliant (remission).

Numerator Options:

Performance Met:	Adolescent patients 12 to 17 years of age with major depression or dysthymia who reached remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5 **(M1019)**

OR

Performance Not Met:	Adolescent patients 12 to 17 years of age with major depression or dysthymia who did not reach remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5. Either PHQ-

9 or PHQ-9M score was not assessed or is greater than or equal to 5 **(M1020)**

DENOMINATOR (SUBMISSION CRITERIA 2):

Adult patients aged 18 and older with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event

Definitions:

Denominator Identification Period- The period in which eligible patients can have an index event. The denominator identification period occurs prior to the measurement period and is defined as 14 months to two months prior to the start of the measurement period. The denominator identification period is from 11/1/2017 to 10/31/2018. For patients with an index event, there needs to be enough time following index for the patients to have the opportunity to reach remission twelve months +/- 60 days after the index event date.

Index Event Date - The date on which the first instance of elevated PHQ-9 or PHQ-9M greater than nine AND diagnosis of depression or dysthymia occurs during the denominator identification period (11/1/2017 to 10/31/2018).

Measure Assessment Period - The index event date marks the start of the measurement assessment period for each patient which is 14 months (12 months +/- 60 days) in length to allow for a follow-up PHQ-9 or PHQ-9M between 10 and 14 months following the index event. This assessment period is fixed and does not "start over" with a higher PHQ-9 or PHQ-9M that may occur after the index event date.

Denominator Exclusions:

Patients with an active diagnosis of bipolar disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of bipolar disorder: F30.10, F30.11, F30.12, F30.13, F30.2, F30.3, F30.4, F30.8, F30.9, F31.0, F31.10, F31.11, F31.12, F31.13, F31.2, F31.30, F31.31, F31.32, F31.4, F31.5, F31.60, F31.61, F31.62, F31.63, F31.64, F31.70, F31.71, F31.72, F31.73, F31.74, F31.75, F31.76, F31.77, F31.78, F31.81, F31.89 or F31.9

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of bipolar disorder: 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.10, 296.11, 296.12, 296.13, 296.14, 296.15, 296.16, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.81, 296.82 or 296.89

Patients with an active diagnosis of personality disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of personality disorder: F34.0, F60.3, F60.4, F68.10, F68.11, F68.12 or F68.13

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of personality disorder: 301.13, 301.5, 301.51 or 301.83.

Patients with an active diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of schizophrenia or psychotic disorder: F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F21, F23, F25.0, F25.1, F25.8, F25.9, F28 or F29

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of schizophrenia or psychotic disorder: 295.00, 295.01, 295.02, 295.03, 295.04, 295.05, 295.10, 295.11, 295.12, 295.13, 295.14, 295.15, 295.20, 295.21, 295.22, 295.23, 295.24, 295.25, 295.30, 295.31, 295.32, 295.33, 295.34, 295.35, 295.40, 295.41, 295.42, 295.43, 295.44, 295.45, 295.50, 295.51, 295.52, 295.53, 295.54, 295.55, 295.60, 295.61, 295.62, 295.63, 295.64, 295.65, 295.70, 295.71, 295.72, 295.73, 295.74, 295.75, 295.80, 295.81, 295.82, 295.83, 295.84, 295.85, 295.90, 295.91, 295.92, 295.93, 295.94, 295.95, 298.0, 298.1, 298.4, 298.8 or 298.9

Patients with an active diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period – The following codes would be sufficient to define the Denominator Exclusion of pervasive developmental disorder: F84.0, F84.3, F84.8 or F84.9

For historical reference purposes these ICD-9 codes if documented would be sufficient to define the Denominator Exclusion of pervasive developmental disorder: 299.00, 299.01, 299.10, 299.11, 299.80, 299.81, 299.90 or 299.91

Patients who received hospice or palliative care service any time during denominator identification period or the measure assessment period – The following code would be sufficient to define the Denominator Exclusion of hospice or palliative care: Z51.5

DENOMINATOR NOTE: *Data collection for this measure is structured to align with the Depression Remission at 6 Months measure (Quality ID #411). Data is captured on the same denominator patients and then measuring them at two distinct points in time, both at six months and at twelve months. The fourteen month assessment period is held constant for these two measures. This means that patient is not re-indexing with a high PHQ-9 or PHQ-9M until that measure assessment period is elapsed.*

Denominator Criteria (Eligible Cases) 2:

Patients aged ≥ 18 years

AND

Diagnosis for Major Depression or Dysthymia (ICD-10-CM): F32.0, F32.1, F32.2, F32.3, F32.4, F32.5, F32.9, F33.0, F33.1, F33.2, F33.3, F33.40, F33.41, F33.42, F33.9, F34.1

AND

Patient encounter during the denominator identification period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 99201, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, G0402, G0438, G0439, 99441, 99442, 99443, 99444

AND

Index Event Date PHQ-9 or PHQ-9M Score greater than 9 documented during the twelve month denominator identification period: G9511

AND NOT

DENOMINATOR EXCLUSIONS:

Patients with an active diagnosis of bipolar disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of personality disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period

OR

Patients with an active diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period

OR

Patients who died any time prior to the end of the measure assessment period

OR

Patients who received hospice or palliative care service any time during denominator identification period or the measure assessment period

OR

Patients who were permanent nursing home residents any time during denominator identification period or the measure assessment period

NUMERATOR (SUBMISSION CRITERIA 2):

Adult patients aged 18 and older who achieved remission at twelve months as demonstrated by a twelve month (+/- 60 days) PHQ-9 or PHQ-9M score of less than five

Definitions:

Remission - a PHQ-9 or PHQ-9M score of less than five.

Twelve Months - The point in time from the index event date extending out twelve months then allowing a grace period of sixty days prior to and sixty days after this date. The most recent PHQ-9 or PHQ-9M score less than five obtained during this four month period is deemed as remission at twelve months, values obtained prior to or after this period are not counted as numerator compliant (remission).

Numerator Options:

Performance Met: Adult patients 18 years of age or older with major depression or dysthymia who reached remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5 **(G9509)**

OR

Performance Not Met: Adult patients 18 years of age or older with major depression or dysthymia who did not reach remission at twelve months as demonstrated by a twelve month (+/-60 days) PHQ-9 or PHQ-9M score of less than 5. Either PHQ-9 or PHQ-9M score was not assessed or is greater than or equal to 5 **(G9510)**

RATIONALE:

Adults:

Depression is a common and treatable mental disorder. The Centers for Disease Control and Prevention states that an estimated 6.6% of the U.S. adult population (14.8 million people) experiences a major depressive disorder during any given 12-month period. Additionally, dysthymia accounts for an additional 3.3 million Americans. In 2006 and 2008, an estimated 9.1% of U.S. adults reported symptoms for current depression (Centers for Disease Control and Prevention, 2010).

Persons with a current diagnosis of depression and a lifetime diagnosis of depression or anxiety were significantly more likely than persons without these conditions to have cardiovascular disease, diabetes, asthma and obesity and to be a current smoker, to be physically inactive and to drink heavily (Strine, 2008). People who suffer from depression have lower incomes, lower educational attainment and fewer days working each year, leading to seven fewer weeks of work per year, a loss of 20% in potential income and a lifetime loss for each family who has a depressed family member of $300,000 (Smith, 2010).

The cost of depression (lost productivity and increased medical expense) in the United States is $83 billion each year (Greenberg, 2003).

Adolescents and Adults:

The Centers for Disease Control and Prevention states that during 2009-2012 an estimated 7.6% of the U.S. population aged 12 and over had depression, including 3% of Americans with severe depressive symptoms. Almost 43% of persons with severe depressive symptoms reported serious difficulties in work, home and social activities, yet only 35% reported having contact with a mental health professional in the past year.

Depression is associated with higher mortality rates in all age groups. People who are depressed are 30 times more likely to take their own lives than people who are not depressed and five times more likely to abuse drugs. Depression is the leading cause of medical disability for people aged 14 – 44. Depressed people lose 5.6 hours of productive work every week when they are depressed, fifty percent of which is due to absenteeism and short-term disability.

Adolescents:

In 2014, an estimated 2.8 million adolescents age 12 to 17 in the United States had at least one major depressive episode in the past year. This represented 11.4% of the U.S. population. The same survey found that only 41.2 percent of those who had a Major Depressive Episode received treatment in the past year. The 2013 Youth Risk Behavior Survey of students grades 9 to 12 indicated that during the past 12 months 39.1% (F) and 20.8% (M) indicated feeling sad or hopeless almost every day for at least 2 weeks, planned suicide attempt 16.9% (F) and 10.3% (M), with attempted suicide 10.6% (F) and 5.4% (M). Adolescent-onset depression is associated with chronic depression in adulthood. Many mental health conditions (anxiety, bipolar, depression, eating disorders, and substance abuse) are

evident by age 14. The 12-month prevalence of MDEs increased from 8.7% in 2005 to 11.3% in 2014 in adolescents and from 8.8% to 9.6% in young adults (both P < .001). The increase was larger and statistically significant only in the age range of 12 to 20 years. The trends remained significant after adjustment for substance use disorders and sociodemographic factors. Mental health care contacts overall did not change over time; however, the use of specialty mental health providers increased in adolescents and young adults, and the use of prescription medications and inpatient hospitalizations increased in adolescents. In 2015, 9.7% of adolescents in MN who were screened for depression or other mental health conditions, screened positively.

CLINICAL RECOMMENDATION STATEMENTS:

Adults:

Source: Institute for Clinical Systems Improvement (ICSI) Health Care Guideline for Adult Depression in Primary Care (Trangle, 2016)

Major depression is a treatable cause of pain, suffering, disability and death, yet primary care clinicians detect major depression in only one-third to one-half of their patients with major depression (Williams Jr, 2002; Schonfeld, 1997).

Usual care for depression in the primary care setting has resulted in only about half of depressed adults getting treated (Kessler, 2005) and only 20-40% showing substantial improvement over 12 months (Unutzer, 2002; Katon, 1999).

Recommendations and algorithm notations supporting depression outcomes and duration of treatment according to ICSI's Health Care Guideline:

Recommendation: Clinicians should establish and maintain follow-up with patients. Appropriate, reliable follow-up is highly correlated with improved response and remission scores. It is also correlated with the improved safety and efficacy of medications and helps prevent relapse.

Proactive follow-up contacts (in person, telephone) based on the collaborative care model have been shown to significantly lower depression severity (Unutzer, 2002). In the available clinical effectiveness trials conducted in real clinical practice settings, even the addition of a care manager leads to modest remission rates (Trivedi, 2006; Unutzer, 2002). Interventions are critical to educating the patient regarding the importance of preventing relapse, safety and efficacy of medications, and management of potential side effects. Establish and maintain initial follow-up contact intervals (office, phone, other) (Hunkeler, 2000; Simon, 2000).

PHQ-9 as monitor and management tool. The PHQ-9 is an effective management tool, as well, and should be used routinely for subsequent visits to monitor treatment outcomes and severity. It can also help the clinician decide if/how to modify the treatment plan (Duffy, 2008; Lowe, 2004). Using a measurement-based approach to depression care, PHQ-9 results and side effect evaluation should be combined with treatment algorithms to drive patients toward remission. A five-point drop in PHQ-9 score is considered the minimal clinically significant difference (Trivedi, 2009).

Every time that the PHQ-9 is assessed, suicidality is assessed, as well. If the suicidality was indeed of high risk, urgent referral to crisis specialty health care is advised. In case of low suicide risk, the patient can proceed with treatment in the primary care practice (Huijbregts, 2013).

Care Algorithm: Has patient reached remission?

The goals of treatment should be to achieve remission, reduce relapse and recurrence, and return to previous level of occupational and psychosocial function.

Full remission is defined as a two-month period devoid of major depressive signs and symptoms (American Psychiatric Association, 2013). If using a PHQ-9 tool, remission translates to PHQ-9 score of less than 5 (Kroenke, 2001). Results from the STAR*D study showed that remission rates lowered with more treatment steps, but the overall cumulative rate was 67% (Rush, 2006).

Response is defined as a 50% or greater reduction in symptoms (as measured on a standardized rating scale). Partial response is defined as a 25-50% reduction in symptoms. This definition is based on how the depression literature defines response.

Response and remission take time. In the STAR*D study, longer times than expected were needed to reach response or remission. In fact, one-third of those who ultimately responded did so after six weeks. Of those who achieved remission by Quick Inventory of Depressive Symptomatology (QIDS), 50% did so only at or after six weeks of treatment (Trivedi, 2006). If the primary care clinician is seeing some improvement, continue working with that patient to augment or increase dosage to reach remission. This can take up to three months.

A reasonable criterion for extending the initial treatment: assess whether the patient is experiencing a 25% or greater reduction in baseline symptom severity at six weeks of therapeutic dose. If the patient's symptoms are reduced by 25% or more, but the patient is not yet at remission, and if medication has been well tolerated, continue to prescribe. Raising the dose is recommended (Trivedi, 2006).

Improvement with psychotherapy is often a bit slower than with pharmacotherapy. A decision regarding progress with psychotherapy and the need to change or augment this type of treatment may require 8 to 10 weeks before evaluation (Schulberg, 1998).

Care Algorithm: Continuation and Maintenance Treatment Duration Based on Episode

Acute therapy is the treatment phase focused on treating the patient to remission. Acute therapy typically lasts 6-12 weeks but technically lasts until remission is reached (American Psychiatric Association, 2010). Full remission is defined as a two-month period devoid of major depressive signs and symptoms (American Psychiatric Association, 2013).

Continuation therapy is the four-to-nine month period beyond the acute treatment phase during which the patient is treated with antidepressants, psychotherapy, ECT or other somatic therapies to prevent relapse (American Psychiatric Association, 2010). Relapse is common within the first six months following remission from an acute depressive episode; as many as 20-85% of patients may relapse (American Psychiatric Association, 2010).

This measure assesses achievement of remission, which is a desired outcome of effective depression treatment and monitoring.
Adult Depression in Primary Care - Guideline Aims
- Increase the percentage of patients with major depression or persistent depressive disorder who have improvement in outcomes from treatment for major depression or persistent depressive disorder.
- Increase the percentage of patients with major depression or persistent depressive disorder who have follow-up to assess for outcomes from treatment.
- Improve communication between the primary care physician and the mental health care clinician (if patient is co-managed).

Adolescents:
Source: American Academy of Child and Adolescent Psychiatry Practice Parameter for the Assessment and Treatment of Children and Adolescents with Depressive Disorders (2007)
http://www.jaacap.com/article/S0890-8567(09)62053-0/pdf

Recommendations:
Recommendations supporting depression outcomes and duration of treatment according to AACAP guideline:

- Treatment of depressive disorders should always include an acute and continuation phase; some children may also require maintenance treatment. The main goal of the acute phase is to achieve response and ultimately full symptomatic remission (definitions below).
- Each phase of treatment should include psychoeducation, supportive management, and family and school involvement.
- Education, support, and case management appear to be sufficient treatment for the management of depressed children and adolescents with an uncomplicated or brief depression or with mild psychosocial impairment.
- For children and adolescents who do not respond to supportive psychotherapy or who have more complicated depressions, a trial with specific types of psychotherapy and/or antidepressants is indicated.

Definitions:
Response: No symptoms or a significant reduction in depressive symptoms for at least 2 weeks

Remission: A period of at least 2 weeks and <2 months with no or few depressive symptoms

Recovery: Absence of significant symptoms of depression (e.g., no more than 1 to 2 symptoms) for greater than 2 months

Relapse**:** A DSM episode of depression during the period of remission

Recurrence: The emergence of symptoms of depression during the period of recovery (a new episode)

Sources:
Guidelines for Adolescent Depression in Primary Care (GLAD-PC) (2007) http://www.glad-pc.org/
Guidelines for adolescent depression in primary care (GLAD-PC): II. Treatment and ongoing management www.pediatrics.org/cgi/content/full/120/5/e1313

Recommendations supporting depression outcomes and duration of treatment according to GLAD-PC:

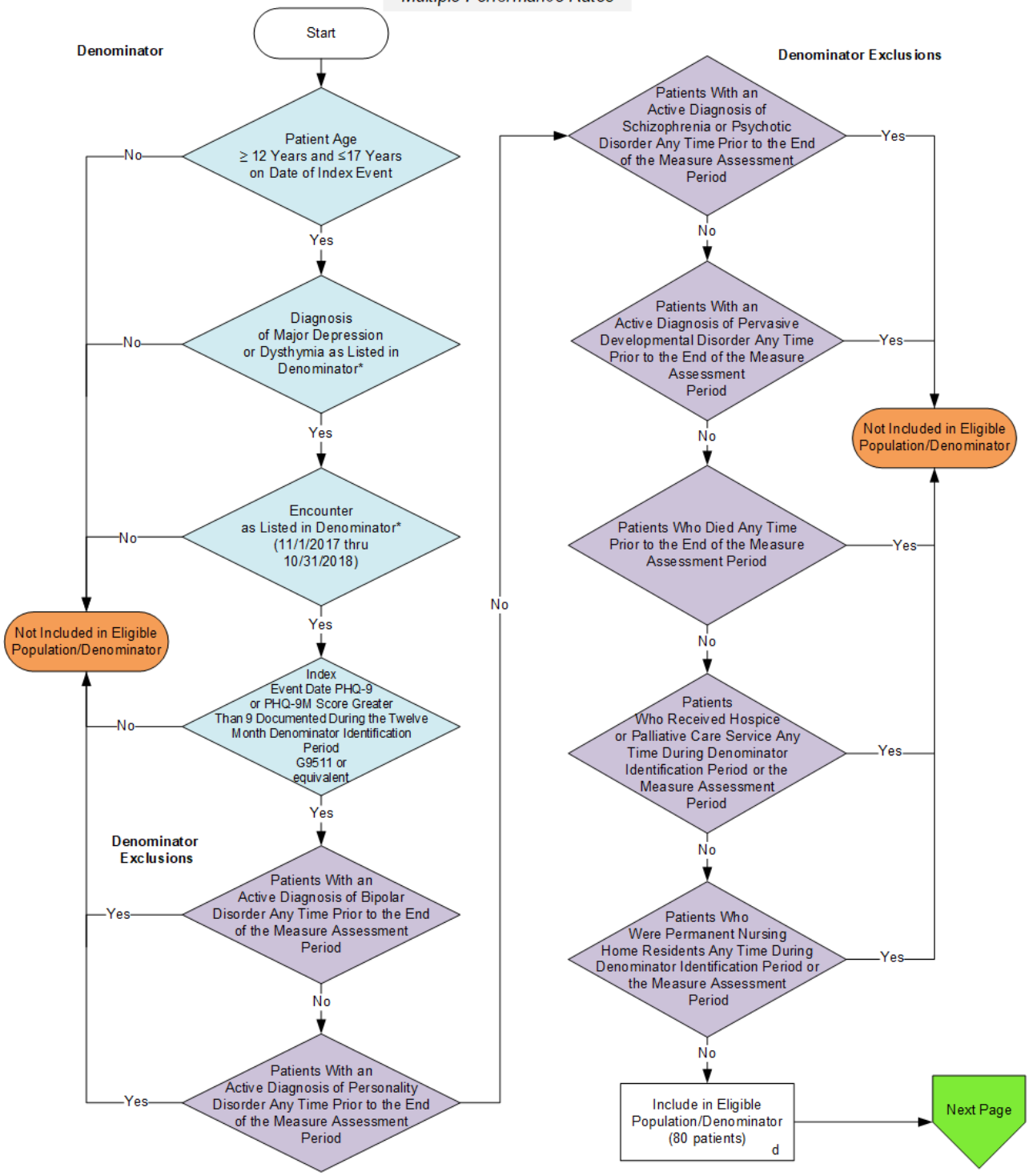
Recommendations for Ongoing Management of Depression:
- Mild depression: consider a period of active support and monitoring before starting other evidence based treatment
- Moderate or severe major clinical depression or complicating factors:
  - consultation with mental health specialist with agreed upon roles
  - evidence based treatment (CBT or IPT and/or antidepressant SSRI)
- Monitor for adverse effects during antidepressant therapy
  - clinical worsening, suicidality, unusual changes in behavior
- Systematic and regular tracking of goals and outcomes
  - improvement in functioning status and resolution of depressive symptoms

Regardless of the length of treatment, all patients should be monitored on a monthly basis for 6 to 12 months after the full resolution of symptoms

