

# NATIONAL QUALITY FORUM

## Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

<b>NQF #:</b> 1985	<b>NQF Project:</b> <a href="#">Neurology Project</a>
(for Endorsement Maintenance Review)	
<b>Original Endorsement Date:</b>	<b>Most Recent Endorsement Date:</b> Last Updated Date: <a href="#">Oct 21, 2015</a>
<b>BRIEF MEASURE INFORMATION</b>	
<b>De.1 Measure Title:</b> <a href="#">Parkinson's Disease: Querying About Sleep Disturbances</a>	
<b>Co.1.1 Measure Steward:</b> <a href="#">American Academy of Neurology</a>	
<b>De.2 Brief Description of Measure:</b> All patients with a diagnosis of Parkinson's disease (or caregivers, as appropriate) who were queried about sleep disturbances at least annually.	
<b>2a1.1 Numerator Statement:</b> Patients (or caregiver(s), as appropriate) who were queried about sleep disturbances at least annually.	
<b>2a1.4 Denominator Statement:</b> All patients with a diagnosis of Parkinson's disease.	
<b>2a1.8 Denominator Exclusions:</b> Denominator Exclusion(s): Documentation of medical reason for not querying patient (or caregiver) about sleep disturbances (e.g., patient is unable to respond and no informant is available). <ul style="list-style-type: none"> <li>Append modifier to CPT II code: 4328F-1P</li> </ul>	
<b>1.1 Measure Type:</b> <a href="#">Process</a> <b>2a1. 25-26 Data Source:</b> <a href="#">Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry</a> <b>2a1.33 Level of Analysis:</b> <a href="#">Clinician : Individual</a>	
<b>1.2-1.4 Is this measure paired with another measure?</b> <a href="#">No</a>	
<b>De.3 If included in a composite, please identify the composite measure (title and NQF number if endorsed):</b> <a href="#">N/A</a>	

<b>STAFF NOTES</b> (issues or questions regarding any criteria)
<b>Comments on Conditions for Consideration:</b>
<b>Is the measure untested?</b> Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> If untested, explain how it meets criteria for consideration for time-limited endorsement:
<b>1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (check De.5):</b> <b>5. Similar/related <a href="#">endorsed</a> or submitted measures (check 5.1):</b> <b>Other Criteria:</b>
<b>Staff Reviewer Name(s):</b>

## 1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

**Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)**

### 1a. High Impact: **H O M O L O I O**

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

**De.4 Subject/Topic Areas** (Check all the areas that apply): [Neurology](#)

**De.5 Cross Cutting Areas** (Check all the areas that apply): [Health and Functional Status](#), [Health and Functional Status : Development/Wellness](#), [Health and Functional Status : Functional Status](#), [Safety](#), [Safety : Complications](#)

**1a.1 Demonstrated High Impact Aspect of Healthcare:** [Affects large numbers](#), [A leading cause of morbidity/mortality](#), [Patient/societal consequences of poor quality](#), [Severity of illness](#)

**1a.2 If "Other," please describe:**

**1a.3 Summary of Evidence of High Impact** (Provide epidemiologic or resource use data):

[According to the Parkinson's Disease Foundation, Parkinson's disease affects about 1 million people in the United States and more than 4 million people worldwide. The disorder occurs in all races, but Parkinson's is somewhat more prevalent among Caucasians.](#)

[Men develop the disease slightly more often than women.1](#)

[Parkinson's disease ranks among the most common late-life neurodegenerative diseases, affecting approximately 1.5% to 2.0% of the population older than age 60 years.2](#)

[This measure would impact and benefit all patients diagnosed with Parkinson's disease. Parkinson's disease affects both men and women. The average age of onset of Parkinson's disease is 61, but it may begin as early as age 40 or even before. The number of people in the United States with Parkinson's disease is estimated to be between 500,000 and one million, with about 50,000 to 60,000 new diagnoses each year. That number is growing every year as the American population ages.](#)

["Sleep problems may be an early sign of Parkinson's disease, even before motor symptoms have begun.](#)

[Some of the common sleep problems for Parkinson's patients include:](#)

- [• Insomnia](#)
- [• Excessive daytime sleepiness](#)
- [• Nightmares](#)
- [• Sleep attacks \(a sudden involuntary episode of sleep\)](#)
- [• REM sleep behavior disorder \(acting out dreams during sleep\)](#)
- [• Periodic leg movement disorder \(PLMD\)](#)
- [• Restless legs syndrome \(RLS\)](#)
- [• Sleep apnea](#)
- [• Nocturia \(frequent nighttime urination\)](#)

[A recent study by UCLA researchers found an association between Parkinson's disease and narcolepsy, a disorder caused by the brain's inability to regulate sleep/wake cycles normally. The study revealed that patients with Parkinson's disease and those with narcolepsy both display a loss of orexin/hypocretin \(Hcrt\) cells in the brain and that loss of Hcrt cells is correlated with severity of PD. However, there is no reason to believe that narcolepsy patients are at increased risk of developing Parkinson's disease. According to study author Jerry Siegel, PhD, professor of psychiatry and biobehavioral sciences at the Semel Institute for](#)

Neuroscience and Human Behavior at UCLA, the cause of the hypocretin cell loss in Parkinson's is likely to be quite different from the cause of this cell loss in narcolepsy. There may also be a connection between REM sleep behavior disorder (dream-enacting behaviors during sleep) and the subsequent development of Parkinson's disease. In one study, researchers found that up to 75% of patients with REM behavior disorder went on to develop a Parkinsonian disorder, presumably Parkinson's disease. In addition, people with Parkinson's disease are at higher risk for restless legs syndrome (RLS) and periodic leg movement disorder, two conditions that may seriously disrupt sleep. However, there is no evidence that RLS or PLMD are risk factors for Parkinson's disease. In addition to sleep problems, people with Parkinson's disease often experience sleepiness during the daytime. In fact, one study found daytime sleepiness in 76% of Parkinson's patients. These sleep-related symptoms can have a major impact on quality of life for Parkinson's patients and treatment for these problems should be integrated with their therapeutic regimens. Because of the mystery surrounding the origin of Parkinson's disease, a great deal of research has been done on this problem. We know that the symptoms of Parkinson's are primarily the result of the gradual loss of dopaminergic cells (neurons that release dopamine, a neurotransmitter that activates dopamine receptors) in the brain. Some Parkinson's research has focused on the relationship between Parkinson's and both the timing and duration of sleep. For example, a 12-year study by researchers at the National Institute of Environmental Health Sciences of the U.S. National Institutes of Health found that among nearly one million nurses, working the night shift was associated with a lower risk of Parkinson's disease. They also found that long sleep (sleeping 9 hours or more) was associated with a higher risk. People with Parkinson's disease have a shortened life expectancy and may find it difficult to maintain their quality of life. Striving to maintain healthy sleep habits can help Parkinson's patients with both the physical and psychological symptoms of their disease" (3)

**1a.4 Citations for Evidence of High Impact cited in 1a.3: 1.**

(<http://www.healthcommunities.com/parkinsons-disease/incidence-prevalence.shtml>)

2. (<http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/neurology/parkinsons-disease/>)

3. National Sleep Foundation "Parkinson's disease and sleep" Accessed 9.2012.

<http://www.sleepfoundation.org/article/sleep-topics/parkinsons-disease-and-sleep>

**1b. Opportunity for Improvement: H● M● L● I●**

*(There is a demonstrated performance gap - variability or overall less than optimal performance)*

**1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:**

Sleep disorders are common in Parkinson's disease and most commonly include sleep fragmentation (80%), restless legs syndrome (20%), REM behavior sleep disorder (>40%), and excessive daytime sleepiness (~50%). Sleep fragmentation could relate to motor symptoms such as tremor and dystonia, restless legs syndrome, depression, anxiety, agitation, urinary frequency, or medication (most notably selegiline but also dopamine agonists). Several approaches to effective therapy are available. Excessive daytime sleepiness could result in sleep attacks or unintended sleep episodes. Such episodes have been described in various situations, including while driving a car. Excessive daytime sleepiness may result from medication (dopamine agonists), dementia, psychosis, or poor nocturnal sleep hygiene and is generally more common in advanced Parkinson's disease. Medication adjustment and the use of stimulants may be warranted. REM behavior disorder is defined by the patient acting out dreams. The result could be either the patient or spouse moving to a different bedroom. This syndrome is treated with benzodiazepines and other medications. Assessing sleep would be expected to lead to improved morbidity and function.

**1b.2 Summary of Data Demonstrating Performance Gap** *(Variation or overall less than optimal performance across providers): [For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.]*

Sleep disturbances are among the most common nonmotor symptoms, with a prevalence ranging from approximately 40% to 90%, and these disturbances can interfere with patients' quality of life [2–5]. Various factors, including nocturnal motor symptoms, psychiatric symptoms, dementia, dopaminergic medications,

and circadian cycle disruptions, cause sleep disturbances [6]. Comorbidity with sleep apnea syndrome (SAS), restless legs syndrome (RLS), and rapid eye movement sleep behavior disorder (RBD) is often observed, complicating the sleep disturbances related to PD. The orexin system may be involved in PD, contributing to the daytime sleepiness independent of impaired sleep conditions.

Sleep disturbances in patients with Parkinson's disease (PD) are common, are often severe, and are typically under-recognized and ineffectively treated. After the recognition that some patients with PD could fall asleep unexpectedly when driving, with resulting dangerous consequences, it became evident not only that PD medications might be partly responsible but that there were many additional factors contributing to sleep disturbance in these patients.

Sleep disorders are common and are often severe in Parkinson's disease (PD).<sup>5</sup> Nocturnal sleep disturbance occurs in 60% to 98% of patients.<sup>6</sup> The sleep disturbance correlates with disease severity, Schwab and England Score, Unified Parkinson Disease Rating Scale (UPDRS) motor score, levodopa dose, rigidity, and bradykinesia.<sup>7</sup> About 40% of patients with PD take sleeping pills, significantly more than are taken by elderly people without PD.<sup>6</sup>

Deficiencies have been found in slow-wave sleep, REM/sleep proportions, NREM stages 3 and 4, total sleep time, sleep latency, and sleep efficiency in patients with PD. Sleep fragmentation occurred about three times more frequently in patients with PD than in healthy controls (38.9% versus 12%).<sup>6</sup> Comparison of polysomnographic sleep measures in 10 drug-free patients with PD and 10 age-matched healthy controls showed that patients with PD had significantly less total sleep time, less sleep period time, and reduced sleep efficiency (table 1).<sup>8</sup> Patients with PD had more frequent awakenings and greater overall waking time than controls. The groups did not differ in the relative amount of stage 1 and stage 2 sleep, slow-wave sleep, or REM sleep. Five patients with PD but no control subjects showed abnormal REM sleep features.<sup>8</sup> Not all studies have found sleep problems in PD. Sleep disruptions were not observed in patients with newly diagnosed PD compared to healthy controls nor between patients with mild and severe PD.<sup>9</sup> However, both the mild and severe groups slept poorly compared to controls, with decreased sleep efficiency, increased sleep latency, and decreased REM sleep.<sup>9</sup>

Sleep disorders are common in patients with PD, and multiple factors can contribute to disturbed nocturnal sleep and daytime sleepiness. These factors include the presence of insomnia, mood or anxiety disorders, dementia, specific sleep disorders, PD motor disorders, and the effects of certain medications. Patients with PD should be questioned about sleep disturbance and daytime sleepiness (table 3), and because of underestimation of the severity of sleepiness or lack of awareness they should preferably be interviewed in the presence of a relative or caregiver.