2019 Clinical Quality Measure Flow for Quality ID #370 NQF 0710: Depression Remission at Twelve Months

Submission Criteria One

Multiple Performance Rates

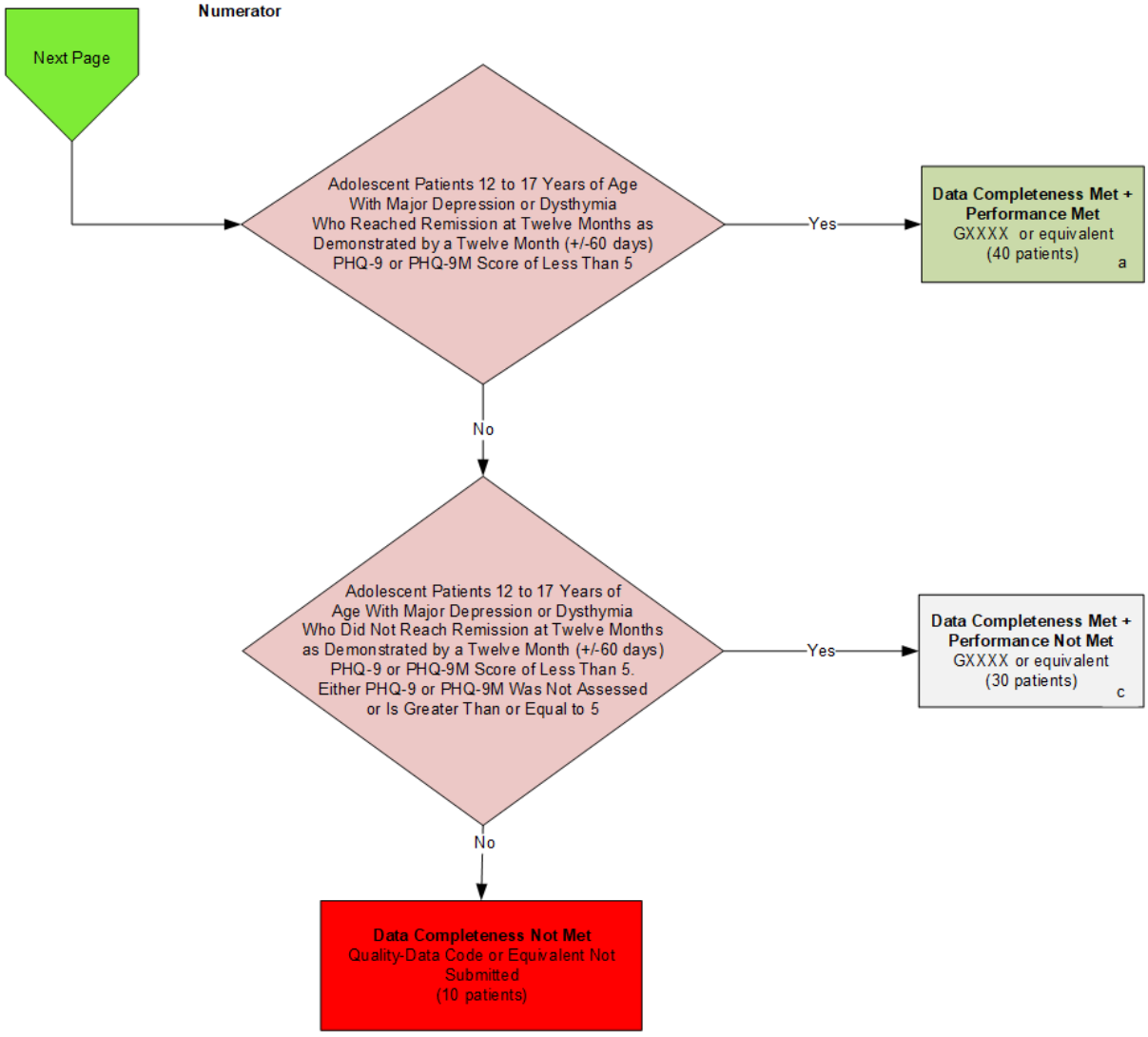


*See the posted Measure Specification for specific coding and instructions to submit this measure.
Note: Submission Frequency: Patient-Process

v3

2019 Clinical Quality Measure Flow for Quality ID #370 NQF 0710: Depression Remission at Twelve Months Submission Criteria One

Multiple Performance Rates



SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

*See the posted Measure Specification for specific coding and instructions to submit this measure.
Note: Submission Frequency: Patient-Process

v3

2019 Clinical Quality Measure Flow for Quality ID #370 NQF 0710: Depression Remission at Twelve Months Submission Criteria Two

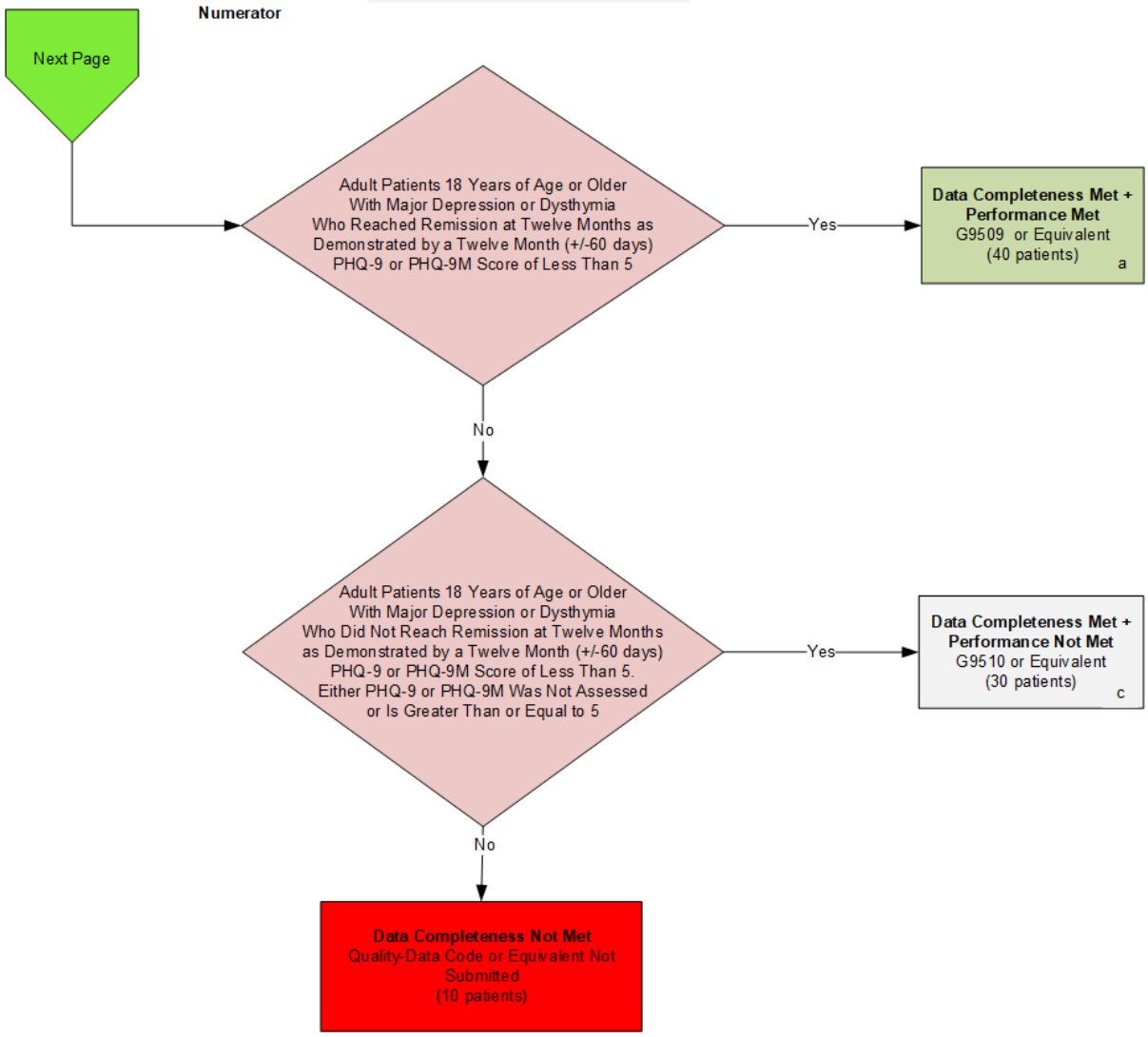
Multiple Performance Rates

*See the posted Measure Specification for specific coding and instructions to submit this measure.
Note: Submission Frequency: Patient-Process

v3

2019 Clinical Quality Measure Flow for Quality ID #370 NQF 0710: Depression Remission at Twelve Months Submission Criteria Two

*Multiple Performance Rates****



SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

*See the posted Measure Specification for specific coding and instructions to submit this measure.
Note: Submission Frequency: Patient-Process

v3

2019 Clinical Quality Measure Flow for Quality ID #370 NQF 0710: Depression Remission at Twelve Months

This Measure Has Two Submission Criteria. All Performance Rates Must Be Submitted If You Meet Denominator Criteria For Both Adolescent and Adult Patients As Defined Within The Measure Specification*

Multiple Performance Rates

Submission Criteria #1 Adolescent Patients Aged 12 to 17 Years of Age Who Achieved Remission at Twelve Months as Demonstrated by a Twelve Month (+/- 60 Days) PHQ-9 or PHQ-9M Score of Less Than Five

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

Submission Criteria #2 Adult Patients Aged 18 Years and Older Who Achieved Remission at Twelve Months as Demonstrated by a Twelve Month (+/- 60 Days) PHQ-9 or PHQ-9M Score of Less Than Five

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

*See the posted Measure Specification for specific coding and instructions to submit this measure.
Note: Submission Frequency: Patient-Process

2019 Clinical Quality Measure Flow Narrative for Quality ID #370 NQF 0710: Depression Remission at Twelve Months

Multiple Performance Rates

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

Submission Criteria #1

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is Greater Than or Equal to 12 Years and Less Than or Equal to 17 Years on Date of Index Event equals No during the Denominator Identification Period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is Greater Than or Equal to 12 Years and Less Than or Equal to 17 Years on Date of Index Event equals Yes during the Denominator Identification Period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of Major Depression or Dysthymia as Listed in the Denominator Identification Period equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Major Depression or Dysthymia as Listed in the Denominator Identification Period equals Yes, proceed to check Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator Identification Period equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator Identification Period equals Yes, proceed to check Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period.
5. Check Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period:
    a. If Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period 9 equals No, do not include in Eligible Population. Stop Processing.
    b. If Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period equals Yes, proceed to check Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period
6. Check Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period:
    a. If Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period.

b. If Patients With an Active Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

7. Check Patients With Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period:

    a. If Patients With Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period.

    b. If Patients With an Active Personality Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

8. Check Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period:

    a. If Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period.

    b. If Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

9. Check Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period:

    a. If Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients Who Died Any Time Prior to the End of the Measure Assessment Period.

    b. If Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

10. Check Patients Who Died Any Time Prior to the End of the Measure Assessment Period:

    a. If Patients Who Died Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period.

    b. If Patients Who Died Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

11. Check Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period:

    a. If Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period equals No, proceed to check Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period.

    b. If Patients Who Received Hospice or Palliative Care Services Any Time During Denominator Identification Period or the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

12. Check Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period:

    a. If Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period equals No, include in Eligible Population.

    b. If Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

13. Denominator Population:

    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.

14. Start Numerator

15. Check Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5:

    a. If Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5 equals Yes, include in Data Completeness and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

    c. If Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5 equals No, proceed to check Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5. Either PHQ-9 or PHQ-9M Was Not Assessed or is Greater Than or Equal to 5.

16. Check Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5. Either PHQ-9 or PHQ-9M Was Not Assessed or is Greater Than or Equal to 5:

    a. If Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5. Either PHQ-9 or PHQ-9M Was Not Assessed or is Greater Than or Equal to 5 equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If Adolescent Patients 12 to 17 Years of Age With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than 5. Either PHQ-9 or PHQ-9M Was Not Assessed or is Greater Than or Equal to 5 equals No, proceed to check Data Completeness Not Met.

17. Check Data Completeness Not Met:

a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation

SAMPLE CALCULATIONS:

Data Completeness =

Performance Met (a=40 patients) + Performance Not Met (c=30 patients) / Eligible Population / Denominator (d=80 patients) = 70 patients / 80 patients = **87.50%**

Performance Rate=

Performance Met (a=40 patients) / Data Completeness Numerator (70 patients) = 40 patients / 70 patients = **57.14%**

2019 Clinical Quality Measure Flow Narrative for Quality ID #370 NQF 0710: Depression Remission at Twelve Months

Multiple Performance Rates

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

Submission Criteria #2

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Index Event equals No during the Denominator Identification Period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years on Date of Index Event equals Yes during the Denominator Identification Period, proceed to check Patient Diagnosis.
3. Check Patient Diagnosis:
    a. If Diagnosis of Major Depression or Dysthymia as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Diagnosis of Major Depression or Dysthymia as Listed in the Denominator equals Yes, proceed to check Current Encounter Performed.
4. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Index Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period.
5. Check Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period:
    a. If Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period 9 equals No, do not include in Eligible Population. Stop Processing.
    b. If Index Event Date PHQ-9 or PHQ-9M Score Greater Than 9 Documented During the Twelve Month Denominator Identification Period equals Yes, proceed to check Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period.
6. Check Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period:
    a. If Patients With an Active Diagnosis of Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period.
    b. If Patients With an Active Bipolar Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.
7. Check Patients With an Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period:

a. If Patients With an Active Diagnosis of Personality Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period.

b. If Patients With an Active Personality Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

8. Check Patients With Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment (Performance) Period:

    a. If Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period.

    b. If Patients With an Active Diagnosis of Schizophrenia or Psychotic Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

9. Check Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period:

    a. If Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients Who Died Any Time Prior to the End of the Measure Assessment Period.

    b. If Patients With an Active Diagnosis of Pervasive Developmental Disorder Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

10. Check Patients Who Any Time Died Prior to the End of the Measure Assessment Period:

    a. If Patients Who Died Any Time Prior to the End of the Measure Assessment Period equals No, proceed to check Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period.

    b. If Patients Who Died Any Time Prior to the End of the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

11. Check Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period:

    a. If Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period equals No, proceed to check Patients Who were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period.

    b. If Patients Who Received Hospice or Palliative Care Service Any Time During Denominator Identification Period or the Measure Assessment Period equals Yes, do not include in Eligible Population. Stop Processing.

12. Check Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period:

    a. If Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period equals No, include in Eligible Population.

b. If Patients Who Were Permanent Nursing Home Residents Any Time During Denominator Identification Period or the Measure Assessment Period equals Yes, do not include in Eligible Patient Population. Stop Processing.

13. Denominator Population:

    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.

14. Start Numerator

15. Check Adult Patient 18 Years of Age or Older With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five:

    a. If Adult Patient 18 Years of Age or Older With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five equals Yes, include in Data Completeness and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

    c. If Adult Patient 18 Years of Age or Older With Major Depression or Dysthymia Who Reached Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five equals No, proceed to check Adult Patients 18 Years of Age or Older With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/- 60 days) PHQ-9 or PHQ-9M Score of Less Than Five. Either PHQ-9 or PHQ-9M Score Was Not Assessed or is Greater Than or Equal to 5.

16. Check Adult Patients 18 Years of Age or Older With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five. Either PHQ-9 or PHQ-9M Score Was Not Assessed or is Greater Than or Equal to 5:

    a. If Adult Patients 18 Years of Age or Older With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five. Either PHQ-9 or PHQ-9M Score Was Not Assessed or is Greater Than or Equal to 5 equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If Adult Patients 18 Years of Age or Older With Major Depression or Dysthymia Who Did Not Reach Remission at Twelve Months as Demonstrated by a Twelve Month (+/-60 days) PHQ-9 or PHQ-9M Score of Less Than Five. Either PHQ-9 Score Was Not Assessed or is Greater Than or Equal to 5 equals No, proceed to Data Completeness Not Met.

17. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

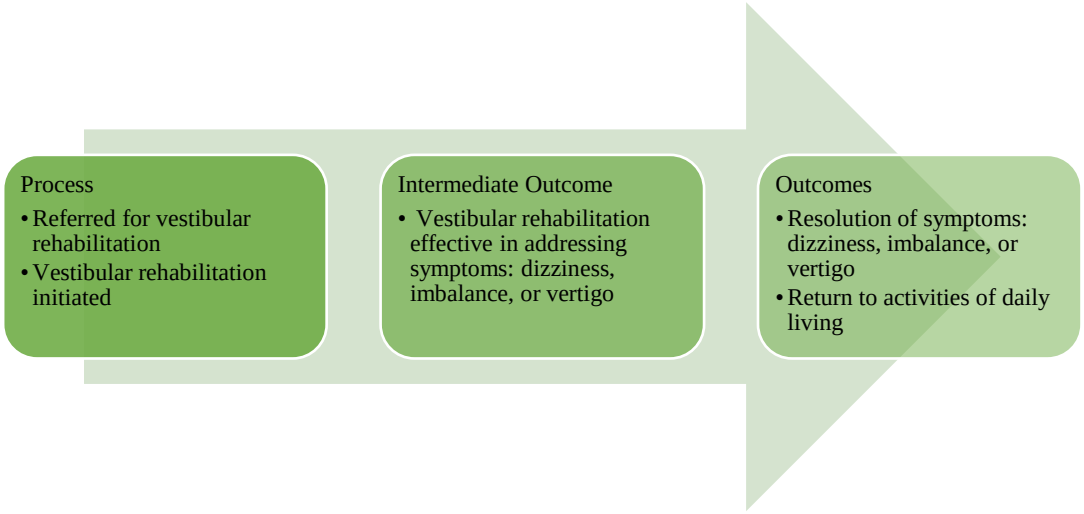
Performance Rate=

Performance Met (a=40 patients) = 40 patients = **57.14%**

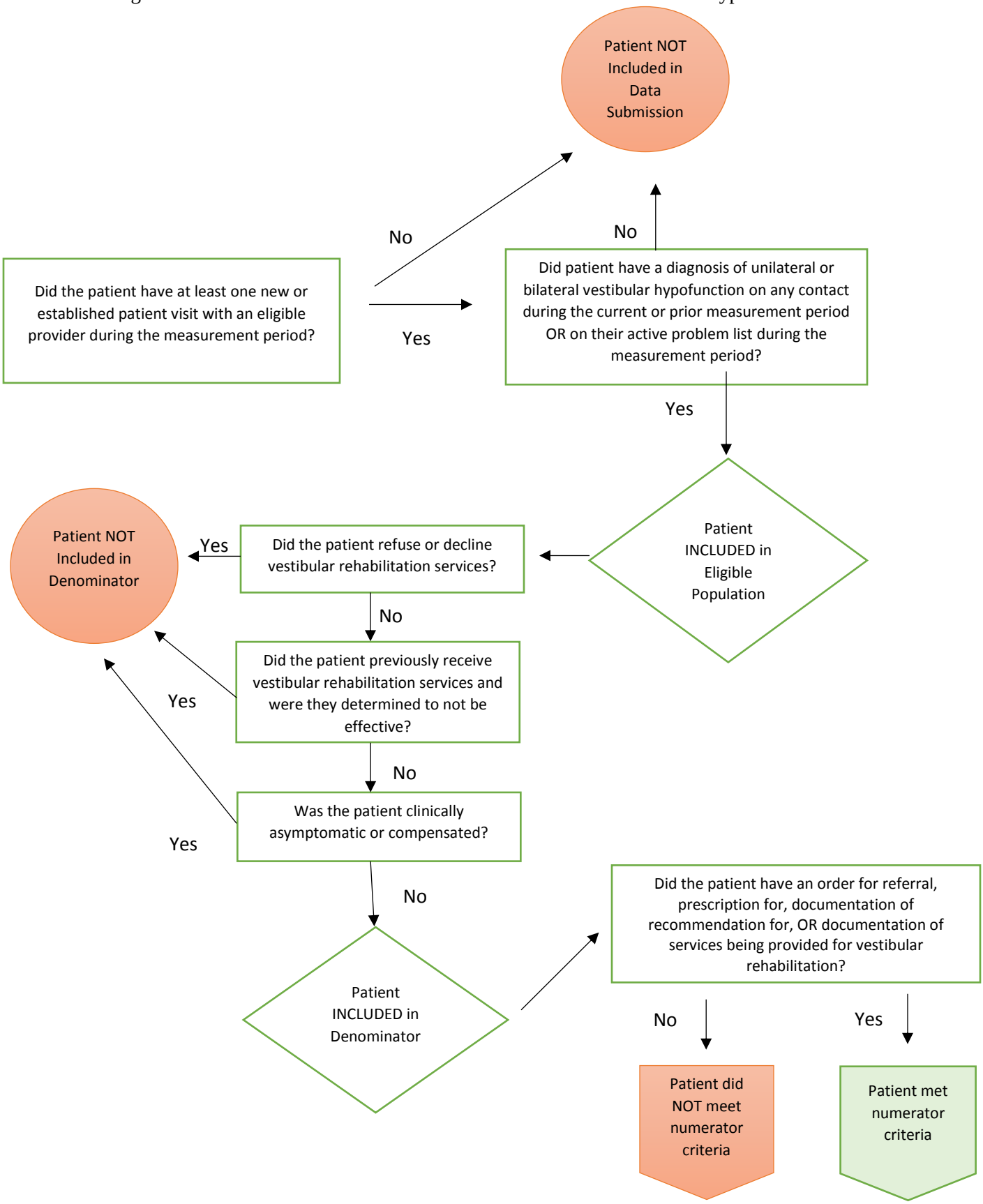
Data Completeness Numerator (70 patients) = 70 patients