**1b.3 Citations for Data on Performance Gap:** [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]

Adler CH, Thorpy MJ. Sleep issues in Parkinson's disease. *Neurology*. 2005 Jun 28;64(12 Suppl 3):S12-20.

**1b.4 Summary of Data on Disparities by Population Group:** [*For Maintenance – Descriptive statistics for performance results for this measure by population group*]

African American patients and those with lower socioeconomic status have more advanced disease and greater disability when they seek treatment from Parkinson's disease specialists, according to a study from the University of Maryland School of Medicine. The researchers found that race, education and income were each significant and independent factors in determining a patient's level of disability. The disparities in health care are associated with greater disease severity and earlier loss of independence.

The cause of these racial and socioeconomic disparities is unclear, but possible explanations include problems with access to health care, reduced physician referral rate or patient reluctance to seek care from

a movement disorders specialist.

**1b.5 Citations for Data on Disparities Cited in 1b.4: [For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]**

L. Schulman, V. Bhat; Gender Disparities in Parkinson's Disease; Expert Rev Neurother. 2006 Mar;6(3):407-16

**1c. Evidence** (Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)

**Is the measure focus a health outcome?** Yes ☐ No ☐ **If not a health outcome, rate the body of evidence.**

**Quantity:** H ☐ M ☐ L ☐ I ☐ **Quality:** H ☐ M ☐ L ☐ I ☐ **Consistency:** H ☐ M ☐ L ☐ I ☐

Quantity	Quality	Consistency	Does the measure pass subcriterion 1c?
M-H	M-H	M-H	Yes <input type="radio"/>
L	M-H	M	Yes <input type="radio"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="radio"/>
M-H	L	M-H	Yes <input type="radio"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="radio"/>
L-M-H	L-M-H	L	No <input type="radio"/>

**Health outcome** – rationale supports relationship to at least one healthcare structure, process, intervention, or service

**Does the measure pass subcriterion 1c?**  
Yes ☐ IF rationale supports relationship

**1c.1 Structure-Process-Outcome Relationship** (Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process-health outcome; intermediate clinical outcome-health outcome):

Regular review of sleep disturbances will identify those issues early and the patient can receive the appropriate treatment with the goal of decreasing incidences of excessive daytime somnolence. As sleep disturbances for PD can cause excessive daytime somnolence that can have serious consequences on safety and social functioning, it is important for those providing care to PD patients to perform a regular reviewing of those symptoms associated with sleep disturbances and obtain a thorough sleep history. Querying about sleep disorders or disturbances at least annually will identify any problems with sleep (disorders or disturbances), provide appropriate treatment, improve patient safety by identified daytime somnolence issues and how to mitigate them, and finally improve the patient's quality of life.

The American Academy of Neurology has preliminary data from the implementation of these measures into the Maintenance of Certification Performance in Practice (NeuroPI) Parkinson's disease Modules. There have been 119 physicians to date who have enrolled in Parkinson's disease modules. However, the extrapolation of data from this module is not yet appropriate as the sample size is believed to be too small to be able to provide generalizable data. However, by the time this measure comes back to the NQF for the end of the Temporary Endorsement period (estimated by 1/2014) there will be additional data available to support the link of this measure to the desired patient outcomes. In addition, we will have some data back from the CECity registry database, which just went live in August 2012, by 1/2014 to add additional support to this measure.

**1c.2-3 Type of Evidence** (Check all that apply):

Clinical Practice Guideline, Other, Systematic review of body of evidence (other than within guideline development)



## indicator paper

**1c.4 Directness of Evidence to the Specified Measure** (*State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population*):

Evidence listed for this measure states that a complete sleep history should be taken or the patient should be assessed for a sleep disturbance. The measure development work group felt that an "assessment" via standardized sleep study was not necessary to meet the objectives and expected patient outcomes for this measure. It was noted by the both the work group and by public during the public comment period that many patients will/do not have access to a sleep lab for a sleep study. It determined that the most appropriate course of action for this measure would be for the clinician to query the patient (and/or caregiver) about sleep disturbances or disorders and then if any issues arose to seek appropriate additional testing or treatment of the sleep disorder or disturbance.

**1c.5 Quantity of Studies in the Body of Evidence** (*Total number of studies, not articles*): 3  
recommendation statements/indicators were used as the basis for this quality measure.

**1c.6 Quality of Body of Evidence** (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): The guideline/indicator authors did not provide an explicit process or documentation of a process like GRADE whereby precision, directness, etc were detailed in a systematic review to demonstrate the quality of the body of evidence for this measure. The available information from the guideline/indicator paper is provided below.

### Recommendation:

A full sleep history should be taken from people with PD who report sleep disturbance (Level D) NICE GL35 (Jun 2006)

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

### Primary Evidence:

The spectrum of PD includes many problems that do not directly affect motor function. These non-motor features are of crucial importance to people since they have a major impact on quality of life.<sup>28,286</sup>

Non-motor features comprise:

- \_ mental health problems
- \_ depression and dementia
- \_ falls and potential fractures
- \_ sleep disturbance
- \_ autonomic disturbance and pain.

Assessment should include a thorough sleep history including:

- \_ enquiry about the three phases of sleep: initiation, maintenance and awakening
- \_ enquiry about leg movements – periodic leg movements in sleep, RLS
- \_ hallucinations and vivid dreams
- \_ questioning whether dreams are acted out, sometimes violently, indicative of RBD, which occurs in up to 15% of people with PD and may precede the diagnosis of PD.

One of the most common sleep disorders seen in PD is RLS. The International RLS Study Group criteria for the diagnosis of RLS are:

- \_ desire to move the extremities, usually associated with discomfort or disagreeable sensations in the extremities
- \_ motor restlessness – people move to relieve the discomfort (eg walking, or providing a counter-stimulus to relieve the discomfort such as rubbing the legs)
- \_ symptoms are worse at rest with at least temporary relief by activity
- \_ symptoms are worse later in the day or at night.

Three placebo-controlled, double-blind RCTs were found which investigated the effectiveness of modafinil treatment for sleep disorders in people with PD. Two of the studies used a 200 mg/d dose<sup>325,326</sup> while the third increased the dose to 400 mg/d after 1 week.

All studies were small (N=15, 21 and 40)<sup>325,326,327</sup> and of short duration (between 4 and 8 weeks). The mean age of the people included in these studies was 65 years, with mean disease duration of 7 years.

No RCTs were found on the specific treatment of RBD and RLS in PD.

With respect to the Epworth Sleepiness Scale (ESS):

- \_ One study<sup>325</sup> demonstrated the change in ESS was statistically significant in favour of modafinil treatment (95% CI –8.6 to –0.2, p=0.039). (1+)
- \_ Another study<sup>327</sup> found no significant change in ESS between modafinil and placebo groups. (1++)

With respect to patient-rated scales:

- \_ The patient-rated CGI scale improved significantly on modafinil (p=0.07).<sup>325</sup> (1+)
- \_ There was no difference between modafinil and placebo groups in terms of change in sleepiness 'much or very much improved'.<sup>327</sup> (1++)

With respect to other outcome measures:

- \_ There were no significant differences between modafinil and placebo in the largest study for the following:
  - UPDRS ADL and motor scores
  - Multiple sleep latency test
  - SF-36
  - Fatigue Severity Scale
  - Hamilton depression scale
  - adverse events
  - withdrawal rates. (1++)
- \_ There were no significant differences between modafinil and placebo for the following in the two smaller studies:
  - Maintenance of Wakefulness Test
  - mean changes in sleep latency
  - sleep logs (similar amounts of sleep)
  - Beck depression scores
  - physician-rated CGIC
  - worsening/improvement of PD signs
  - UPDRS scores, Hoehn and Yahr scores, timed tapping tests or patient diaries
  - percentage on time
  - adverse events
  - withdrawal rates. (1+)

Recommendation:

Good sleep hygiene should be advised in people with PD with any sleep disturbance and includes: 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) NICE GL35 (June 2006)  
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

#### Primary Evidence:

Sleep problems are common in PD and comprise:

- \_ daytime hypersomnolence
- \_ nocturnal akinesia
- \_ restless leg syndrome (RLS) (Ekbom's syndrome)
- \_ periodic leg movements of sleep
- \_ REM sleep behaviour disorder (RBD)
- \_ sudden onset of sleep
- \_ vivid dreams and/or hallucinations
- \_ nocturia (passing of urine frequently – three times or more – at night)
- \_ sleep fragmentation.

They are particularly taxing to people with PD and their bed-partners because of their mixed nature comprising motor, sensory and sleep issues. In addition, if inadequate rest is gained by night, there is a high prevalence of excessive daytime somnolence that may have serious consequences on social functioning and safety.

#### Recommendation:

All veterans with PD should be reassessed for complications of PD (including, but not limited to functional status, excessive daytime somnolence, speech and swallowing difficulties, dementia, depression, and psychosis) at least on an annual basis. Cheng #10 (Reassessment for complications for PD) 2004  
2. Cheng Eric, Siderowf Andrew, Swaztrauber Kari, Eisa Mahmood, Lee Martin and Vickrey Barbara. Development of Quality of Care Indicators for Parkinson's disease Movement Disorders Vol. 19, No.2, 2004 (P136-150)

#### Primary Evidence:

After reviewing this literature, a set of 46 potential quality indicators were drafted for quality of care issues specific to PD. These indicators were grouped into five "domains" of care: Initial Diagnosis and Treatment; Management of Motor Complications; Management of Non-Motor Complications; Management of Dementia, Depression, and Psychosis; and Education and Reporting. These 46 indicators are listed in Table 1A (Appendix 1).

Of the 46 potential PD-specific indicators, 5 did not meet the validity threshold and 3 did not meet the feasibility threshold (Table 2), leaving a final set of 38 PD-specific indicators that did meet minimum criteria for validity and feasibility and, thus, are potentially suitable for assessing quality of care (Table 2). All indicators in the domains of Management of Motor Complications and Management of Dementia, Depression, and Psychosis met these thresholds, compared to only 33% of the indicators from the Education and Reporting domain (Table 3).

Of the 38 PD-specific indicators meeting criteria for validity and feasibility, 16 also met criteria for having the highest potential value for subsequent quality improvement interventions (Table 2). Among the highest-rated indicators were ones that dealt with dopaminergic therapy, assessment of functional status, and assessment of depression. At least one indicator from each domain of care was in the highlighted list. Applying our criteria for highlighting indicators of highest potential value for subsequent quality improvement interventions in PD, we identified 13 of the 33 PD-relevant ACOVE indicators (Table 4). Among the highest rated indicators were ones in the areas of coordination of care, medication use, and recognition and



treatment of depression (Table 4).