Vestibular Rehabilitation for Unilateral or Bilateral Vestibular Hypofunction

Measure Title	Vestibular Rehabilitation for Unilateral or Bilateral Vestibular Hypofunction	
Description	Percentage of patients diagnosed with unilateral or bilateral vestibular hypofunction who were referred, prescribed, recommended for, or received vestibular rehabilitation.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN), Physical Therapist, Occupational Therapist, Audiologist
	Care Setting(s)	Outpatient
	Ages	All
	Event	Office Visit
	Diagnosis	Unilateral or bilateral vestibular hypofunction
Denominator	Patients diagnosed with unilateral or bilateral vestibular hypofunction	
Numerator	Patients with an order for a referral to physical therapy or occupational therapy for vestibular rehabilitation, OR prescription for vestibular rehabilitation, OR documentation that vestibular rehabilitation was recommended, OR documentation that vestibular rehabilitation was provided.	
Required Exclusions	None	
Allowable Exclusions	• Notation that patient has refused or declined vestibular rehabilitation services. (To be captured via search terms, this exclusion should be written as "patient refuses (or declines) vestibular rehabilitation services.") • Documentation of prior vestibular rehabilitation services provided and determined to not be effective. • Clinically asymptomatic or compensated in unilateral or bilateral vestibular hypofunction. (To be captured via search terms, this exclusion should be written as "compensated" or "asymptomatic" or "clinically asymptomatic")	
Exclusion Rationale	It is appropriate to exclude patients who decline or refuse vestibular rehabilitation, as such treatment must be engaged in voluntarily to be effective. Additionally, if vestibular rehabilitation services were provided previously without success there is a low likelihood further vestibular rehabilitation would be an effective treatment. Finally, if there is no evidence that patients are decompensated or symptomatic treatment via vestibular rehabilitation is not necessary.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Provider or System	
Risk Adjustment	Not Applicable	
For Process Measures Relationship to Desired Outcome	Strong guideline statements support referral to vestibular rehabilitation for patients with chronic unilateral and bilateral vestibular hypofunction.(1) Vestibular rehabilitation would improve quality of life, reduce fall risk, accelerate resolution of symptoms and increase recovery of balance, return to activities of daily living, and decrease disability and morbidity.(1) A 2015 Cochrane review found that, "There is moderate to strong evidence that vestibular rehabilitation is a safe, effective management for unilateral peripheral vestibular dysfunction, based on a number of high-quality randomised controlled trials. There is moderate evidence that vestibular rehabilitation resolves symptoms and improves functioning in the medium term."(2)	

	
Opportunity to Improve Gap in Care	Practice variations exist in the referral of patients to vestibular rehabilitation.(3-5) It is hoped that by measuring referral rates practice variations will decrease.
Harmonization with Existing Measures	No similar measures known
References	1. Hall CD, Herdman SJ and Whitney, SL et al, Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: An Evidence-Based Clinical Practice Guideline, J Neurol Phys Ther. 2016; 40: 124-155. 2. McDonnell MN, Hillier SL. Vestibular rehabilitation for unilateral peripheral vestibular dysfunction. Cochrane Database of Systematic Reviews 2015, Issue 1. Art. No.: CD005397. DOI: 10.1002/14651858.CD005397.pub4. 3. Bush ML and Dougherty W. Assessment of Vestibular Rehabilitation Therapy Training and Practice Patterns. J Community Health 2015;40(4):802-807. 4. Lee A, Jones G, Corcoran J, et al. A UK hospital based multidisciplinary balance clinic run by allied health professionals: first year results. The Journal of Laryngology & Otology 2011;125:661-667. 5. Cohen HS, Gottshall KR, Grazino M, et al. International survey of vestibular rehabilitation therapists by the Barany Society Ad Hoc Committee on Vestibular Rehabilitation Therapy. Journal of Vestibular Research. 2009;19:15-20.

Flow Chart Diagram: Vestibular Rehabilitation for Unilateral or Bilateral Vestibular Hypofunction



Code System	Code	Code Description
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
CPT	92537-92538	Caloric vestibular testing
CPT	92540, 92541, 92542, 92544, 92545	Basic vestibular evaluation, including (and listed individually) spontaneous nystagmus, positional nystagmus, optokinetic nystagmus, oscillating tracking
CPT	92546	Sinusoidal vertical axis rotational testing
CPT	92548	Computerized dynamic posturography
ICD-10	H83.2X1	Vestibular hypofunction (Labyrinthine dysfunction, right ear)
ICD-10	H83.2X2	Vestibular hypofunction (Labyrinthine dysfunction, left ear)
ICD-10	H83.2X3	Vestibular hypofunction (Labyrinthine dysfunction, bilateral)
ICD-10	H83.2X9	Vestibular hypofunction (Labyrinthine dysfunction, unspecified ear)
ICD-10	H81.20	Vestibular neuronitis unspecified ear
ICD-10	H81.21	Vestibular neuronitis right ear
ICD-10	H81.22	Vestibular neuronitis left ear
ICD-10	H81.23	Vestibular neuronitis bilateral
ICD-10	H81.8X1	Other disorders of vestibular function right ear
ICD-10	H81.8X2	Other disorders of vestibular function left ear
ICD-10	H81.8X3	Other disorders of vestibular function bilateral
ICD-10	H81.8X9	Other disorders of vestibular function unspecified ear
ICD-10	H81.90	Unspecified disorder of vestibular function unspecified ear
ICD-10	H81.91	Unspecified disorder of vestibular function right ear
ICD-10	H81.92	Unspecified disorder of vestibular function left ear
ICD-10	H81.93	Unspecified disorder of vestibular function bilateral

COMPOSITE MEASURE

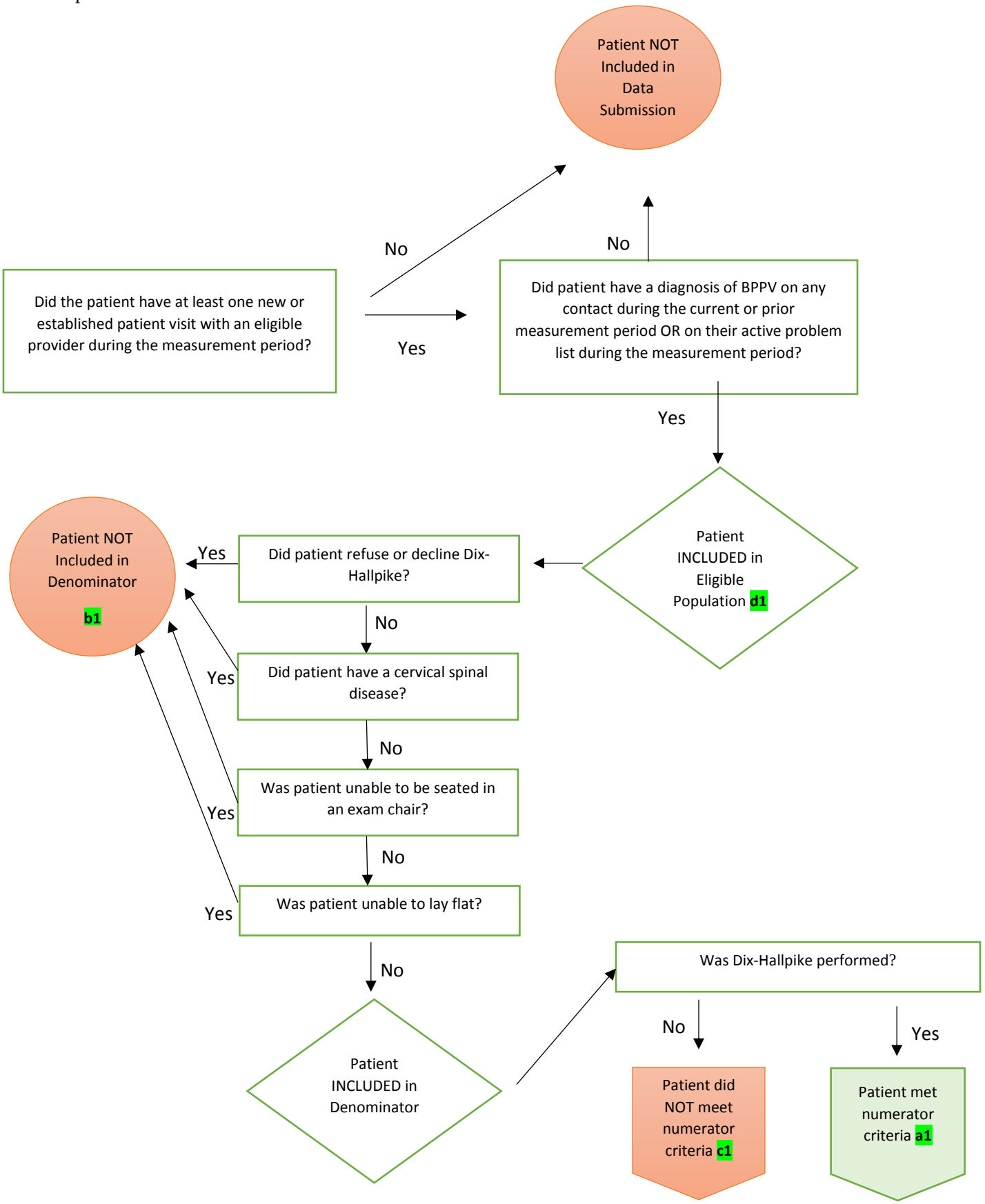
BPPV: Dix-Hallpike and Canalith Repositioning

Measure Title	BPPV: Dix-Hallpike and Canalith Repositioning	
Description	Percentage of patients with BPPV who had a Dix-Hallpike maneuver performed AND who had therapeutic canalith repositioning procedure (CRP) performed or who were referred for physical therapy or to a provider who can perform CRP if identified with posterior canal BPPV	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN), Physical Therapist, Occupational Therapist, Audiologist
	Care Setting(s)	Outpatient
	Ages	All
	Event	Office Visit
	Diagnosis	BPPV
Denominator	1. Patients diagnosed with BPPV 2. Patients diagnosed with posterior canal BPPV	
Numerator	1. Patients who had a Dix-Hallpike maneuver performed 2. Patients who had therapeutic CRP performed or were referred to a provider who can perform CRP, or were prescribed or referred for physical therapy	
Required Exclusions	For Denominator 2 Only: • Patients diagnosed with anterior or lateral BPPV • Patients with unspecified canal BPPV	
Allowable Exclusions	• Patient has a history of BPPV, but is not currently experiencing positional dizziness/vertigo consistent with active BPPV. • Patient has refused or declined Dix-Hallpike maneuver and/or CRP. (To be captured via search terms, this exclusion should be written as "patient refuses (or declines) Dix-Hallpike or CRP." • Patient has cervical spinal disease (i.e., cervical stenosis, severe kyphoscoliosis, limited cervical range of motion, Down's syndrome, severe rheumatoid arthritis, cervical radiculopathies, Paget's disease, ankylosing spondylitis, low back dysfunction, spinal cord injuries, spinal fractures) • Patient unable to lay flat (i.e., severe heart disease) • Patient has severe atherosclerotic disease or recent dissection involving the anterior or posterior cerebral circulation. • Unable to be seated in exam chair (i.e., morbidly obese), or maneuver cannot be safely performed given morbid obesity Key phrases to meet the measure via Registry search function include: • "No active vertigo" • "No active dizziness" • "No current vertigo" • "No current dizziness" • "BPPV not active" • "Patient asymptomatic" • "Patient asymptotic" • "Dix-Hallpike not indicated" • "DH not indicated" • "CRP not indicated" (For Component 2 only)	
Measure Scoring	SEE CHART BELOW:	

	Date Completeness = $\frac{\text{Performance Met (a1+a2) + Denominator Exceptions (b1+b2)+Performance Not Met (c1+c2)}}{\text{Eligible Population (d1+d2)}}$ Performance Rate = $\frac{\text{Performance Met (a1+a2)}}{\text{Date Completeness Numerator – Denominator Exceptions (b1+b2)}}$
Interpretation of Score	Higher Score Indicates Better Quality
Measure Type	Process
Level of Measurement	Provider
Risk Adjustment	Not Applicable

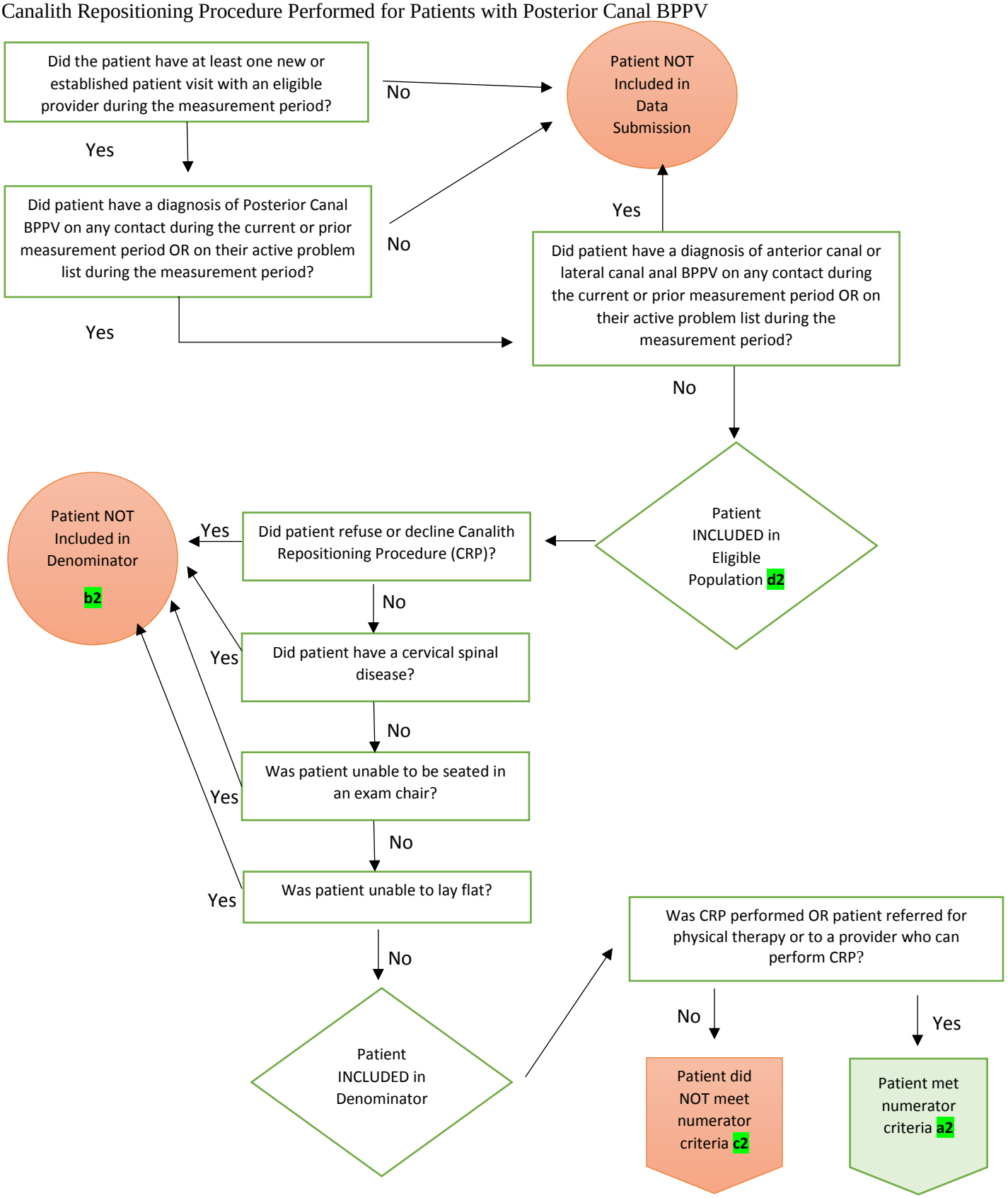
Flow Chart Diagram: Reporting Criteria 1:

Dix-Hallpike Maneuver Performed for Patients with BPPV

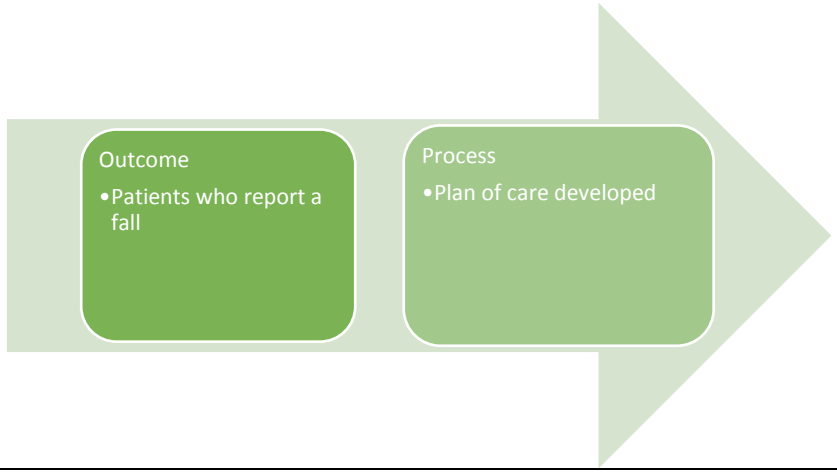


Flow Chart Diagram: Reporting Criteria 2

Canalith Repositioning Procedure Performed for Patients with Posterior Canal BPPV

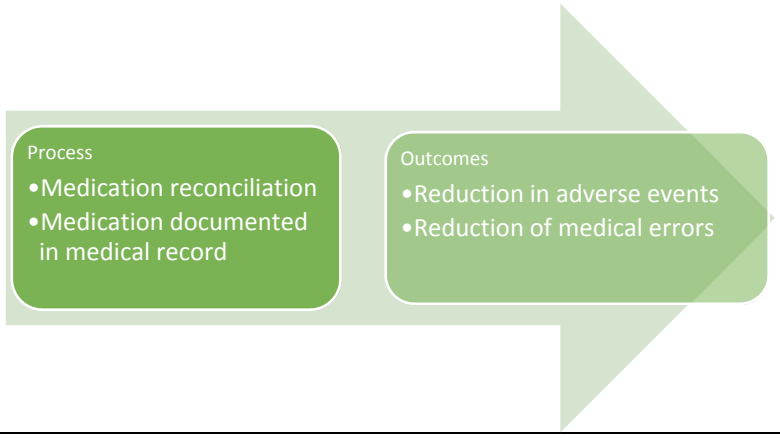


Measure Title	Falls outcome	
Description	Percentage of patients that reported a fall during the measurement period	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Residential (SNF, home care)
	Ages	All patients
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to a residential facility.
	Diagnosis	A neurological condition
Denominator	Patients aged 18 and older with a neurological condition	
Numerator	Patients who report a fall* occurred during the measurement period *Fall: A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, overwhelming external force, or overwhelming environmental hazards To perform well on this measure, we suggest using key phrases: no fall or trauma, denies any falls, [number] + falls since last visit	
Required Exclusions	None	
Allowable Exclusions	A. • Patient is bed ridden, immobile, not ambulatory • No documentation of falls inquiry or discussion during patient visit	
Exclusion Rationale	Patients who are not mobile are not at risk of falling. A patient does not need to be asked about falls if they are nonambulatory. A visit where a procedure is performed is typically preceded by an office visit where falls would be discussed. A patient should be excluded if they were not asked about falls.	
Measure Scoring	Percentage	
Interpretation of Score	A. Lower Score Indicates Better Quality	
Measure Type	A. Outcome	
Level of Measurement	Provider, Practice	
Risk Adjustment	*See Appendix A AAN Statement on Comparing Outcomes of Patients* *This outcome measure is being made available in advance of development of a risk adjustment strategy. The work group identified the following potential data elements that may be used in a risk adjustment methodology for this measure:* • Comorbidities	

For Process Measures Relationship to Desired Outcome	
Opportunity to Improve Gap in Care	In people aged 65 years and older, falls are one of the leading causes of death[1]. However, patients with neurological conditions are often younger and are at an increased risk of falling due to their disease symptomology. 127,457,106 non-fatal falls were recorded from 2001 to 2015[2]. For those that were hospitalized due to the fall, the cost is approximately $39,000 per patient[2]. There is evidence that vitamin D supplementation may play a role in preventing falls or preventing fractures. However, there is not enough evidence to support it for all neurological patients at this time.
Harmonization with Existing Measures	This is a variation of the NCQA measure (NQF# 0101). A separate measure is needed to capture the wider age range of neurology patients that often experience falls earlier in life due to their decreased motor function. The AAN has talked with NCQA about adjusting the denominator of their measure to capture the younger neurology population. This was not possible as treatment plans for those over 65 compared vary from the treatment plan for those younger. As such, a separate measure is necessary.
References	1. National Committee for Quality Assurance (NCQA) http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/fall-risk 2. Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. Available at: http://www.cdc.gov/ncipc/wisqars/ Supporting evidence: • The American Geriatrics Society. AGS Clinical Practice Guideline: Prevention of Falls in Older Persons (2010). • The U.S. Preventive Services Task Force. Prevention of Falls in Community Dwelling Adults. May 2012. Accessed 2/27/2015. http://www.uspreventiveservicestaskforce.org/uspstf/uspsfalls.htm • National Center for Injury Prevention and Control. 2008. "Preventing Falls: How to Develop Community-based Fall Prevention Programs for Older Adults." Atlanta, GA: Center for Disease Control and Prevention. • National Council on Aging. 2012. "Fall Prevention: Fact Sheet." https://www.ncoa.org/wp-content/uploads/Fact-Sheet_Falls-Prevention.pdf

	• Saverino A, Moriarty A, Playford D. The risk of falling in young adults with neurological conditions: a systematic review. Disability and Rehabilitation 2014; 36:963-977. • Matsuda PN, Verall A, Finlayson M, et al. Falls among adults aging with disability. Archives of Physical Medicine and Rehabilitation 2015; 96:464-71. • Thurman D, Steven J, Rao J. Practice Parameter: Assessing patients in a neurology practice for risk of falls (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2008; 70:473-479.

Measure Title	Pediatric Medication Reconciliation	
Description	Percentage of pediatric patients who had a medication review at every encounter and a medication list present in the medical record.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN), Clinical Pharmacist
	Care Setting(s)	• Outpatient, • On admission to inpatient or residential facility, • ED and Urgent Care
	Ages	All patients 0-17 years of age
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to an inpatient or residential facility, seen for consultation in the ED or urgent care.
	Diagnosis	A neurologic condition
Denominator	All patients 0-17 years of age	
Numerator	Medication review+ conducted at every encounter* during the measurement year and the presence of a medication list^ in the medical record. +Medication review is a review of all patient's medications, including prescription medications, over-the-counter (OTC) medications and herbal or supplemental therapies by a prescribing provider or clinical pharmacist *Encounter: Face-to-face visit with provider. Includes CPT codes 99201-99205, 99211-99215, 99241-99245. ^Medication list: current medication in the medical record and must contain the medication name, and dosage, and frequency, and route of administration. To perform well on this measure, we suggest using key phrases: Medication review completed, medication list updated, medication list up to date	
Required Exclusions	None	
Allowable Exclusions	• Patient and/or caregiver is unable or unwilling to do this activity. • Procedure visit (i.e., EEG, nerve conduction study) where no sedation occurs.	
Exclusion Rationale	It is appropriate to exclude patients who decline or are unwilling to participate in medication reconciliation. A visit where a procedure is performed is typically preceded by an office visit where medication reconciliation would have been completed.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Provider, Practice, System	
Risk Adjustment	N/A	

For Process Measures Relationship to Desired Outcome	
Opportunity to Improve Gap in Care	Medication reconciliation reduces the risk of medication errors and supports the management of patients with chronic conditions[1]. Polypharmacy increases the complexity of medication errors. In addition, to review at every encounter, all patients should have medication list reviewed and updated as appropriate at time of discharge from inpatient facilities.
Harmonization with Existing Measures	This is a variation of the NCQA measure on medication review for adults 66 years of age and older[5]. A modification is needed to take neurology patients into account who are generally younger but still have complicated conditions with comorbidities and polypharmacy. Additionally, many measures in CMS' MIPS payment program include similar measures for those age 18 and above. The Work Group felt it was necessary to include children as many pediatric neurologic conditions also involve polypharmacy.
References	1. National Institute of Clinical Excellent. Medicines optimization: the safe and effective use of medicines to enable the best possible outcomes. Supporting Evidence: • Administration on Aging (AOA). A profile of older Americans. Washington (DC): U.S. Department of Health and Human Services; 2009. 15 p. • Bikowski RM, Ripsin CM, Lorraine VL. Physician-patient congruence regarding medication regimens. J Am Geriatr Soc. 2001 Oct;49(10):1353-7. • Chodosh J, Solomon DH, Roth CP, Chang JT, MacLean CH, Ferrell BA, Shekelle PG, Wenger NS. The quality of medical care provided to vulnerable older patients with chronic pain. J Am Geriatr Soc. 2004 May;52(5):756-61. • National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p. • Task Force on Medicines Partnership. The national collaborative medicines management services programme. Room for review. A guide to medication review. [internet]. 2002. • Sorensen, L., J.A. Stokes, D.M. Purdie, M. Woodward, R. Elliott, M.S. Roberts. Medication reviews in the community: results of a randomized, controlled effectiveness trial. Br. J. Clin. Pharmacol. 2004. 648-64. • Nassaralla CL, Naessens JM, Chaudhry R, et al. Implementation of a medication reconciliation process in an ambulatory internal medicine clinic. Qual Saf Health Care 2007;16: 90-94. • Pronovost P, Weast B, Schwarz M, et al. Medication Reconciliation: A Practical Tool to Reduce the Risk of Medication Errors. J Crit Care. 2003;18(4):201-5. • Institute of Medicine (IOM). Preventing Medication Errors. National Academies Press, Washington D.C. 2006. - Institute of Medicine (IOM): Committee on Quality

	Health Care in America. To err is human: building a safer health system. Washington, D.C: National Academy Press. 2002. • Gurwitz JH, et al. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. 2003; 289: 1107-16. • George J, Elliott RA, Stewart DC. A systematic review of interventions to improve medication taking in elderly patients prescribed multiple medications. Drugs Aging. 2008; 25:307-24. • Vinks Th, Egberts TC, de Lange TM, De Koning FH. Pharmacist-based medication review reduces potential drug-related problems in the elderly: the SMOG controlled trial. Drugs Aging. 2009;26:123-33. • Hanlon JT, Lindblad CI, Gray SL. Can clinical pharmacy services have a positive impact on drug-related problems and health outcomes in community-based older adults? Am J Geriatr Pharmacother. 2004;2:3-13. • Gillespie U, Alassaad A, Henrohn D, et al. A Comprehensive Pharmacist Intervention to Reduce Morbidity in Patients 80 Years or Older. Arch Intern Med. 2009;169:894-900. • Zermansky AG, Silcock J. Is medication review by primary-care pharmacists for older people cost effective?: a narrative review of the literature focusing on costs and benefits. Pharmacoeconomics. 2009; 27:11-24. • Krska J, Cromarty JA, Arris F, et al. Pharmacist-led medication review in patients over 65: a randomized, controlled trial in primary care. Age Ageing, 2001;30:205-211. • Knight, E.L., J. Avorn. Quality indicators for appropriate medication use in vulnerable elders. Ann. Intern. Med. 2001. 703-10.

Avoidance of Dopamine-Blocking Medications in Patients with Parkinson's Disease

Measure Description	
Percentage of patients with PD prescribed a contraindicated dopamine-blocking agent* (i.e., anti-psychotic, anti-nausea, anti-Gastroesophageal Reflux Disease (GERD)). Note: A lower score is desirable.	
Measure Components	
Numerator Statement	Patients with PD prescribed a contraindicated dopamine blocking agent* (i.e., anti-psychotic, anti-nausea, anti-GERD). *Dopamine blocking agents are: Acepromazine, amisulpride, amoxapine, asenapine, azaperone, aripiprazole, benperidol, bromopride, butaclamol, chlorpromazine, chloprothixene, clomipramine, clopenthixol, droperidol, eticlopride, flupenthixol, fluphenazine, haloperidol, hydroxyzine, iodobenzamide, levomepromazine, loxapine, mesoridazine, metoclopramide, nafadotride, nemonapride, olanzapine, paliperidone, penfluridol, perazine, perphenazine, pimozide, prochlorperazine, promazine, promethazine, raclopride, remoxipride, reserpine, risperidone, spipersone, spiroxatrine, stepholidine, sulpride, sultopride, tetrabenazine, tetrahydropalmatine, thiethylperazine, thioridazine, thiothixene, tiapride, trifluoperazine, trifluperidol, triflupromazine, trimipramine, and ziprasidone. **Exceptions:** clozapine, quetiapine
Denominator Statement	All patients with a diagnosis of PD.
Denominator Exceptions	None
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • For patients with PD and psychosis, olanzapine should not be routinely considered (Level B).(1) • When encountering a psychotic PD patient it is critical that the treating healthcare providers be aware that only two medications have been shown in double-blind placebo-controlled trials to not worsen motor dysfunction in PD; quetiapine and clozapine.(2) • Randomized Clinical Trials support the previous designation of clozapine as being efficacious for the treatment of psychosis in PD.(3) • The use of olanzapine has an unacceptable risk of motor deterioration. Furthermore, atypical and conventional antipsychotics are associated with a similarly increased risk for all-cause mortality and cerebrovascular events in elderly patients with dementia.

	Olanzapine therefore has an unacceptable risk for the treatment of psychosis in PD.(3)
Measure Importance	
Relationship to Desired Outcome	Dopamine-blocking agents are often given to PD patients with psychotic, gastrointestinal, or sleep symptoms. Measuring how many patients with PD were prescribed these medications will result in reduced inappropriate prescriptions thereby preventing worsening of motor features of PD and avoiding medical errors and shortening the length of inpatient admissions.
Opportunity for Improvement	Clozapine and quetiapine have been shown to be effective without significant worsening of motor symptoms.(1) Appropriate high dopamine levels are needed to adequately control PD symptoms, but elevated dopamine levels can trigger a worsening of some symptoms including psychosis and dyskinesia. Antipsychotics are commonly prescribed for patients with PD despite potential to worsen motor symptoms.(4) Noyes noted that taking neuroleptic drugs increased an individual's chances of a diagnosis of PD within a year by 94%.(5) Hallucinations occur in approximately 1/3 of patients with PD treated chronically with dopaminergic drugs.(6) Using VA data, Weintraub found 50% of patients with PD having a diagnosis of psychosis were prescribed an antipsychotic.(7) Quetiapine was most frequently prescribed, but approximately 30% received a high dose antipsychotic (fluphenazine, haloperidol, perphenazine, trifluperazine, or thiothixene.)(7)
National Quality Strategy Domains	☐ Patient and Family Engagement ☒ Patient Safety ☐Care Coordination ☐ Population/Public Health ☒ Efficient Use of Healthcare Resources ☒ Clinical Process/Effectiveness
Exception Justification	Not applicable
Harmonization with Existing Measures	Not applicable
Measure Designation	
Measure Purpose (Check all that apply)	☒ Quality improvement ☒ Accountability
Type of Measure (Check all that apply)	☒Process ☐ Outcome ☐ Structure
Level of Measurement	☒ Individual Provider ☒ Practice

(Check all that apply)	☒ System
Care Setting (Check all that apply)	☒ Outpatient ☒ Inpatient ☒ Skilled Nursing Home ☒ Emergency Departments and Urgent Care
Data Source (Check all that apply)	☒ Electronic health record (EHR) data ☒Administrative Data/Claims ☐ Chart Review ☒ Registry

References

1. Miyasaki JM, Shannon K, Voon V, et al. Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: evaluation and treatment of depression, psychosis, and dementia in Parkinson disease (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006;66(7):996-1002.
2. Aminoff MJ, Christine CW, Friedman JH, et. al., Management of the hospitalized patient with Parkinson's disease: Current state of the field and need for guidelines. Parkin Rel Disord. 2011. 139-145.
3. Seppi K, Weintraub D, Coelho M, et al. The Movement Disorder Society Evidence-Based Medicine Review Update: Treatments for the Non-Motor Symptoms of Parkinson's Disease. Mov Disord. 2011;26(0 3): S42–S80.
4. Lertxundi U, Ruiz AI, Aspiazu MA, et al. Adverse reactions to antipsychotics in Parkinson disease: an analysis of the Spanish pharmacovigilance database. Clinical Neuropharmacology 2015; 38(3):69-84.
5. Noyes K, Hangsheng L, and Holloway RG. What is the risk of developing parkinsonism following neuroleptic use? Neurology 2006;66:941-943.
6. Goetz CG, Blasucci LM, Leurgans S, et al. Olanzapine and clozapine: comparative effects on motor function in hallucinating PD patients. Neurology 2000 Sep 26;55(6):789e94.
7. Weintraub D, Chen P, Ignacio RV, et al. Patterns and Trends in Antipsychotic Prescribing for Parkinson Disease Psychosis. Arch Neurol. 1011;68(7):899-904.

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure logic (through the CMS Measure Authoring Tool) for each of the PD measures will be made available at a later date.

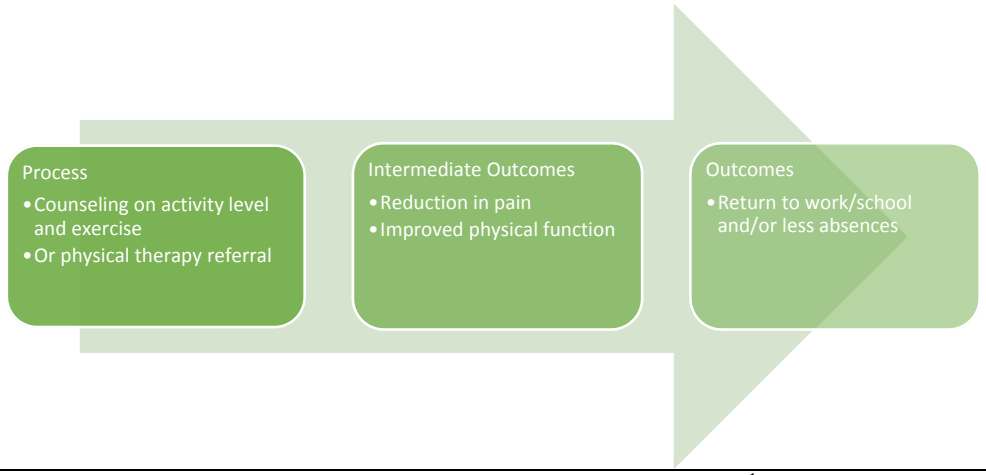
Technical Specifications: Administrative Data (Claims)

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/ denominator criteria.

Denominator (Eligible Population)	ICD-9 Code	ICD-10 Code
	332.0 (Paralysis agitans)	G20 Parkinson's Disease Hemiparkinsonism Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease
	AND	
	CPT E/M Service Code: 99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient);	

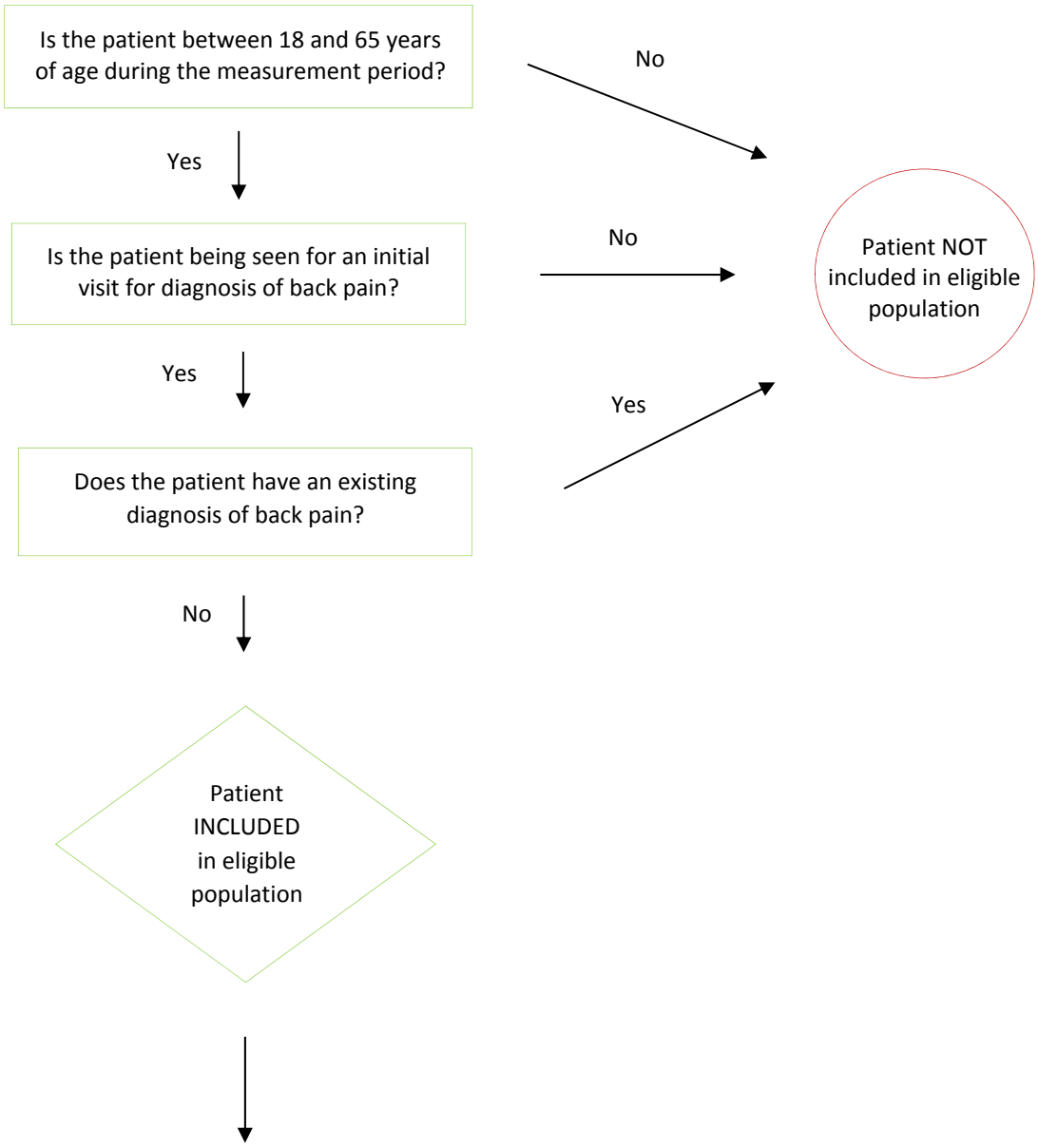
	99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient); 99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient); 99304, 99305, 99306, 99307, 99308, 99309, 99310 (Nursing Home Consultation) 99221-99223 (Initial Hospital Care); 99231-99233 (Subsequent Hospital Care); 99238-99239 (Hospital Discharge); 99251-99255 (Initial Inpatient Consultation); 99281-99285(Emergency Department); 99201-99205 or 99211-99215 (Urgent Care).