Pairwise partial correlations that accounted for clustering showed that overall utility rating of an indicator was associated with validity, feasibility, impact on outcomes, and room for improvement ( $P \leq 0.001$ ; Table 5).

Clustered multivariable regression modeling showed that validity ( $P \leq 0.003$ ) and impact on outcomes ( $P \leq 0.0001$ ) criteria were uniquely associated with the overall utility rating, while feasibility and room for improvement were not ( $P \leq 0.1$ ).

The ACOVE indicators on coordination of care and medication use were also highly ranked by the panel. Medical information on every VA patient is recorded in a single medical chart, allowing a VA provider to quickly review medical care rendered by another VA provider. The VA's electronic medical record system contains a link to the VA pharmacy record that shows an updated medication list for each patient. By comparing performances of these indicators in the VA with those found in two-managed care plans in which ACOVE has already been implemented, we can examine whether the features of an integrated electronic medical system are linked to better coordination of care and medication use.

**1c.7 Consistency of Results across Studies** (*Summarize the consistency of the magnitude and direction of the effect*): These findings were consistent as related to disability measured by the Schwab and England scores. The scores also correlated with disease severity as measured by the Hoehn and Yahr scales.

**1c.8 Net Benefit** (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms*):

See quality of body of evidence question

**1c.9 Grading of Strength/Quality of the Body of Evidence.** Has the body of evidence been graded? **No**

**1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:** [NICE Grading scheme](#)  
[Cheng Grading scheme](#)

**1c.11 System Used for Grading the Body of Evidence:** [GRADE](#)

**1c.12 If other, identify and describe the grading scale with definitions:**

**1c.13 Grade Assigned to the Body of Evidence:** [NICE level D](#)

**1c.14 Summary of Controversy/Contradictory Evidence:** [N/A](#)

**1c.15 Citations for Evidence other than Guidelines**(*Guidelines addressed below*):

[Cheng Eric, Siderowf Andrew, Swartztrauber Kari, Eisa Mahmood, Lee Martin and Vickrey Barbara. Development of Quality of Care Indicators for Parkinson's disease Movement Disorders Vol. 19, No.2, 2004 \(P136-150\)](#)

All veterans with PD should be reassessed for complications of PD (including, but not limited to functional status, excessive daytime somnolence, speech and swallowing difficulties, dementia, depression, and psychosis) at least on an annual basis. [Cheng #10 \(Reassessment for complications for PD\) 2004](#)

**1c.16 Quote verbatim, the specific guideline recommendation** (*Including guideline # and/or page #*):

A full sleep history should be taken from people with PD who report sleep disturbance (Level D) [NICE GL35 \(Jun 2006\)](#)

Good sleep hygiene should be advised in people with PD with any sleep disturbance and includes: 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) (Level D) NICE GL35 (June 2006)

**1c.17 Clinical Practice Guideline Citation:** 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  
Cheng Eric, Siderowf Andrew, Swaztrauber Kari, Eisa Mahmood, Lee Martin and Vickrey Barbara. Development of Quality of Care Indicators for Parkinson's disease Movement Disorders Vol. 19, No.2, 2004 (P136-150)

**1c.18 National Guideline Clearinghouse or other URL:**  
<http://www.aan.com/globals/axon/assets/9084.pdf>;  
<http://www.guideline.gov/search/search.aspx?term=parkinson+aan>

**1c.19 Grading of Strength of Guideline Recommendation.** Has the recommendation been graded? **Yes**

**1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:** **American Academy of Neurology**

**1c.21 System Used for Grading the Strength of Guideline Recommendation:** **Other**

**1c.22 If other, identify and describe the grading scale with definitions:** **NICE:**  
Rating Scheme for Strength of the Evidence  
Ia-Systematic review or meta-analysis of randomized controlled trials  
Ib-At least one randomized controlled trial  
IIa-At least one well-designed controlled study without randomization  
IIb-At least one well-designed quasi-experimental descriptive studies, such as a cohort study  
III-Well-designed non-experimental descriptive studies, case-control studies, and case studies  
IV-Expert committee reports, opinions and/or clinical experience of respected authorities

#### Rating Recommendations

A\* Directly based on category I evidence (meta-analysis of randomized controlled trials (RCTs) or at least one RCT)

B\* Directly based on category II evidence (at least one controlled study without randomization or at least one other quasi-experimental study) or extrapolated from category I evidence

C\* Directly based on category III evidence (non-experimental descriptive studies) or extrapolated from category I or II evidence

D\* Directly based on category III evidence (expert committee reports or opinions and/or clinical experience of respected authorities) or extrapolated from category I, II or III evidence

N Recommendation taken from NICE guideline or technology appraisal guidance

**1c.23 Grade Assigned to the Recommendation:** **NICE Level D**

**1c.24 Rationale for Using this Guideline Over Others:** **Supports the basis for the measure and demonstrates the gap in current care provided.**

**Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?**

1c.25 Quantity: [High](#) 1c.26 Quality: [Moderate](#) 1c.27 Consistency: [High](#)  
 1c.28 Attach evidence submission form:  
 1c.29 Attach appendix for supplemental materials:

**Was the threshold criterion, *Importance to Measure and Report*, met?  
 (1a & 1b must be rated moderate or high and 1c yes) Yes ☒ No ☒  
 Provide rationale based on specific subcriteria:**

**For a new measure if the Committee votes NO, then STOP.  
 For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.**

## 2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (**evaluation criteria**)

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

**S.1 Measure Web Page** (*In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? [Yes](#)

**S.2 If yes, provide web page URL:** <http://www.aan.com/globals/axon/assets/9084.pdf>

### 2a. RELIABILITY. Precise Specifications and Reliability Testing: H ☒ M ☒ L ☒ I ☒

#### 2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

**2a1.1 Numerator Statement** (*Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome*):

[Patients \(or caregiver\(s\), as appropriate\) who were queried about sleep disturbances at least annually.](#)

**2a1.2 Numerator Time Window** (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):

[At least once annually](#)

**2a1.3 Numerator Details** (*All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses*):

[Report the CPT Category II, Querying about Sleep Disturbances 4328F.](#)

**2a1.4 Denominator Statement** (*Brief, narrative description of the target population being measured*):  
[All patients with a diagnosis of Parkinson's disease.](#)

**2a1.5 Target Population Category** (*Check all the populations for which the measure is specified and tested if any*): [Populations at Risk](#)

**2a1.6 Denominator Time Window** (*The time period in which cases are eligible for inclusion*):  
[At least once annually](#)

**2a1.7 Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

- CPT @Procedure Codes:

99201 99202 99203 99204 99205 99212 99214 99215 99241 99242 99244 99245 99304 99305 99306 99307 99308 99309 99310

AND

- ICD-9 diagnosis codes:

332.0

**2a1.8 Denominator Exclusions** (Brief narrative description of exclusions from the target population):

Denominator Exclusion(s): Documentation of medical reason for not querying patient (or caregiver) about sleep disturbances (e.g., patient is unable to respond and no informant is available).

- Append modifier to CPT II code: 4328F-1P

**2a1.9 Denominator Exclusion Details** (All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

Denominator Exclusion(s): Documentation of medical reason for not querying patient (or caregiver) about sleep disturbances (e.g., patient is unable to respond and no informant is available).

- Append modifier to CPT II code: 4328F-1P

**2a1.10 Stratification Details/Variables** (All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):

N/A

**2a1.11 Risk Adjustment Type** (Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13): No risk adjustment or risk stratification

**2a1.12 If "Other," please describe:**

**2a1.13 Statistical Risk Model and Variables** (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):

N/A

**2a1.14-16 Detailed Risk Model Available at Web page URL** (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

**2a1.17-18. Type of Score:**

**2a1.19 Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score):

**2a1.20 Calculation Algorithm/Measure Logic**(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.):

N/A

**2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:**

**2a1.24 Sampling (Survey) Methodology.** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

N/A

**2a1.25 Data Source** (*Check all the sources for which the measure is specified and tested*). If other, please describe:

Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Registry

**2a1.26 Data Source/Data Collection Instrument** (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): AAN NeuroPI-NeuroPI clinical modules are designed to help neurologists meet the American Board of Psychiatry and Neurology (ABPN) Part 4 performance in practice requirement for Maintenance of Certification (MOC). There is a Parkinson disease module that includes this quality measure.

National Parkinson Foundation Registry

CECity PQRI Wizard

Physician Quality Reporting System (2012) program measure

**2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:**

**2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:**

URL

<http://www.aan.com/go/practice/quality/measurements>

**2a1.33 Level of Analysis** (*Check the levels of analysis for which the measure is specified and tested*):

Clinician : Individual

**2a1.34-35 Care Setting** (*Check all the settings for which the measure is specified and tested*): Ambulatory Care : Clinician Office/Clinic, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

**2a2. Reliability Testing.** (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

**2a2.1 Data/Sample** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

N/A

**2a2.2 Analytic Method** (*Describe method of reliability testing & rationale*):

N/A

**2a2.3 Testing Results** (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*):

N/A

**2b. VALIDITY. Validity, Testing, including all Threats to Validity: H M L I**

**2b1.1 Describe how the measure specifications (measure focus, target population, and exclusions) are**

**consistent with the evidence cited in support of the measure focus (criterion 1c) and identify any differences from the evidence:**

N/A

**2b2. Validity Testing.** (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

**2b2.1 Data/Sample** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

N/A

**2b2.2 Analytic Method** (*Describe method of validity testing and rationale; if face validity, describe systematic assessment*):

N/A

**2b2.3 Testing Results** (*Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment*):

N/A

**POTENTIAL THREATS TO VALIDITY.** (*All potential threats to validity were appropriately tested with adequate results.*)

**2b3. Measure Exclusions.** (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

**2b3.1 Data/Sample for analysis of exclusions** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

No exclusions

**2b3.2 Analytic Method** (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference*):

N/A

**2b3.3 Results** (*Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses*):

N/A

**2b4. Risk Adjustment Strategy.** (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

**2b4.1 Data/Sample** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

N/A

**2b4.2 Analytic Method** (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables*):

N/A

**2b4.3 Testing Results** (*Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata*):

N/A

**2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to**



**justify lack of adjustment:** N/A

**2b5. Identification of Meaningful Differences in Performance.** *(The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.)*

**2b5.1 Data/Sample** *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

N/A

**2b5.2 Analytic Method** *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):*

N/A

**2b5.3 Results** *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance):*

N/A

**2b6. Comparability of Multiple Data Sources/Methods.** *(If specified for more than one data source, the various approaches result in comparable scores.)*

**2b6.1 Data/Sample** *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

N/A

**2b6.2 Analytic Method** *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):*

N/A

**2b6.3 Testing Results** *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted):*

N/A

**2c. Disparities in Care:** H ☒ M ☒ L ☒ I ☒ NA ☒ *(If applicable, the measure specifications allow identification of disparities.)*

**2c.1 If measure is stratified for disparities, provide stratified results** *(Scores by stratified categories/cohorts):* N/A

**2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:**

N/A

**2.1-2.3 Supplemental Testing Methodology Information:**

**Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?** *(Reliability and Validity must be rated moderate or high)* Yes ☒ No ☒

**Provide rationale based on specific subcriteria:**

**If the Committee votes No, STOP**

### 3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. **(evaluation)**

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable

Created on: 10/27/2015 at 06:43 AM

**criteria)**

**C.1 Intended Actual/Planned Use** (Check all the planned uses for which the measure is intended):  
 Payment Program, Professional Certification or Recognition Program, Public Reporting, Quality Improvement (Internal to the specific organization), Regulatory and Accreditation Programs

**3.1 Current Use** (Check all that apply; for any that are checked, provide the specific program information in the following questions): Public Reporting, Payment Program, Professional Certification or Recognition Program, Regulatory and Accreditation Programs, Quality Improvement (Internal to the specific organization)

**3a. Usefulness for Public Reporting: H ☒ M ☒ L ☒ I ☐**

(The measure is meaningful, understandable and useful for public reporting.)