Measure Title	Activity counseling for back pain	
Description	Percentage of patients 18 to 65 years of age who were counseled to remain active and exercise or were referred to physical therapy	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Inpatient, ED or Urgent Care, Residential (SNF, home care)
	Ages	Patients aged 18 to 65 years of age
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to an inpatient or residential facility, seen for consultation in the ED or urgent care.
	Diagnosis	Back pain
Denominator	Patients aged 18 to 65 years of age seen for an initial visit for diagnosis of back pain	
Numerator	Patients who were counseled* to remain active and exercise OR were referred to physical therapy^ at initial visit for diagnosis of back pain *Counseling: advise on the maintenance or resumption of activities AND education on the importance of an active lifestyle and exercise. ^Documentation that physical therapy was recommended To perform well on this measure, we suggest using key phrases: exercise education, exercise counseling, activity counseling, return to regular activity as soon as possible, resumption of activity, referral to physical therapy	
Required Exclusions	Patients with existing diagnosis of back pain.	
Allowable Exclusions	• Co-morbid condition that deems the patient unfit to participate in physical activity • Patient has a history of cancer • Patient is on immunosuppression medications • Patient has signs or symptoms of cauda equina syndrome • Patient has risk factors for fractures • Existing order for physical therapy from different provider	
Exclusion Rationale	Several medical conditions indicated above would exclude a patient as they require a more conservative approach to management of back pain.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Process	
Level of Measurement	Provider, Practice, System Specifying at a system level so it's available when an outcome measure is developed.	
Risk Adjustment	N/A	

For Process Measures Relationship to Desired Outcome	
Opportunity to Improve Gap in Care	Back pain is a frequent cause of sick days for those in the work force[1]. In 1990 it was reported that low back pain was the fifth most common reason to see a physician[2]. A 2002 National Health Interview Survey indicated that one fourth of U.S. adults reported back pain in the last 3-month period[3]. A 2006 socioeconomic study showed total costs attributable to low back pain in the United States were estimated at $100 billion, two thirds of which were indirect costs of lost wages and productivity[4]. The Work Group debated how best to define counseling for this measure. Many studies recommended counseling patients on the use of heat and against the use of bed rest. After much discussion, these recommendations were removed as the intent of the measure is to remain active. Additionally, bed rest may be appropriate in some cases for a limited time span. The Work Group will reconsider these concepts in 3 years when the measures are updated.
Harmonization with Existing Measures	This is a variation of the ICSI measure on back pain. The modified measure was created to account for the role of neurologists in dealing with all types of back pain, not just low back and sciatica. https://qualitymeasures.ahrq.gov/summaries/summary/39391/adult-acute-and-subacute-low-back-pain-percentage-of-patients-who-were-advised-on-maintenance-or-resumption-of-activities-against-bed-rest-use-of-heat-education-on-importance-of-active-lifestyle-and-exercise-and-recommendation-to-take-antiinflammatory-or-analg?q=back+pain
References	1. Schaafsma FG, Whelan K, van der Beek AJ, et al. Physical conditioning as part of a return to work strategy to reduce sickness absence for workers with back pain. Cochrane Database of Systematic Reviews 2013, Issue 8. 2. Hart L, Deyo R, Cherkin D. Physician Office Visits for Low Back Pain: Frequency, Clinical Evaluation, and Treatment Patterns From a U.S. National Survey. Spine 1995; 20(1):11-9. 3. Deyo R, Mirza S. Back Pain Prevalence and Visit Rates: Estimates From U.S. National Surveys, 2002. Spine 2006; 31(23):2724-2727. 4. Qaseem A, Wilt TJ, McLean RM, Forciea MA, Clinical Guidelines Committee of the American College of Physicians. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2017 Apr 4;166(7):514-30. Supporting Evidence:

	• Chou R, Qaseem A, Snow V, et al. Diagnosis and treatment of low back pain: A joint clinical practice guideline from the American College of Physicians and the American Pain Society. Ann Internal Med 2007; 147:478-491. • National Guideline Centre. Low back pain and sciatica in over 16s: assessment and management. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov 30. 18 p. (NICE guideline; no. 59). • Goertz M, Thorson D, Bonsell J, et al. Adult acute and subacute low back pain. Institute for Clinical Systems Improvement (ICSI); 2012 Nov.

Flow Chart Diagram



Quality ID #412: Documentation of Signed Opioid Treatment Agreement
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention and Treatment of Opioid and Substance Use Disorders

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process-High Priority

DESCRIPTION:
All patients 18 and older prescribed opiates for longer than six weeks duration who signed an opioid treatment agreement at least once during Opioid Therapy documented in the medical record

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for all patients being prescribed opioids for duration longer than six weeks during the performance period. There is no diagnosis associated with this measure. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients 18 and older prescribed opiates for longer than six weeks duration

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212,99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02
AND
Patients prescribed opiates for longer than six weeks: G9577
AND NOT
DENOMINATOR EXCLUSION:
Patients who were in hospice at any time during the performanc All G-codes have been used. This is correctly written as M-code.**e period:** M1025

NUMERATOR:
Patients who signed an opioid treatment agreement at least once during opioid therapy

Definition:

Opioid Treatment Agreement – a treatment agreement is a signed document between MIPS eligible clinician and patient prior to initiating Continuous Opioid Therapy (COT). This agreement should include:

- Potential Risks of COT
- Alternatives to COT

Numerator Options:

Performance Met: Documentation of signed opioid treatment agreement at least once during opioid therapy **(G9578)**

OR

Performance Not Met: No documentation of signed opioid treatment agreement at least once during opioid therapy **(G9579)**

RATIONALE:

The goal of the consent process is to assist patients to make appropriate medical decisions that are consistent with their preferences and values. In some states, clinicians are required to document this discussion, though specific requirements vary.

CLINICAL RECOMMENDATION STATEMENTS:

When starting COT, informed consent should be obtained. A continuing discussion with the patient regarding COT should include goals, expectations, potential risks, and alternatives to COT (strong recommendation, low-quality evidence).

Clinicians may consider using a written COT management plan to document patient and clinician responsibilities and expectations and assist in patient education (weak recommendation, low-quality evidence) (p. 116).

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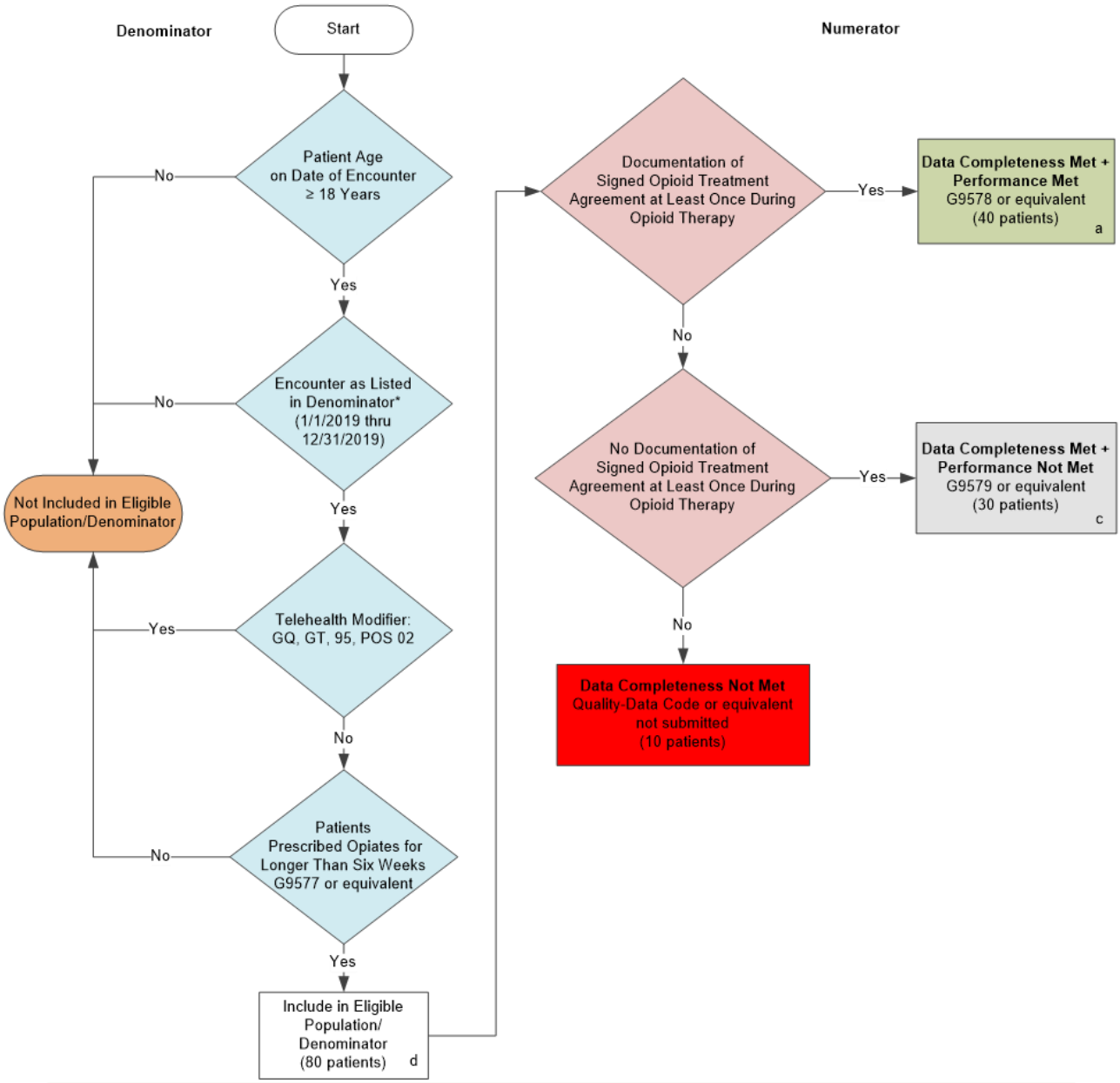
2019 Registry Flow for Quality ID #412: Documentation of Signed Opioid Treatment Agreement



SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

*See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency - Patient-process

v3

2019 Clinical Quality Measure Flow Narrative for Quality ID #412: Documentation of Signed Opioid Treatment Agreement

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
4. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Telehealth Modifier equals No, proceed to check Patients Prescribed Opiates for Longer Than Six Weeks.
5. Check Patients Prescribed Opiates for Longer Than Six Weeks:
    a. If Patients Prescribed Opiates for Longer Than Six Weeks equals No, do not include in Eligible Population. Stop Processing.
    b. If Patients Prescribed Opiates for Longer Than Six Weeks equals Yes, proceed to check Patients Who Were in Hospice at Any Time During the Performance Period.
6. Check Patients Who Were in Hospice at Any Time During the Performance Period:
    a. If Patients Who Were in Hospice at Any Time During the Performance Period equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Patients Who Were in Hospice at Any Time During the Performance Period equals No, include in Eligible Population.
7. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
8. Start Numerator
9. Check Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy:

a. If Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

c. If Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy equals No, proceed to check No Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy.

10. Check No Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy:

    a. If No Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If No Documentation of Signed Opioid Treatment Agreement at Least Once During Opioid Therapy equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = 57.14**%**
Data Completeness Numerator (70 patients) = 70 patients

Quality ID #414: Evaluation or Interview for Risk of Opioid Misuse
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention and Treatment of Opioid and Substance Use Disorders

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process- High Priority

DESCRIPTION:
All patients 18 and older prescribed opiates for longer than six weeks duration evaluated for risk of opioid misuse using a brief validated instrument (e.g. Opioid Risk Tool, SOAPP-R) or patient interview documented at leastonce during Opioid Therapy in the medical record

INSTRUCTIONS:
This measure is to be submitted **once per performance period** for all patients being prescribed opioids for duration longer than six weeks during the performance period. There is no diagnosis associated with this measure. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third-party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third-party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third-party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients 18 and older prescribed opiates for longer than six weeks duration

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the performance period (CPT):
99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02
AND
Patients prescribed opiates for longer than six weeks: G9583
AND NOT
DENOMINATOR EXCLUSION:
Patients who were in hospice at any time during the performance period: M1026

NUMERATOR:
Patients evaluated for risk of misuse of opiates by using a brief validated instrument (e.g., Opioid Risk Tool, Opioid Assessment for Patients with Pain, revised (SOAPP-R)) or patient interview at least once during opioid therapy

Numerator Options:

Performance Met:	Patient evaluated for risk of misuse of opiates by using a brief validated instrument (e.g., Opioid Risk Tool, SOAPP-R) or patient interviewed at least once during opioid therapy **(G9584)**
OR	
Performance *Not Met:*	Patient not evaluated for risk of misuse of opiates by using a brief validated instrument (e.g., Opioid Risk Tool, SOAPP-R) or patient not interviewed at least once during opioid therapy **(G9585)**

RATIONALE:

A thorough history and physical examination, including an assessment of psychosocial factors and family history, is essential for adequate risk stratification. Implicit in the recommendation to conduct a comprehensive benefit-to-harm analysis is the recognition that an opioid trial may not be appropriate. Clinicians should obtain appropriate diagnostic tests to evaluate the underlying pain condition, and should consider whether the pain condition may be treated more effectively with nonopioid therapy rather than with COT.

CLINICAL RECOMMENDATION STATEMENTS:

Before initiating COT, clinicians should conduct a history, physical examination and appropriate testing, including an assessment of risk of substance abuse, misuse, or addiction (strong recommendation, low-quality evidence).

Clinicians may consider a trial of COT as an option if chronic noncancer pain (CNCP) is moderate or severe, pain is having an adverse impact on function or quality of life, and potential therapeutic benefits outweigh or are likely to outweigh potential harms (strong recommendation, low-quality evidence).

A benefit-to-harm evaluation including a history, physical examination, and appropriate diagnostic testing, should be performed and documented before and on an ongoing basis during COT (strong recommendation, low-quality evidence) (p. 115).

Tools that appear to have good content, face, and construct validity include the Screener and Opioid Assessment for Patients with Pain (SOAPP) Version 1, the revised SOAPP (SOAPP-R), the Opioid Risk Tool (ORT), and the Diagnosis, Intractability, Risk, Efficacy (DIRE) instrument (p.116).

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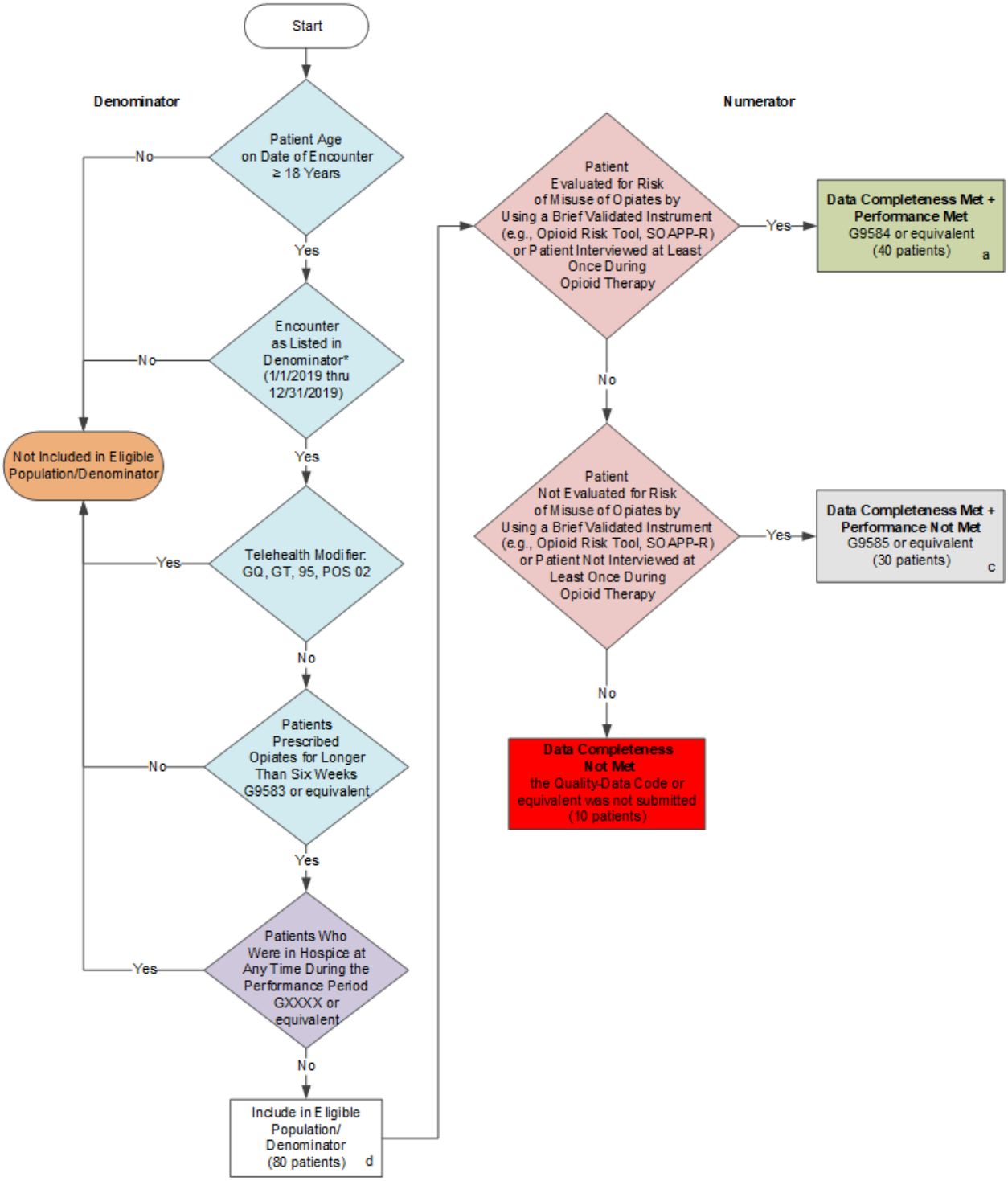
2019 Clinical Quality Measure Flow for Quality ID #414: Evaluation or Interview for Risk of Opioid Misuse



*See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE : Submission Frequency: Patient-process

v3

2019 Clinical Quality Measure Flow Narrative for Quality ID #414: Evaluation or Interview for Risk of Opioid Misuse

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
4. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Telehealth Modifier equals No, proceed to check Patients Prescribed Opiates for Longer Than Six Weeks.
5. Check Patients Prescribed Opiates for Longer Than Six Weeks:
    a. If Patients Prescribed Opiates for Longer Than Six Weeks equals No, do not include in Eligible Population. Stop Processing.
    b. If Patients Prescribed Opiates for Longer Than Six Weeks equals Yes, proceed to check Patients Who Were in Hospice at Any Time During the Performance Period.
6. Check Patients Who Were in Hospice at Any Time During the Performance Period:
    a. If Patients Who Were in Hospice at Any Time During the Performance Period equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Patients Who Were in Hospice at Any Time During the Performance Period equals No, include in Eligible Population.
7. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
8. Start Numerator
9. Check Patient Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Interviewed at Least Once During Opioid Therapy:

a. If Patient Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Interviewed at Least Once During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

c. If Patient Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Interviewed at Least Once During Opioid Therapy equals No, proceed to check Patient Not Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Not Interviewed at Least Once During Opioid Therapy.