**3a.1. Use in Public Reporting - disclosure of performance results to the public at large** (If used in a public reporting program, provide name of program(s), locations, Web page URL(s)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[For Maintenance** – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.]

All of six Parkinson's disease measures are currently in use in the 2012 Physician Quality Reporting System program. They have also been implemented in the CE City Registry, a CMS qualified registry for PQRS, so that physicians can complete the registry and individual claims based measures. In addition, these measures were used as the basis for the American Academy of Neurology's Maintenance of Certification Performance in Practice (NeuroPI) Parkinson's disease Modules. Although we do not have specific data to identify which physicians are using these measures, we do know that many AAN members have told the AAN that they are aware of these measures and are using them in their practices.

**3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting.** If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: Sleep disorders are common in Parkinson's disease and most commonly include sleep fragmentation (80%), restless legs syndrome (20%), REM behavior sleep disorder (>40%), and excessive daytime sleepiness (~50%). Sleep fragmentation could relate to motor symptoms such as tremor and dystonia, restless legs syndrome, depression, anxiety, agitation, urinary frequency, or medication (most notably selegiline but also dopamine agonists). Several approaches to effective therapy are available. Excessive daytime sleepiness could result in sleep attacks or unintended sleep episodes. Such episodes have been described in various situations, including while driving a car. Excessive daytime sleepiness may result from medication (dopamine agonists), dementia, psychosis, or poor nocturnal sleep hygiene and is generally more common in advanced Parkinson's disease. Medication adjustment and the use of stimulants may be warranted. REM behavior disorder is defined by the patient acting out dreams. The result could be either the patient or spouse moving to a different bedroom. This syndrome is treated with benzodiazepines and other medications. Assessing sleep would be expected to lead to improved morbidity and function.

**3.2 Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): [NeuroPI](http://www.aan.com/practice/pip/PQRS)  
<http://www.aan.com/practice/pip/PQRS>

**3b. Usefulness for Quality Improvement: H ☒ M ☒ L ☒ I ☐**

(The measure is meaningful, understandable and useful for quality improvement.)

**3b.1. Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page

URL(s):

**[For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].**

NeuroPI <http://www.aan.com/practice/pip/>

NeuroPI <http://www.aan.com/practice/pip/>

There are currently 109 individuals participating in the AAN's NeuroPI module on Parkinson's disease.

**3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement.** If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

Due to the amount of time it takes to complete a Performance in Practice module the AAN does not yet have data from those participating using the Parkinson's disease measures. The AAN anticipates having supporting data from the NeuroPI modules by January 2014, the end of the temporary endorsement period for this measure.

Due to the amount of time it takes to complete a Performance in Practice module the AAN does not yet have data regarding those participating using the Parkinson's disease measures.

**Overall, to what extent was the criterion, Usability, met? H M L I**

**Provide rationale based on specific subcriteria:**

#### 4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (**evaluation criteria**)

**4a. Data Generated as a Byproduct of Care Processes: H M L I**

**4a.1-2 How are the data elements needed to compute measure scores generated?** (Check all that apply).

Data used in the measure are:

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

**4b. Electronic Sources: H M L I**

**4b.1 Are the data elements needed for the measure as specified available electronically** (Elements that are needed to compute measure scores are in defined, computer-readable fields): **Some data elements are in electronic sources**

**4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:** **Currently, this measure has been specified for administrative claims. The AAN has contracted with two separate consultants to learn the process to develop eSpecifications, code value sets, logic, and develop eMeasures. The training was complete as of 9/25/12 and the measures will be fully specified for eMeasures by December 2012.**

**4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H M L I**

**4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:**

**Testing has not begun yet but will be completed by January 2014. Strategies to prevent, minimize or detect**

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable

Created on: 10/27/2015 at 06:43 AM

unintended consequences will be identified during testing in 2013. Operational use of this measure has not identified any inaccuracies, errors or unintended consequences of measurement.

**4d. Data Collection Strategy/Implementation: H ☐ M ☒ L ☐ I ☐**

**A.2 Please check if either of the following apply (regarding proprietary measures):**

**4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues (e.g., fees for use of proprietary measures):**

Testing has not begun yet but will be completed by January 2014. Operational use of this measure helped identify the need for a registry to simplify usage of measures (available via the CECity registry as of 8/2012). No other problems or issues have been identified.