10. Check Patient Not Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Not Interviewed at Least Once During Opioid Therapy:

    a. If Patient Not Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Interviewed at Least Once During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If Patient Not Evaluated for Risk of Misuse of Opiates by Using a Brief Validated Instrument (e.g., Opioid Risk Tool, SOAPP-R) or Patient Not Interviewed at Least Once During Opioid Therapy equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70patients) = 70 patients

Quality ID #408: Opioid Therapy Follow-up Evaluation
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Prevention and Treatment of Opioid and Substance Use Disorders

2019 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process-High Priority

DESCRIPTION:
All patients 18 and older prescribed opiates for longer than six weeks duration who had a follow-up evaluation conducted at least every three months during Opioid Therapy documented in the medical record

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for all patients being prescribed opioids for duration longer than six weeks during the performance period. There is no diagnosis associated with this measure. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: *Include only patients that have 6 weeks opioid use through* ***September 30*** *of the performance period. This will allow the follow-up evaluation of at least 90 days after opioid therapy within the performance period.*

Measure Submission Type
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients 18 and older prescribed opiates for longer than six weeks duration

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02
AND
Patients prescribed opiates for longer than six weeks: G9561
AND NOT
DENOMINATOR EXCLUSION:
Patients who were in hospice at any time during the performance period: M1022

NUMERATOR:
Patients who had a follow-up evaluation conducted at least every three months during opioid therapy

Definition:
Follow-Up Evaluation – periodic MIPS eligible clinician encounters to reassess patients on Continuous Opioid Therapy (COT) as warranted by changing circumstances surrounding the patient. Monitoring should include:

- Documentation of pain intensity and level of functioning
- Assessments of progress toward achieving therapeutic goals
- Presence of adverse events
- Adherence to prescribed therapies

Numerator Options:

Performance Met:	Patients who had a follow-up evaluation conducted at least every three months during opioid therapy **(G9562)**
OR	
Performance Not Met:	Patients who did not have a follow-up evaluation conducted at least every three months during opioid therapy **(G9563)**

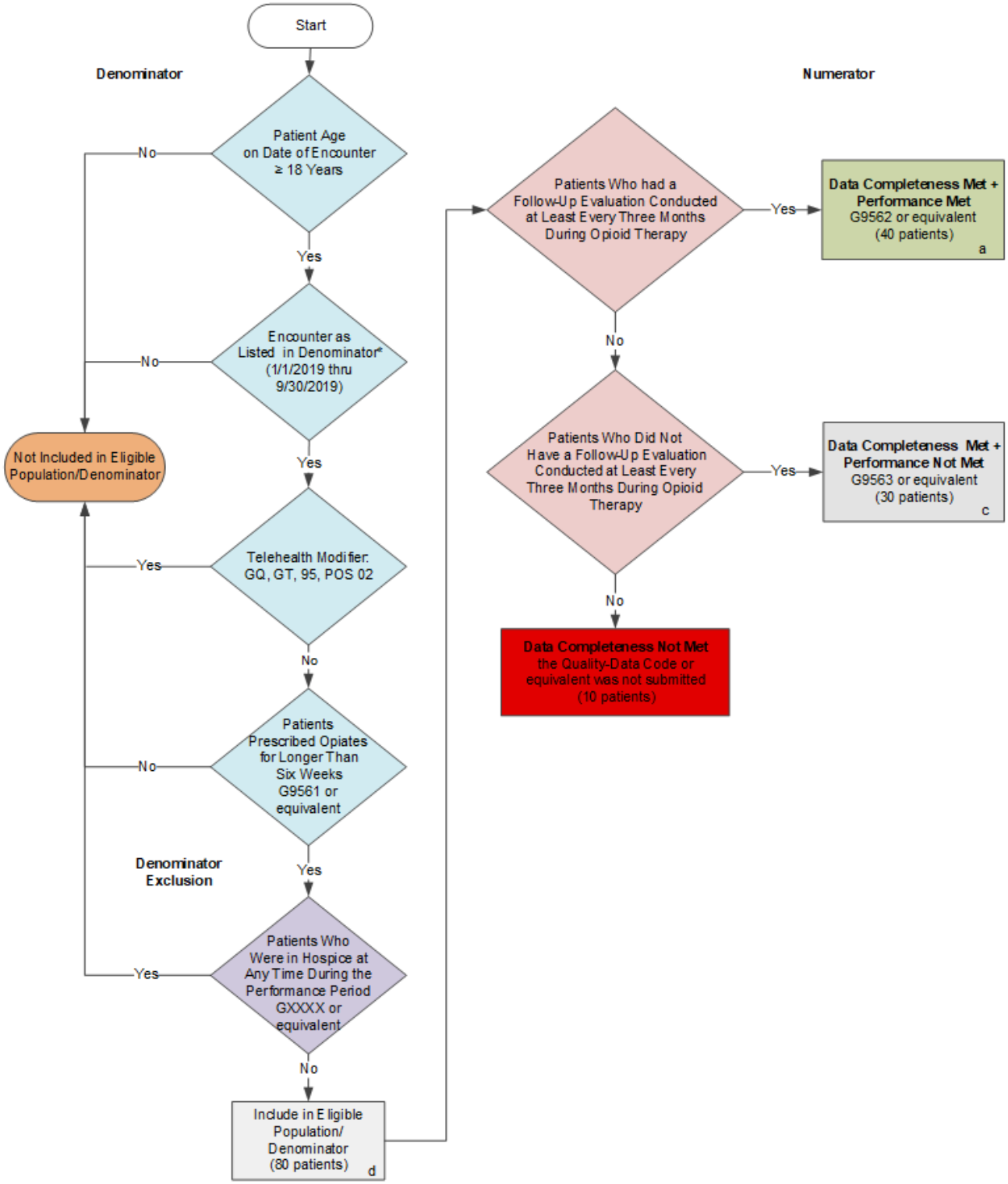
RATIONALE:
Clinicians should periodically reassess all patients on COT. Regular monitoring of patients once COT is initiated is critical because therapeutic risks and benefits do not remain static and can be affected by changes in the underlying pain condition, presence of coexisting disease, or changes in psychological or social circumstances. Monitoring is essential to identify patients who are benefiting from COT, those who might benefit more with restructuring of treatment or receiving additional services such as treatment for addiction, and those whose benefits from treatment are outweighed by harms.

CLINICAL RECOMMENDATION STATEMENTS:
Clinicians should reassess patients on COT periodically and as warranted by changing circumstances. Monitoring should include documentation of pain intensity and level of functioning, assessments of progress toward achieving therapeutic goals, presence of adverse events, and adherence to prescribed therapies (strong recommendation, low-quality evidence).

In patients on COT who are at high risk or who have engaged in aberrant drug-related behaviors, clinicians should periodically obtain urine drug screens or other information to confirm adherence to the COT plan of care (strong recommendation, low-quality evidence).

In patients on COT not at high risk and not known to have engaged in aberrant drug-related behaviors, clinicians should consider periodically obtaining urine drug screens or other information to confirm adherence to the COT plan of care (weak recommendation, low-quality evidence) (p. 118).

2019 Clinical Quality Measure Flow for Quality ID #408: Opioid Therapy Follow-up Evaluation



*See the posted Measure Specification for specific coding and instructions to submit this measure.
NOTE : Submission Frequency: Patient-process

v3

2019 Clinical Quality Measure Flow Narrative for Quality ID #408: Opioid Therapy Follow-up Evaluation

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification.

1. Start with Denominator
2. Check Patient Age:
    a. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals No during the measurement period, do not include in Eligible Population. Stop Processing.
    b. If Patient Age is greater than or equal to 18 Years on Date of Encounter equals Yes during the measurement period, proceed to check Encounter Performed
3. Check Encounter Performed:
    a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Population. Stop Processing.
    b. If Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier
4. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Telehealth Modifier equals No, proceed to check Patients Prescribed Opiates for Longer Than Six Weeks.
5. Check Patients Prescribed Opiates for Longer Than Six Weeks:
    a. If Patients Prescribed Opiates for Longer Than Six Weeks equals No, do not include in Eligible Population. Stop Processing.
    b. If Patients Prescribed Opiates for Longer than Six Weeks equals Yes, proceed to check Patients Who Were in Hospice at Any Time During the Performance Period.
6. Check Patients Who Were in Hospice at Any Time During the Performance Period:
    a. If Patients Who Were in Hospice at Any Time During the Performance Period equals Yes, do not include in Eligible Population. Stop Processing.
    b. If Patients Who Were in Hospice at Any Time During the Performance Period equals No, include in Eligible Population.
7. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
8. Start Numerator

9. Check Patients Who had a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy:

    a. If Patients Who had a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.

    c. If Patients Who had a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy equals No, proceed to check Patients Who Did Not Have a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy.

10. Check Patients Who Did Not Have a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy:

    a. If Patients Who Did Not Have a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 30 patients in the Sample Calculation.

    c. If Patients Who Did Not Have a Follow-Up Evaluation Conducted at Least Every Three Months During Opioid Therapy equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

    a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness =
Performance Met (a=40 patients) + Performance Not Met (c=30 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=
Performance Met (a=40 patients) = 40 patients = **57.14%**
Data Completeness Numerator (70 patients) = 70 patients

Quality ID #431 (NQF 2152): Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling - National Quality Strategy Domain: Community / Population Health

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for unhealthy alcohol use using a systematic screening method at least once within the last 24 months AND who received brief counseling if identified as an unhealthy alcohol user

INSTRUCTIONS:
This measure is to be submitted once per performance period for patients seen during the performance period. This measure is intended to reflect the quality of services provided for preventive screening for unhealthy alcohol use. There is no diagnosis associated with this measure. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding. For the purposes of the measure, the most recent denominator eligible encounter should be used to determine if the numerator action for the submission criteria was performed within the 24 month look back period.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period

*DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.*

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years
AND
At least two patient encounters during the performance period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 90845, 96150, 96151, 96152, 97165, 97166, 97167, 97168, 97802, 97803, 97804, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, G0270, G0271
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02
OR
At Least One Preventive Visit during the performance period (CPT or HCPCS): 96160, 96161, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, G0438, G0439
WITHOUT
Telehealth Modifier: GQ, GT, 95, POS 02

NUMERATOR:
Patients who were screened for unhealthy alcohol use using a systematic screening method at least once within the last 24 months AND who received brief counseling if identified as an unhealthy alcohol user

Definitions:
Systematic screening method - For purposes of this measure, one of the following systematic methods to assess unhealthy alcohol use must be utilized. Systematic screening methods and thresholds for defining unhealthy alcohol use include:

- AUDIT Screening Instrument (score ≥ 8)
- AUDIT-C Screening Instrument (score ≥ 4 for men; score ≥ 3 for women)
- Single Question Screening - How many times in the past year have you had 5 (for men) or 4 (for women and all adults older than 65 years) or more drinks in a day? (response ≥ 2)

Brief counseling - Brief counseling for unhealthy alcohol use refers to one or more counseling sessions, a minimum of 5-15 minutes, which may include: feedback on alcohol use and harms; identification of high risk situations for drinking and coping strategies; increased motivation and the development of a personal plan to reduce drinking.

NUMERATOR NOTE: In the event that a patient is screened for unhealthy alcohol use and identified as a user but did not receive brief alcohol cessation counseling submit G9624. Denominator Exception(s) are determined on the date of the most recent denominator eligible encounter.

Numerator Options:

Performance Met:	Patient identified as an unhealthy alcohol user when screened for unhealthy alcohol use using a systematic screening method and received brief counseling (G9621)
OR	
Performance Met:	Patient not identified as an unhealthy alcohol user when screened for unhealthy alcohol use using a systematic screening method (G9622)
OR	
Denominator Exception:	Documentation of medical reason(s) for not screening for unhealthy alcohol use (e.g., limited life expectancy, other medical reasons) (G9623)
OR	
Performance Not Met:	Patient not screened for unhealthy alcohol use using a systematic screening method OR patient did not receive brief counseling if identified as an unhealthy alcohol user, reason not given (G9624)

RATIONALE:
This measure is intended to promote unhealthy alcohol use screening and brief counseling which have been shown to be effective in reducing alcohol consumption. About 30% of the U.S. population misuse alcohol, with most engaging in what is considered risky drinking. (SAMHSA, 2012) A recent analysis of data from the National Alcohol Survey shows that approximately one-third of at-risk drinkers (32.4%) and persons with a current alcohol use disorder (31.5%) in the United States had at least 1 primary care visit during the prior year, demonstrating the potential reach of screening and brief counseling for unhealthy alcohol use in the primary care setting. (Mulia et al., 2011) A number of studies, including patient and provider surveys, have documented low rates of alcohol misuse screening and counseling in primary care settings. In the national Healthcare for Communities Survey, only 8.7% of problem drinkers reported having been asked and counseled about their alcohol use in the last 12 months. (D'Amico

et al., 2005) A nationally representative sample of 648 primary care physicians were surveyed to determine how such physicians identify--or fail to identify--substance abuse in their patients, what efforts they make to help these patients and what are the barriers to effective diagnosis and treatment. Of physicians who conducted annual health histories, less than half ask about the quantity and frequency of alcohol use (45.3 percent). Only 31.8 percent say they ever administer standard alcohol or drug use screening instruments to patients. (CASA, 2000)

CLINICAL RECOMMENDATION STATEMENTS:
The USPSTF recommends that clinicians screen adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse. (Grade B recommendation) (USPSTF, 2014)

2018 Registry Flow for Quality ID #431 NQF #2152:
Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met } (a^1+a^2 = 40 \text{ patients}) + \text{Denominator Exception } (b=10 \text{ patients}) + \text{Performance Not Met } (c=20 \text{ patients})}{\text{Eligible Population / Denominator } (d=80 \text{ patients})} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met } (a^1+a^2 = 40 \text{ patients})}{\text{Data Completeness Numerator (70 patients)} - \text{Denominator Exception (b=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$

*See the posted Measure Specification for specific coding and instructions to submit this measure.
**All encounters should be without the telehealth modifier in order to be denominator eligible.
Note: Submission Frequency: Patient-Process

v2

2018 Registry Flow for Quality ID #431 (NQF 2152): Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in submitting this Individual Measure. The flow is for registry data submission.

1. Start with Denominator
2. Check Patient Age:
    a. If the Age is greater than or equal to 18 years of age equals No during the performance period, do not include in Eligible Patient Population. Stop Processing.
    b. If the Age is greater than or equal to 18 years of age equals Yes during the performance period, proceed to check At Least Two Patient Encounters.
3. Check At Least Two Patient Encounters:
    a. If At Least Two Patient Encounters as Listed in the Denominator equals No, proceed to check At Least One Preventive Encounter.
    b. If At Least Two Patient Encounters as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
4. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, proceed to check At Least One Preventive Encounter.
    b. If Telehealth Modifier equals No, include in the Eligible Population.
5. Check At Least One Preventive Encounter:
    a. If At Least One Preventive Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
    b. If At Least One Preventive Encounter as Listed in the Denominator equals Yes, proceed to check Telehealth Modifier.
6. Check Telehealth Modifier:
    a. If Telehealth Modifier equals Yes, do not include in Eligible Patient Population. Stop Processing.
    b. If Telehealth Modifier equals No, include in the Eligible Population.
7. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
8. Start Numerator
9. Check Patient Identified as an Unhealthy Alcohol User Using a Systematic Screening Method AND Received Brief Counseling:

a. If Patient Identified as an Unhealthy Alcohol User Using a Systematic Screening Method AND Received Brief Counseling equals Yes, include in Data Completeness Met and Performance Met.

b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a^1 equals 30 patients in the Sample Calculation.

c. If Patient Identified as an Unhealthy Alcohol User Using a Systematic Screening Method AND Received Brief Counseling equals No, proceed to Patient Not Identified as an Unhealthy Alcohol User When Screened for Unhealthy Alcohol Use Using a Systematic Screening Method.

10. Check Patient Not Identified as an Unhealthy Alcohol User when Screened for Unhealthy Alcohol Use Using a Systematic Screening Method:

    a. If Patient Not Identified as an Unhealthy Alcohol User when Screened for Unhealthy Alcohol Use Using a Systematic Screening Method equals Yes, include in Data Completeness Met and Performance Met.

    b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a^2 equals 10 patients in the Sample Calculation.

    c. If Patient Not Identified as an Unhealthy Alcohol User when Screened for Unhealthy Alcohol Use Using a Systematic Screening Method equals No, proceed to Documentation of Medical Reason(s) for Not Screening for Unhealthy Alcohol Use.

11. Check Documentation of Medical Reason(s) for Not Screening for Unhealthy Alcohol Use:

    a. If Documentation of Medical Reason(s) for Not Screening for Unhealthy Alcohol Use equals Yes, include in Data Completeness Met and Denominator Exception.

    b. Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.

    c. If Documentation of Medical Reason(s) for Not Screening for Unhealthy Alcohol Use equals No, proceed to Patient Not Screened for Unhealthy Alcohol Use Using a Systematic Screening Method OR Patient did Not Receive Brief Counseling, Reason Not Given.

12. Check Patient Not Screened for Unhealthy Alcohol Use Using a Systematic Screening Method OR Patient did Not Receive Brief Counseling, Reason Not Given:

    a. If Patient Not Screened for Unhealthy Alcohol Use Using a Systematic Screening Method OR Patient did Not Receive Brief Counseling, Reason Not Given equals Yes, include in Data Completeness Met and Performance Not Met.

    b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.

    c. If Patient Not Screened for Unhealthy Alcohol Use Using a Systematic Screening Method OR Patient did Not Receive Brief Counseling, Reason Not Given equals No, proceed to Data Completeness Not Met.

13. Check Data Completeness Not Met:

a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

Performance Met (a^1+a^2 =40 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=20 patients) = 70 patients = **87.50%**

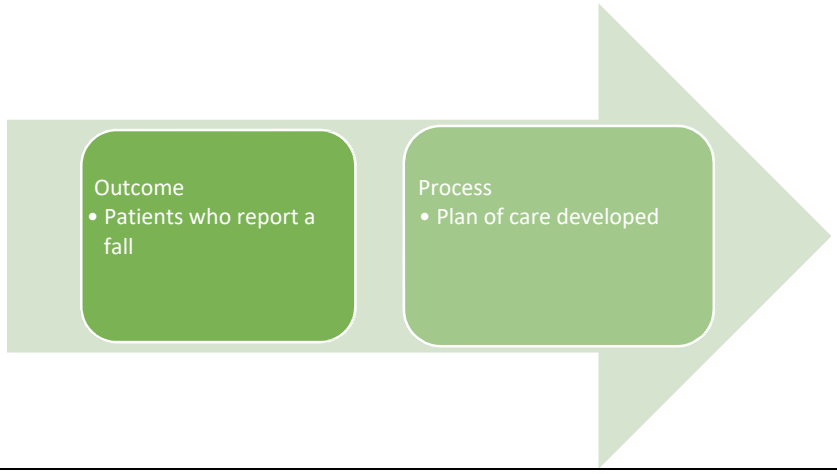
Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a^1+a^2 =40 patients) = 40 patients = **66.67%**

Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

Measure Title	Falls plan of care	
Description	Percentage of patients that reported a fall during the measurement period and had a plan of care documented	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient, Residential (SNF, home care)
	Ages	All patients
	Event	Patient had an office visit, E/M services performed or supervised by an eligible provider, admitted to a residential facility.
	Diagnosis	A neurological condition
Denominator	Patients aged 18 and older with a neurological condition that reported a fall during the measurement period	
Numerator	Patients with a plan of care* for falls documented (including plans created by another provider) in the measurement period. *Plan of care must include consideration of balance, strength, and gait training OR a referral to physical therapy. To perform well on this measure, we suggest using key phrases: • balance, strength, gait training; • falls plan of care that includes education on balance, and strength, and gait training; • referral to physical therapy	
Required Exclusions	None	
Allowable Exclusions	• Patient is bed ridden, immobile, not ambulatory	
Exclusion Rationale	Patients who are not mobile are not at risk of falling. A patient does not need to be asked about falls if they are nonambulatory. A visit where a procedure is performed is typically preceded by an office visit where falls would be discussed. A patient should be excluded if they were not asked about falls.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	