**Overall, to what extent was the criterion, *Feasibility*, met? H ☐ M ☒ L ☐ I ☐**

**Provide rationale based on specific subcriteria:**

**OVERALL SUITABILITY FOR ENDORSEMENT**

**Does the measure meet all the NQF criteria for endorsement? Yes ☒ No ☐**

**Rationale:**

**If the Committee votes No, STOP.**

**If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.**

**5. COMPARISON TO RELATED AND COMPETING MEASURES**

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

**5.1 If there are related measures (either same measure focus or target population) or competing measures (both the same measure focus and same target population), list the NQF # and title of all related and/or competing measures:**

**5a. Harmonization**

**5a.1 If this measure has EITHER the same measure focus OR the same target population as [NQF-endorsed measure\(s\)](#): Are the measure specifications completely harmonized?**

**5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:**

**5b. Competing Measure(s)**

**5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s):**

**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible):**

## CONTACT INFORMATION

**Co.1 Measure Steward (Intellectual Property Owner):** American Academy of Neurology, 201 Chicago Avenue, Minneapolis, Minnesota, 55415

**Co.2 Point of Contact:** Amy, Bennett, abennett@aan.com, 612-928-6072-

**Co.3 Measure Developer if different from Measure Steward:** American Academy of Neurology, 201 Chicago Avenue, Minneapolis, Minnesota, 55415

**Co.4 Point of Contact:** Amy, Bennett, abennett@aan.com, 612-928-6072-

**Co.5 Submitter:** Amy, Bennett, abennett@aan.com, 612-928-6072-, American Academy of Neurology

**Co.6 Additional organizations that sponsored/participated in measure development:**

American Parkinson's Disease Association  
 National Parkinson Foundation  
 Parkinson's Disease Foundation  
 American Academy of Family Physicians  
 American Association of Neurosurgeons/Congress of Neurological Surgeons  
 American Neurological Association  
 American Psychological Association  
 American Psychiatric Association  
 Movement Disorder Society  
 National Academy of Neuropsychology  
 Aetna Inc.  
 Anthem Blue Cross and Blue Shield  
 Humana Inc.  
 UnitedHealth Group Inc.

**Co.7 Public Contact:** Rebecca, Swain-Eng, MS, rswaineng@aan.com, 612-928-6121-, American Academy of Neurology

## ADDITIONAL INFORMATION

**Workgroup/Expert Panel involved in measure development**

**Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**

William Weiner, MD (Co-Chair, American Academy of Neurology)  
 Stewart Factor, MD (Co-Chair, American Academy of Neurology)  
 Christopher Bever Jr., MD, MBA (Expert Panel Facilitator, American Academy of Neurology)  
 Eric Cheng, MD (Expert Panel Facilitator, American Academy of Neurology)  
 Michele Popadyne, RN (Panel Member, American Parkinson's Disease Foundation)  
 Joyce Oberdorf, MA (Panel Member, National Parkinson Foundation)  
 Jim Beck, PhD (Panel Member, Parkinson's Disease Foundation)  
 H. James Brownlee Jr., MD (Panel Member, American Academy of Family Physicians)  
 Lisa Shulman, MD (Panel Member, American Academy of Neurology)  
 Sotirios A. Parashos, MD, PhD (Panel Member, American Academy of Neurology)  
 Helen Bronte-Stewart, MD (Panel Member, American Academy of Neurology)  
 Janis Miyasaki, MD (Panel Member, American Academy of Neurology)  
 Marian Evatt, MD (Panel Member, American Academy of Neurology)  
 Karl Sillay, MD (Panel Member, American Association of Neurological Surgeons/Congress of Neurological Surgeons)  
 Blair Ford, MD (Panel Member, American Neurological Association)

<p>Paul Moberg, PhD, ABPP/CN (Panel Member, American Psychological Association)  Laura Marsh, MD (Panel Member, American Psychiatric Association)  Daniel Tarsy, MD (Panel Member, Movement Disorder Society)  Alexander Troster, PhD (Panel Member, National Academy of Neuropsychology)  Marc R. Nuwer, MD, PhD (Panel Member, American Academy of Neurology Coding Specialist)  Mustafa Saad Siddiqui, MD (Panel Member, American Academy of Neurology Coding Specialist)  Robert M. Kropp, MD, MBA (Panel Member, Aetna, Inc.)  Wesley B. Wong, MD, MMM (Panel Member, Anthem Blue Cross and Blue Sheild)  Monte Masten, MD (Panel Member, Humana, Inc.)  David Stumpf, MD (Panel Member, UnitedHealth Group, Inc.)  Rebecca Kresowik (Panel Member, Methodologist)  Rebecca Swain-Eng, MS (American Academy of Neurology Staff)  Sarah Tonn, MPH (American Academy of Neurology Staff)</p>
<p><b>Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:</b> N/A</p>
<p><b>Measure Developer/Steward Updates and Ongoing Maintenance</b>  <b>Ad.3 Year the measure was first released:</b> 2010  <b>Ad.4 Month and Year of most recent revision:</b> 11, 2010  <b>Ad.5 What is your frequency for review/update of this measure?</b> Every 3 years  <b>Ad.6 When is the next scheduled review/update for this measure?</b> 01, 2013</p>
<p><b>Ad.7 Copyright statement:</b> ©2009 American Academy of Neurology. All rights reserved. AAN BOD approved 12.21.09.</p>
<p><b>Ad.8 Disclaimers:</b> Physician Performance Measures (measures) and related data specifications developed by the American Academy of Neurology (AAN) are intended to facilitate quality improvement activities by physicians.</p> <p>These measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.</p> <p>Measures are subject to review and may be revised or rescinded at any time by the AAN. The measures may not be altered without prior written approval from the AAN. The measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes (e.g. use by health care providers in connection with their practices). Commercial use is defined as the sale, license, or distribution of the measures for commercial gain, or incorporation of the measures into a product or service that is sold, licensed, or distributed for commercial gain. Commercial uses of the measures require a license agreement between the user and the AAN. Neither the AAN nor its members shall be responsible for any use of the measures.</p>
<p><b>Ad.9 Additional Information/Comments:</b></p>
<p><b>Date of Submission (MM/DD/YY):</b> 07/13/2012</p>