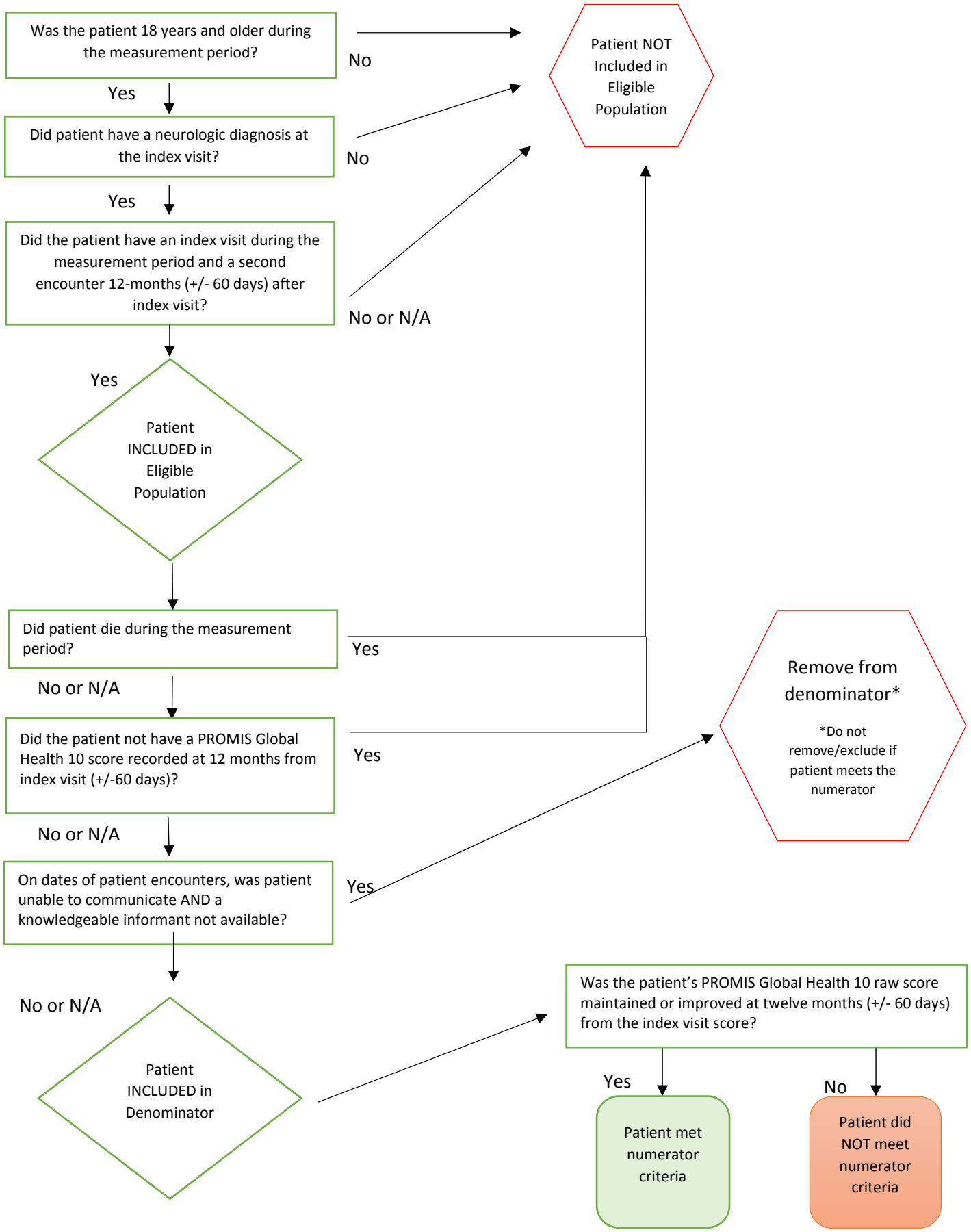
Measure Type	Process
Level of Measurement	Provider, Practice
Risk Adjustment	*See Appendix A AAN Statement on Comparing Outcomes of Patients* *This outcome measure is being made available in advance of development of a risk adjustment strategy. The work group identified the following potential data elements that may be used in a risk adjustment methodology for this measure:* • Comorbidities
For Process Measures Relationship to Desired Outcome	
Opportunity to Improve Gap in Care	In people aged 65 years and older, falls are one of the leading causes of death[1]. However, patients with neurological conditions are often younger and are at an increased risk of falling due to their disease symptomology. 127,457,106 non-fatal falls were recorded from 2001 to 2015[2]. For those that were hospitalized due to the fall, the cost is approximately $39,000 per patient[2]. There is evidence that vitamin D supplementation may play a role in preventing falls or preventing fractures. However, there is not enough evidence to support it for all neurological patients at this time.
Harmonization with Existing Measures	This is a variation of the NCQA measure (NQF# 0101). A separate measure is needed to capture the wider age range of neurology patients that often experience falls earlier in life due to their decreased motor function. The AAN has talked with NCQA about adjusting the denominator of their measure to capture the younger neurology population. This was not possible as treatment plans for those over 65 compared vary from the treatment plan for those younger. As such, a separate measure is necessary.
References	1. National Committee for Quality Assurance (NCQA) http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2016-table-of-contents/fall-risk 2. Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. Available at: http://www.cdc.gov/ncipc/wisqars/ Supporting evidence:

	• The American Geriatrics Society. AGS Clinical Practice Guideline: Prevention of Falls in Older Persons (2010). • The U.S. Preventive Services Task Force. Prevention of Falls in Community Dwelling Adults. May 2012. Accessed 2/27/2015. http://www.uspreventiveservicestaskforce.org/uspstf/uspsfalls.htm • National Center for Injury Prevention and Control. 2008. "Preventing Falls: How to Develop Community-based Fall Prevention Programs for Older Adults." Atlanta, GA: Center for Disease Control and Prevention. • National Council on Aging. 2012. "Fall Prevention: Fact Sheet." https://www.ncoa.org/wp-content/uploads/Fact-Sheet_Falls-Prevention.pdf • Saverino A, Moriarty A, Playford D. The risk of falling in young adults with neurological conditions: a systematic review. Disability and Rehabilitation 2014; 36:963-977. • Matsuda PN, Verall A, Finlayson M, et al. Falls among adults aging with disability. Archives of Physical Medicine and Rehabilitation 2015; 96:464-71. • Thurman D, Steven J, Rao J. Practice Parameter: Assessing patients in a neurology practice for risk of falls (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2008; 70:473-479.

Measure Title	Global Health 10	
Description	Percentage of patients whose quality of life assessment results are maintained or improved during the measurement period.	
Measurement Period	January 1, 20xx to December 31, 20xx	
Eligible Population	**Eligible Providers**	Medical Doctor (MD), Doctor of Osteopathy (DO), Nurse Practitioners (NP), Physician Assistant (PA), Advanced Practice Registered Nurse (APRN)
	Care Setting(s)	Outpatient
	Ages	Age 18 years and older
	Event	An index visit occurs when ALL of the following criteria are met during a face-to-face visit: • An active diagnosis of a neurologic condition • A PROMIS Global Health-10 score was recorded • The patient is NOT in a prior index period *An index period begins with an index visit and is 10-14 months in duration.*
	Diagnosis	See Appendix A Diagnostic codes include amyotrophic lateral sclerosis, attention deficit disorders, autism, cerebral palsy, cognitive impairment and related dementias, developmental delays, headache and migraine, movement disorders, multiple sclerosis, muscular dystrophy, neoplasms of brain and spine, polyneuropathy, seizure and epilepsy, stroke, tic disorders, vertigo and related neuro-otology disorders, and other neurologic conditions.
Denominator	Patients aged 18 years and older diagnosed with neurologic condition	
Numerator	Patients whose PROMIS Global Health-10 score(1)* at twelve months (+/-60 days) was maintained or improved from the index score^. *For patients with more than 2 scores present at twelve months (+/- 60 days) the last score recorded shall be compared to the index visit score.	
Required Exclusions	• Patients who died • Second PROMIS Global Health-10 score not collected at twelve months (+/-60 days)	
Allowable Exclusions	• Patient unable to communicate and no knowledgeable informant available. Suggested key phrases to locate exclusions are: • "Unable to communicate; no proxy/care partner available" • "Unable to communicate and no proxy/care partner available"	
Allowable Exclusion Inclusion Logic	Allowable exclusions can only help measure performance. If a patient has an allowable exclusion but is found to meet the numerator that patient is included in the count to meet the measure.	
Exclusion Rationale	Patients who have died are appropriate to exclude from a quality of life measure requiring patient report of outcomes. Similarly if a follow-up score was not collected performance cannot be calculated and are appropriate for exclusion.	
Measure Scoring	Percentage	
Interpretation of Score	Higher Score Indicates Better Quality	
Measure Type	Patient Reported Outcome Performance Measure	
Level of Measurement	Provider	
Risk Adjustment	*See Appendix B AAN Statement on Comparing Outcomes of Patients* *This measure is being made available in advance of development of a risk adjustment strategy. Individuals commenting on the measures are encouraged to provide input on potential risk*	

	adjustment or stratification methodologies. The work group identified the following potential data elements that may be used in a risk adjustment methodology for this measure: • Co-morbidity (other neurologic or neurobehavioral/neuropsychological disorders) • Co-morbidities (medical conditions) • Cognitive impairment and abilities • Trauma exposure • High healthcare utilizer • Duration of the neurology diagnosis • Polypharmacy • Activity level – physical function • Use of an interpreter and primary spoken language	
Desired Outcome	Measuring quality of life allows patients and providers to identify areas of concern and develop appropriate treatment plan adjustments as needed.	
Opportunity to Improve Gap in Care	Collecting quality of life data in a neurology ambulatory setting is feasible and found to be meaningful.(2,3)	
Harmonization with Existing Measures	There are no known similar measures applicable to patients with neurologic conditions.	
References	1. Hays RD, Bjorner JB, Revicki DA, et al. Development of physical and mental health summary scores from the patient-reported outcomes measurement information system (PROMIS) global items. Qual Life Res. 2009;18:873–880. 2. Moura LMVR, Schwamm E, Moura Jr V., et al. Feasibility of the collection of patient-reported outcomes in an ambulatory neurology clinic. Neurology. 2016;87:1-8. 3. Katzan IL, Lapin B. PROMIS GH (Patient-Reported Outcomes Measurement Information System Global Health) Scale in Stroke: A Validation Study. Stroke 2018; 49(1): 147-154.	
Code System	**Code**	**Code Description**
CPT	99201-99205	Office or Other Outpatient Visit - New Patient (E/M Codes)
CPT	99211-99215	Office or Other Outpatient Visit - Established Patient (E/M Codes)
CPT	99241-99245	Office or Other Outpatient Consultation – New or Established Patient
		AND
ICD-10		See Appendix A

Flow Chart Diagram: Quality of Life Outcome for Patients with Neurologic Conditions



Step-by-Step Calculation: Quality of Life Outcome for Patients with Neurologic Conditions

Start with Denominator

1. Check Patient Age
    a. If the Age is less than 18 years on Date of Service and equals No during the measurement period, do not include in Eligible Patient Population. Stop processing.
    b. If the Age is greater than or equal to 18 years on Date of Service and equals Yes during the measurement period, proceed to check Diagnosis, Neurologic Condition.
2. Check Diagnosis, Neurologic Condition
    a. If there is no diagnosis of neurologic condition on the Date of Service, and equals No during the measurement period, do not include in Eligible Patient Population. Stop processing.
    b. If there is a diagnosis of neurologic condition on the Date of Service, and equals Yes during the measurement period, proceed to check Encounter Performed.
3. Check Index Visit Performed
    a. If Index Visit Performed in the Denominator equals No, do not include in Eligible Patient Population. Stop processing.
    b. If Index Visit Performed in the Denominator equals Yes, include in Eligible Patient Population.
4. Check for Required Exclusions
    a. If Patient met Required Exclusions equals Yes, do not include in Eligible Patient Population. Stop processing.
    b. If Patient met Required Exclusions equals No, proceed to Denominator Population.
5. Denominator Population
    a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 90 patients in the Sample Calculation.

Start Numerator

6. Check Patient Quality of Life Maintained or Improved
    a. If Patient Quality of Life Maintained or Improved (i.e., patient raw score at twelve months (+/- 60 days) was equal to or greater than an index visit raw score) equals Yes, include in Data Completeness Met and Performance Met.
    b. Data completeness met and performance met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 35 patients in the Sample Calculation.
    c. If Patient Quality of Life Maintained or Improved equals No, proceed to Allowable Exclusions
7. Check for Allowable Exclusions
    a. If Patient met Allowable Exclusions equals Yes, remove from Denominator population.
    b. If Patient met Allowable Exclusions equals No, proceed to check Patient Quality of Life Worsened.
8. Check Patient Quality of Life Worsened.
    a. If Patient Quality of Life Worsened (i.e., patient raw score at twelve months (+/- 60 days) was less than an index visit raw score) equals Yes, include in Data Completeness Met and Performance NOT Met.
    b. Data completeness met and performance NOT met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 40 patients in the Sample Calculation.
    c. If Patient Quality of Life Worsened equals No, proceed to Data Completeness NOT Met.
9. Check Data Completeness Not Met
    a. If Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 15 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations

Data Completeness*=

Performance Met (a=30 + b=5) + Performance Not Met (c=40)	=75 Patients	=83.3%
Eligible Population/ Denominator (d=90)	90 Patients	

Performance Rate =

Performance Met (a=30 + b=5)	=35 Patients	=38.8%
Eligible Population/ Denominator (d=90)	90 Patients	

CMS maintains a data completeness threshold for reporting in its Merit-based Incentive Payment System (MIPS). The data completeness threshold changes each year and varies based on which reporting mechanism a provider is using.

- For 2018 and 2019 quality measures reported via Medicare Part B claims, providers must report on 60% of the individual MIPS eligible clinician's Medicare Part B patients for the performance period.
- For 2019 quality measures reported via administrative claims, providers must report on 100% of the individual MIPS eligible clinician's Medicare Part B patients for the performance period.
- For 2018 and 2019 quality measures reported via a QCDR, MIPS CQMs and eCQMs, eligible clinicians must report on 60% of the individual MIPS eligible clinician's patients across all payers for the performance period.

Appendix A Diagnostic Codes

Code System	Code	Code Description
ICD-10 CM	A52.17	General paresis Dementia paralytica
ICD-10 CM	A81.00	Creutzfeldt-Jacob disease, unspecified
ICD-10 CM	A81.01	Variant Creutzfeldt-Jacob disease
ICD-10 CM	A81.89	Other Creutzfeldt-Jacob disease: Familial Creutzfeldt-Jacob disease Iatrogenic Creutzfeldt-Jacob disease Sporadic Creutzfeldt-Jacob disease Subacute spongioform encephalopathy (with dementia)
ICD-10 CM	A88.1	Epidemic vertigo
ICD-10 CM	C70	Malignant neoplasm of meninges
ICD-10 CM	C70.0	Malignant neoplasm of cerebral meninges
ICD-10 CM	C70.1	Malignant neoplasm of spinal meninges
ICD-10 CM	C70.9	Malignant neoplasm of meninges, unspecified
ICD-10 CM	C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles
ICD-10 CM	C71.1	Malignant neoplasm of frontal lobe
ICD-10 CM	C71.2	Malignant neoplasm of temporal lobe
ICD-10 CM	C71.3	Malignant neoplasm of parietal lobe
ICD-10 CM	C71.4	Malignant neoplasm of occipital lobe
ICD-10 CM	C71.5	Malignant neoplasm of cerebral ventricle
ICD-10 CM	C71.6	Malignant neoplasm of cerebellum
ICD-10 CM	C71.7	Malignant neoplasm of brain stem
ICD-10 CM	C71.8	Malignant neoplasm of overlapping sites of brain
ICD-10 CM	C71.9	Malignant neoplasm of brain, unspecified
ICD-10 CM	C72	Malignancies
ICD-10 CM	D33.3	Benign neoplasm of cranial nerves
ICD-10 CM	E08.42	Diabetes mellitus due to underlying condition with diabetic polyneuropathy
ICD-10 CM	E09.42	Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy
ICD-10 CM	E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
ICD-10 CM	E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy
ICD-10 CM	E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
ICD-10 CM	E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
ICD-10 CM	E13.42	Other specified diabetes mellitus with diabetic polyneuropathy
ICD-10 CM	F01.50	Vascular dementia without behavioral disturbance Includes: arteriosclerotic dementia Code first the underlying physiological condition or sequelae of cerebrovascular disease
ICD-10 CM	F01.51	Vascular Dementia with behavioral disturbance Vascular dementia with aggressive behavior Vascular dementia with combative behavior Vascular dementia with violent behavior Includes: arteriosclerotic dementia Code first the underlying physiological condition or sequelae of cerebrovascular disease
ICD-10 CM	F02	Dementia in other diseases classified elsewhere
ICD-10 CM	F03.90	Unspecified dementia without behavioral disturbance Includes: presenile dementia NOS presenile psychosis NOS primary degenerative dementia NOS senile dementia NOS senile dementia depressed or paranoid type senile psychosis NOS

		Excludes1: senility NOS (R41.81) Excludes2: mild memory disturbance due to known physiological condition senile dementia with delirium or acute confusional state (F05)
ICD-10 CM	F03.91	Unspecified dementia with behavioral disturbance Unspecified dementia with aggressive behavior Unspecified dementia with combative behavior Unspecified dementia with violent behavior
ICD-10 CM	F05	Delirium due to known physiological condition Acute or subacute brain syndrome Acute or subacute confusional state (nonalcoholic) Acute or subacute infective psychosis Acute or subacute psycho-organic syndrome Delirium of mixed etiology Delirium superimposed on dementia Sundowning Code first the underlying physiological condition Excludes1: delirium NOS Excludes2: delirium tremens alcohol-induced or unspecified (F10.231, F10.921
ICD-10 CM	F06.8	Mild memory disturbance
ICD-10 CM	F10.27	Alcohol dependence with alcohol-induced persisting dementia
ICD-10 CM	F20.80	Dementia in other diseases classified elsewhere, without behavioral disturbance Dementia in other diseases classified elsewhere not otherwise specified Code first the underlying physiologic condition
ICD-10 CM	F20.81	Dementia in other diseases classified elsewhere, with behavioral disturbance Dementia in other diseases classified elsewhere with aggressive behavior Dementia in other diseases classified elsewhere with combative behavior Dementia in other diseases classified elsewhere with violent behavior Code first the underlying physiologic condition
ICD-10 CM	F84.0	Autistic disorder
ICD-10 CM	F84.2	Rett's syndrome
ICD-10 CM	F84.3	Other childhood disintegrative disorder
ICD-10 CM	F84.5	Asperger's syndrome
ICD-10 CM	F84.8	Other pervasive developmental disorders
ICD-10 CM	F84.9	Pervasive developmental disorder, unspecified
ICD-10 CM	F88.X	Global developmental delay
ICD-10 CM	F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type
ICD-10 CM	F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type
ICD-10 CM	F90.1	Attention-deficit hyperactivity disorder, predominantly hyperactive type
ICD-10 CM	F90.2	Attention-deficit hyperactivity disorder, combined type
ICD-10 CM	F90.8	Attention-deficit hyperactivity disorder, other type
ICD-10 CM	F90.9	Attention-deficit hyperactivity disorder, unspecified type
ICD-10 CM	F95.1	Tic chronic
ICD-10 CM	F95.2	Tourette syndrome
ICD-10 CM	G10	Huntington's disease
ICD-10 CM	G12.21	Amyotrophic lateral sclerosis
ICD-10 CM	G12.23	Primary lateral sclerosis
ICD-10 CM	G12.24	Familial motor neuron disease
ICD-10 CM	G12.25	Progressive spinal muscle atrophy
ICD-10 CM	G20	Parkinson's Disease Hemiparkinsonism

		Idiopathic Parkinsonism or Parkinson's Disease Paralysis agitans Parkinsonims or Parkinson's disease NOS Primary Parkinsonism or Parkinson's disease
ICD-10 CM	G24.9	Dystonia
ICD-10 CM	G25.0	Essential Tremor
ICD-10 CM	G30.0	Alzheimer's disease with early onset Use additional code to identify: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
ICD-10 CM	G30.01	Pick's disease Circumscribed brain atrophy Progressive isolated aphasia
ICD-10 CM	G30.1	Alzheimer's disease with late onset Use additional code to identify: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
ICD-10 CM	G30.8	Other Alzheimer's disease Use additional code to identify: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
ICD-10 CM	G30.9	Alzheimer's disease, unspecified Use additional code to identify: delirium, if applicable (F05) dementia with behavioral disturbance (F02.81) dementia without behavioral disturbance (F02.80)
ICD-10 CM	G31.09	Other frontotemporal dementia
ICD-10 CM	G31.83	Dementia with Lewy bodies Dementia with Parkinsonism Lewy body dementia Lewy body disease
ICD-10 CM	G31.84	Mild cognitive impairment, so stated
ICD-10 CM	G31.85	Corticobasal degeneration
ICD-10 CM	G31.89	Other specified degenerative diseases of nervous system
ICD-10 CM	G32.89	Other specified degenerative disorders of nervous system in diseases classified elsewhere
ICD-10 CM	G35	Multiple sclerosis
ICD-10 CM	G40.001	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus
ICD-10 CM	G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
ICD-10 CM	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10 CM	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10 CM	G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
ICD-10 CM	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10 CM	G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
ICD-10 CM	G40.201	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus
ICD-10 CM	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus

ICD-10 CM	G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
ICD-10 CM	G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
ICD-10 CM	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10 CM	G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
ICD-10 CM	G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus
ICD-10 CM	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10 CM	G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10 CM	G40.311	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10 CM	G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10 CM	G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus
ICD-10 CM	G40.401	Other generalized epilepsy andf epileptic syndromes, intractable, with status epilepticus
ICD-10 CM	G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
ICD-10 CM	G40.411	Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus
ICD-10 CM	G40.419	Other generalized epilepsy
ICD-10 CM	G40.5?	Special epileptic syndromes
ICD-10 CM	G40.501	Epileptic seizures related to external causes, not intractable, with status epilepticus
ICD-10 CM	G40.822	Epileptic spasms, not intractable, without status epilepticus
ICD-10 CM	G40.824	Epileptic spasms, intractable, without status epilepticus
ICD-10 CM	G40.901	Epilepsy, unspecified, not intractable, with status epilepticus
ICD-10 CM	G40.909	Epilepsy, unspecified, not intractable, without status epilepticus
ICD-10 CM	G40.911	Epilepsy, unspecified, intractable, with status epilepticus
ICD-10 CM	G40.919	Epilepsy, unspecified, intractable, without status epilepticus
ICD-10 CM	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10 CM	G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus
ICD-10 CM	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10 CM	G40.A11	Absence epileptic syndrome, intractable with status epilepticus
ICD-10 CM	G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
ICD-10 CM	G40.A19	Absence epileptic syndrome, intractable, without status epilepticus
ICD-10 CM	G43.001	Migraine without aura, not intractable, with status migrainosus
ICD-10 CM	G43.009	Migraine without aura, not intractable, without status migrainosus
ICD-10 CM	G43.011	Migraine without aura, intractable, with status migrainosus
ICD-10 CM	G43.019	Migraine without aura, intractable, without status migrainosus
ICD-10 CM	G43.101	Migraine with aura, not intractable, with status migrainosus
ICD-10 CM	G43.109	Migraine with aura, not intractable, without status migrainosus

ICD-10 CM	G43.111	Migraine with aura, intractable, with status migrainosus
ICD-10 CM	G43.119	Migraine with aura, intractable, without status migrainosus
ICD-10 CM	G43.501	Persistent migraine aura without cerebral infarction, not intractable, with status migrainosus
ICD-10 CM	G43.509	Persistent migraine aura without cerebral infarction, not intractable, without status migrainosus
ICD-10 CM	G43.511	Persistent migraine aura without cerebral infarction, intractable, with status migrainosus
ICD-10 CM	G43.519	Persistent migraine aura without cerebral infarction, intractable, without status migrainosus
ICD-10 CM	G43.601	Persistent migraine aura with cerebral infarction, not intractable, with status migrainosus
ICD-10 CM	G43.609	Persistent migraine aura with cerebral infarction, not intractable, without status migrainosus
ICD-10 CM	G43.611	Persistent migraine aura with cerebral infarction, intractable, with status migrainosus
ICD-10 CM	G43.619	Persistent migraine aura with cerebral infarction, intractable, without status migrainosus
ICD-10 CM	G43.701	Chronic migraine without aura, not intractable, with status migrainosus
ICD-10 CM	G43.709	Chronic migraine without aura, not intractable, without status migrainosus
ICD-10 CM	G43.711	Chronic migraine without aura, intractable, with status migrainosus
ICD-10 CM	G43.719	Chronic migraine without aura, intractable, without status migrainosus
ICD-10 CM	G43.801	Other migraine, not intractable with status migrainosus
ICD-10 CM	G43.801	Other migraine, not intractable, with status migrainosus
ICD-10 CM	G43.809	Other migraine, not intractable without status migrainosus
ICD-10 CM	G43.809	Other migraine, not intractable, without status migrainosus
ICD-10 CM	G43.811	Other migraine, intractable with status migrainosus
ICD-10 CM	G43.811	Other migraine, intractable, with status migrainosus
ICD-10 CM	G43.819	Other migraine, intractable without status migrainosus
ICD-10 CM	G43.819	Other migraine, intractable, without status migrainosus
ICD-10 CM	G43.821	Menstrual migraine not intractable, withstatus migrainosus
ICD-10 CM	G43.829	Menstrual migraine not intractable, without status migrainosus
ICD-10 CM	G43.830	Menstrual migraine intractable, without status migrainosus
ICD-10 CM	G43.831	Menstrual migraine intractable, with status migrainosus
ICD-10 CM	G43.901	Migraine unspecified not intractable with status migrainosus
ICD-10 CM	G43.909	Migraine unspecified not intractable without status migrainosus
ICD-10 CM	G43.911	Migraine unspecified intractable with status migrainosus
ICD-10 CM	G43.919	Migraine unspecified intractable without status migrainosus
ICD-10 CM	G43.B0	Ophthalmoplegic migraine, not intractable
ICD-10 CM	G43.B1	Ophthalmoplegic migraine, intractable
ICD-10 CM	G43.C0	Periodic headache syndromes in child or adult, not intractable
ICD-10 CM	G43.C1	Periodic headache syndromes in child or adult, intractable
ICD-10 CM	G44.001	Cluster headache syndrome, unspecified, intractable
ICD-10 CM	G44.009	Cluster headache syndrome, unspecified, not intractable
ICD-10 CM	G44.011	Episodic cluster headache, intractable
ICD-10 CM	G44.019	Episodic cluster headache, not intractable
ICD-10 CM	G44.021	Chronic cluster headache, intractable
ICD-10 CM	G44.029	Chronic cluster headache, not intractable
ICD-10 CM	G44.031	Episodic paroxysmal hemicrania, intractable
ICD-10 CM	G44.039	Episodic paroxysmal hemicrania, not intractable
ICD-10 CM	G44.041	Chronic paroxysmal hemicrania, intractable
ICD-10 CM	G44.049	Chronic paroxysmal hemicrania, not intractable

ICD-10 CM	G44.051	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), intractable
ICD-10 CM	G44.059	Short lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT), not intractable
ICD-10 CM	G44.091	Other trigeminal autonomic cephalgias (TAC), intractable
ICD-10 CM	G44.099	Other trigeminal autonomic cephalgias (TAC), not intractable
ICD-10 CM	G44.1	Vascular headache, not elsewhere classified
ICD-10 CM	G44.201	Tension-type headache, unspecified, intractable
ICD-10 CM	G44.209	Tension-type headache, unspecified, not intractable
ICD-10 CM	G44.211	Episodic tension-type headache, intractable
ICD-10 CM	G44.219	Episodic tension-type headache, not intractable
ICD-10 CM	G44.221	Chronic tension-type headache, intractable
ICD-10 CM	G44.229	Chronic tension-type headache, not intractable
ICD-10 CM	G44.301	Post-traumatic headache, unspecified, intractable
ICD-10 CM	G44.309	Post-traumatic headache, unspecified, not intractable
ICD-10 CM	G44.311	Acute post-traumatic headache, intractable
ICD-10 CM	G44.319	Acute post-traumatic headache, not intractable
ICD-10 CM	G44.321	Chronic post-traumatic headache, intractable
ICD-10 CM	G44.329	Chronic post-traumatic headache, not intractable
ICD-10 CM	G44.40	Drug-induced headache, not elsewhere classified, not intractable
ICD-10 CM	G44.41	Drug-induced headache, not elsewhere classified, intractable
ICD-10 CM	G44.51	Hemicrania continua
ICD-10 CM	G44.52	New daily persistent headache (NDPH)
ICD-10 CM	G44.53	Primary thunderclap headache
ICD-10 CM	G44.59	Other complicated headache syndrome
ICD-10 CM	G44.81	Hypnic headache
ICD-10 CM	G44.82	Headache associated with sexual activity
ICD-10 CM	G44.83	Primary cough headache
ICD-10 CM	G44.84	Primary exertional headache
ICD-10 CM	G44.85	Primary stabbing headache
ICD-10 CM	G44.89	Other headache syndrome
ICD-10 CM	G45.0	Vertebro-basilar artery syndrome
ICD-10 CM	G45.1	Carotid artery syndrome
ICD-10 CM	G45.8	Other transient cerebral ischemic attacks and related syndromes
ICD-10 CM	G45.9	Transient cerebral ischemic attack, unspecified
ICD-10 CM	G58.9	Mononeuropathy, unspecified
ICD-10 CM	G59	Mononeuropathy in diseases classified elsewhere
ICD-10 CM	G60.3	Idiopathic progressive neuropathy
ICD-10 CM	G60.9	Hereditary and idiopathic neuropathy, unspecified
ICD-10 CM	G61.89	Other inflammatory polyneuropathies
ICD-10 CM	G61.9	Inflammatory polyneuropathy, unspecified
ICD-10 CM	G62.0	Drug-induced polyneuropathy
ICD-10 CM	G62.1	Alcoholic polyneuropathy
ICD-10 CM	G62.2	Polyneuropathy due to other toxic agents
ICD-10 CM	G63	Polyneuropathy in diseases classified elsewhere
ICD-10 CM	G65.0	Sequelae of Guillain-Barre syndrome
ICD-10 CM	G70.00	Myasthenia gravis without (acute) exacerbation G70.01
ICD-10 CM	G70.01	Myasthenia gravis with (acute) exacerbation
ICD-10 CM	G71.0	Muscular dystrophy
ICD-10 CM	G71.0	Muscular dystrophy
ICD-10 CM	G71.11	Myotonic muscular dystrophy
ICD-10 CM	G71.12	Myotonia congenita
ICD-10 CM	G71.13	Myotonic chondrodystrophy
ICD-10 CM	G71.14	Drug induced myotonia

ICD-10 CM	G71.19	Other specified myotonic disorders
ICD-10 CM	G72.0	Drug-induced myopathy
ICD-10 CM	G72.1	Alcoholic myopathy
ICD-10 CM	G72.2	Myopathy due to other toxic agents
ICD-10 CM	G72.4	Inflammatory and immune myopathies, not elsewhere classified
ICD-10 CM	G72.8	Other specified myopathies
ICD-10 CM	G72.9	Myopathy, unspecified
ICD-10 CM	G80.0	Spastic quadriplegic cerebral palsy
ICD-10 CM	G80.1	Spastic diplegic cerebral palsy
ICD-10 CM	G80.2	Spastic hemiplegic cerebral palsy
ICD-10 CM	G80.3	Athetoid cerebral palsy
ICD-10 CM	G80.4	Ataxic cerebral palsy
ICD-10 CM	G80.8	Other cerebral palsy
ICD-10 CM	G80.9	Cerebral palsy, unspecified
ICD-10 CM	G94	Other disorders of brain in diseases classified elsewhere Code first underlying disease
ICD-10 CM	G96.8	Other specified disorders of central nervous system
ICD-10 CM	H81.0	*Ménière's* disease
ICD-10 CM	H81.1	Benign paroxysmal vertigo
ICD-10 CM	H81.2	Vestibular neuronitis
ICD-10 CM	H81.20	Vestibular neuronitis unspecified ear
ICD-10 CM	H81.21	Vestibular neuronitis right ear
ICD-10 CM	H81.22	Vestibular neuronitis left ear
ICD-10 CM	H81.3	Other peripheral vertigo
ICD-10 CM	H81.4	Vertigo of central origin
ICD-10 CM	H81.8	Other disorders of vestibular function
ICD-10 CM	H81.8X1	Other disorders of vestibular function right ear
ICD-10 CM	H81.8X2	Other disorders of vestibular function left ear
ICD-10 CM	H81.8X9	Other disorders of vestibular function unspecified ear
ICD-10 CM	H81.9	Unspecified disorder of vestibular function
ICD-10 CM	H81.90	Unspecified disorder of vestibular function unspecified ear
ICD-10 CM	H81.91	Unspecified disorder of vestibular function right ear
ICD-10 CM	H81.92	Unspecified disorder of vestibular function left ear
ICD-10 CM	H82	Vertiginous syndromes in diseases classified elsewhere
ICD-10 CM	H83.2X1	Vestibular hypofunction (Labyrinthine dysfunction, right ear)
ICD-10 CM	H83.2X2	Vestibular hypofunction (Labyrinthine dysfunction, left ear)
ICD-10 CM	H83.2X9	Vestibular hypofunction (Labyrinthine dysfunction, unspecified ear)
ICD-10 CM	H83.90	Unspecified disease of inner ear, unspecified ear
ICD-10 CM	H83.91	Unspecified disease of right inner ear
ICD-10 CM	H83.92	Unspecified disease of left inner ear
ICD-10 CM	I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery
ICD-10 CM	I63.011	Cerebral infarction due to thrombosis of right vertebral artery
ICD-10 CM	I63.012	Cerebral infarction due to thrombosis of left vertebral artery
ICD-10 CM	I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries
ICD-10 CM	I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery
ICD-10 CM	I63.02	Cerebral infarction due to thrombosis of left carotid artery
ICD-10 CM	I63.031	Cerebral infarction due to thrombosis of right carotid artery
ICD-10 CM	I63.032	Cerebral infarction due to thrombosis of left carotid artery
ICD-10 CM	I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries
ICD-10 CM	I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery
ICD-10 CM	I63.09	Cerebral infarction due to thrombosis of other precerebral artery
ICD-10 CM	I63.10	Cerebral infarction due to embolism of unspecified precerebral artery
ICD-10 CM	I63.111	Cerebral infarction due to embolism of right vertebral artery
ICD-10 CM	I63.112	Cerebral infarction due to embolism of left vertebral artery

ICD-10 CM	I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries
ICD-10 CM	I63.119	Cerebral infarction due to embolism of unspecified vertebral artery
ICD-10 CM	I63.12	Cerebral infarction due to embolism of basilar artery
ICD-10 CM	I63.12	Cerebral infarction due to embolism of basilar artery
ICD-10 CM	I63.131	Cerebral infarction due to embolism of right carotid artery
ICD-10 CM	I63.131	Cerebral infarction due to embolism of right carotid artery
ICD-10 CM	I63.132	Cerebral infarction due to embolism of left carotid artery
ICD-10 CM	I63.132	Cerebral infarction due to embolism of left carotid artery
ICD-10 CM	I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
ICD-10 CM	I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
ICD-10 CM	I63.139	Cerebral infarction due to embolism of unspecified carotid artery
ICD-10 CM	I63.139	Cerebral infarction due to embolism of unspecified carotid artery
ICD-10 CM	I63.19	Cerebral infarction due to embolism of other precerebral artery
ICD-10 CM	I63.19	Cerebral infarction due to embolism of other precerebral artery
ICD-10 CM	I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries
ICD-10 CM	I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries
ICD-10 CM	I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
ICD-10 CM	I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery
ICD-10 CM	I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
ICD-10 CM	I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery
ICD-10 CM	I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
ICD-10 CM	I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
ICD-10 CM	I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries
ICD-10 CM	I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries
ICD-10 CM	I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery
ICD-10 CM	I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
ICD-10 CM	I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries
ICD-10 CM	I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries
ICD-10 CM	I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries
ICD-10 CM	I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
ICD-10 CM	I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery
ICD-10 CM	I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery
ICD-10 CM	I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery
ICD-10 CM	I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral artery
ICD-10 CM	I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery
ICD-10 CM	I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
ICD-10 CM	I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
ICD-10 CM	I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral artery
ICD-10 CM	I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery
ICD-10 CM	I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
ICD-10 CM	I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery

ICD-10 CM	I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral artery
ICD-10 CM	I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery
ICD-10 CM	I63.341	Cerebral infarction due to thrombosis of right cerebellar artery
ICD-10 CM	I63.342	Cerebral infarction due to thrombosis of left cerebellar artery
ICD-10 CM	I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar artery
ICD-10 CM	I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery
ICD-10 CM	I63.39	Cerebral infarction due to thrombosis of other cerebral artery
ICD-10 CM	I63.40	Cerebral infarction due to embolism of unspecified cerebral artery
ICD-10 CM	I63.411	Cerebral infarction due to embolism of right middle cerebral artery
ICD-10 CM	I63.412	Cerebral infarction due to embolism of left middle cerebral artery
ICD-10 CM	I63.413	Cerebral infarction due to embolism of bilateral middle cerebral artery
ICD-10 CM	I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery
ICD-10 CM	I63.421	Cerebral infarction due to embolism of right anterior cerebral artery
ICD-10 CM	I63.422	Cerebral infarction due to embolism of left anterior cerebral artery
ICD-10 CM	I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral artery
ICD-10 CM	I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery
ICD-10 CM	I63.431	Cerebral infarction due to embolism of right posterior cerebral artery
ICD-10 CM	I63.432	Cerebral infarction due to embolism of left posterior cerebral artery
ICD-10 CM	I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral artery
ICD-10 CM	I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery
ICD-10 CM	I63.441	Cerebral infarction due to embolism of right cerebellar artery
ICD-10 CM	I63.442	Cerebral infarction due to embolism of left cerebellar artery
ICD-10 CM	I63.443	Cerebral infarction due to embolism of bilateral cerebellar artery
ICD-10 CM	I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery
ICD-10 CM	I63.49	Cerebral infarction due to embolism of other cerebral artery
ICD-10 CM	I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
ICD-10 CM	I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
ICD-10 CM	I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
ICD-10 CM	I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral artery
ICD-10 CM	I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery
ICD-10 CM	I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
ICD-10 CM	I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
ICD-10 CM	I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral artery
ICD-10 CM	I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery
ICD-10 CM	I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
ICD-10 CM	I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
ICD-10 CM	I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral artery
ICD-10 CM	I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery
ICD-10 CM	I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
ICD-10 CM	I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery

ICD-10 CM	I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar artery
ICD-10 CM	I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery
ICD-10 CM	I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
ICD-10 CM	I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
ICD-10 CM	I63.8	Other cerebral infarction
ICD-10 CM	I63.9	Cerebral infarction, unspecified
ICD-10 CM	I69.01-	Cognitive deficits following nontraumatic subarachnoid hemorrhage
ICD-10 CM	I69.11-,	Cognitive deficits following nontraumatic intracerebral hemorrhage
ICD-10 CM	I69.21-,	Cognitive deficits following other nontraumatic intracranial hemorrhage
ICD-10 CM	I69.31-,	Cognitive deficits following cerebral infarction
ICD-10 CM	I69.398	Vertigo, post stroke
ICD-10 CM	I69.81-,	Cognitive deficits following other cerebrovascular disease
ICD-10 CM	I69.91-	Cognitive deficits following unspecified cerebrovascular disease
ICD-10 CM	I69.998	Vertigo as a late effect of stroke
ICD-10 CM	M54.5	Low back pain
ICD-10 CM	M54.50	Low back pain, multiple sites in spine
ICD-10 CM	M54.55	Low back pain, thoracolumbar region
ICD-10 CM	M54.56	Low back pain, lumbar region
ICD-10 CM	M54.57	Low back pain, lumbosacral region
ICD-10 CM	M54.58	Low back pain, sacral and sacrococcygeal region
ICD-10 CM	M54.59	Low back pain, site unspecified
ICD-10 CM	R25.2	Spasticity
ICD-10 CM	R41.3	Other amnesia, (i.e., Amnesia NOS and Memory loss NOS)
ICD-10 CM	R42	Vertigo NOS
ICD-10 CM	R51.X	Headache
ICD-10 CM	R56.8	Seizures (otherwise unspecified)
ICD-10 CM	S06.-	Cognitive impairment due to intracranial or head injury
ICD-10 CM	S06.0X0A	Concussion without loss of consciousness, initial encounter
ICD-10 CM	S06.0X0A	Concussion without loss of consciousness, initial encounter
ICD-10 CM	S06.0X0D	Concussion without loss of consciousness, subsequentencounter
ICD-10 CM	S06.0X0D	Concussion without loss of consciousness, subsequentencounter
ICD-10 CM	S06.0X0S	Concussion without loss of consciousness, sequela
ICD-10 CM	S06.0X0S	Concussion without loss of consciousness, sequela
ICD-10 CM	S06.0X9A	Concussion with loss of consciousness of unspecified duration, initial encounter
ICD-10 CM	S06.0X9A	Concussion with loss of consciousness of unspecified duration, initial encounter
ICD-10 CM	S06.0X9D	Concussion with loss of consciousness of unspecified duration, subsequent encounter
ICD-10 CM	S06.0X9D	Concussion with loss of consciousness of unspecified duration, subsequent encounter
ICD-10 CM	S06.0X9S	Concussion with loss of consciousness of unspecified duration, sequela
ICD-10 CM	S06.0X9S	Concussion with loss of consciousness of unspecified duration, sequela
ICD-10 CM	S060X1A	Concussion with loss of consciousness of 30 minutes or less, initial encounter
ICD-10 CM	S060X1A	Concussion with loss of consciousness of 30 minutes or less, initial encounter
ICD-10 CM	S060X1D	Concussion with loss of consciousness of 30 minutes or less, subsequent encounter
ICD-10 CM	S060X1D	Concussion with loss of consciousness of 30 minutes or less, subsequent encounter
ICD-10 CM	S060X1S	Concussion with loss of consciousness of 30 minutes or less, sequela
ICD-10 CM	S060X1S	Concussion with loss of consciousness of 30 minutes or less, sequela