NATIONAL
QUALITY FORUM

Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 1814
Corresponding Measures:
De.2. Measure Title: Counseling for Women of Childbearing Potential with Epilepsy
Co.1.1. Measure Steward: American Academy of Neurology
De.3. Brief Description of Measure: All female patients of childbearing potential (12–44 years old) diagnosed with epilepsy who were counseled or referred for counseling for how epilepsy and its treatment may affect contraception OR pregnancy at least once a year
1b.1. Developer Rationale: From original NQF submission -
Educate women about epilepsy and how its treatments may affect contraception and pregnancy. This will inform women of childbearing potential about the risks of epilepsy and AED therapy prior to pregnancy. It will provide an opportunity to educate this population about folic acid supplementation, monotherapy, medication alternatives and how to obtain obstetrical, prenatal and pregnancy care. This measure will help them understand the risk and mitigate the risks which may prevent fetal malformation, unplanned pregnancies and improve the patients´ quality of life.

S.4. Numerator Statement: Female patients or caregivers counseled* at least once a year about how epilepsy and its treatment may affect contraception OR pregnancy.

*Counseling should include a discussion about folic acid supplementation, contraception, potential anti-seizure medications effect(s) on pregnancy, safe pregnancies, and breastfeeding.
S.7. Denominator Statement: All females of childbearing potential (12-44 years old) with a diagnosis of epilepsy.
S.10. Denominator Exclusions: Excluded: patients diagnosed with menopause or surgically sterile.

Exceptions:
Patient has a diagnosis of neurodevelopmental disorder, encephalopathy, hydrocephalus, brain injury, or cerebral palsy.

Patient has a diagnosis of severe cognitive impairment or severe intellectual disability.

De.1. Measure Type: Process
S.23. Data Source: Other, Paper Records
S.26. Level of Analysis: Clinician : Group/Practice

IF Endorsement Maintenance – Original Endorsement Date: Mar 06, 2013 **Most Recent Endorsement Date:** Mar 06, 2013

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? Not applicable.

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and

improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form
WWE_MeasSubm_Evidence_2016-635883584442931941.docx

1b. Performance Gap
    Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:
- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure *(e.g., the benefits or improvements in quality envisioned by use of this measure)*
From original NQF submission -
Educate women about epilepsy and how its treatments may affect contraception and pregnancy. This will inform women of childbearing potential about the risks of epilepsy and AED therapy prior to pregnancy. It will provide an opportunity to educate this population about folic acid supplementation, monotherapy, medication alternatives and how to obtain obstetrical, prenatal and pregnancy care. This measure will help them understand the risk and mitigate the risks which may prevent fetal malformation, unplanned pregnancies and improve the patients´ quality of life.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included).*
This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.
See Full AAN Women with Epilepsy of Childbearing Potential Measure Testing results provided in appendix.

Since the most recent endorsement, the measure has been used in CMS´s Physician Quality Reporting System (PQRS), and most recent PQRS data made available for the 2013 reporting period provided percentage of eligible neurologists participating, but did not provide more detailed information on performance by reporting neurologists on the Counseling for Women of Childbearing Potential with Epilepsy measure.
NeuroPI data records completion of module, and does not store or reconcile information on performance of specific measures in the epilepsy module. To date 198 physicians have completed the module out of 615 participants who have enrolled in the module.

Data collection through the AAN´s Axon Registry was initiated in Q3 of 2015. Data validation is ongoing, and further analysis of performance is not available at this time.

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.
In 2013, the AAN tested its Women with Epilepsy of Childbearing potential measure and evidence of a gap in care remains. Data from the testing project showed that on average less than 40% of women received counseling about epilepsy and how its treatment may affect contraception and pregnancy.(5) Additionally, the QUality Indicators for Epilepsy Treatment in adults (QUIET) study demonstrated that only 34% of female patients receive counselling on aspects of epilepsy care specific to women (neurologist alone=32.88%; shared (neurologists and primary care=44.83%; and primary care alone=11.11%).(6)

For babies whose mothers take seizure medication, the risk of birth defects is 4% to 8% compared with 2% to 3% for all babies.(7) Despite the availability of practice guidelines, knowledge about the use of seizure medications during pregnancy was low with less than half of neurologists able to identify which medications were linked to adverse events during pregnancy.(8)

(5) MN Community Measure, Women with Epilepsy Draft Testing Report. December 18, 2013.
(6) Pugh MJ, Berlowitz DR, Rao JK, et al. The quality of care for adults with epilepsy: an initial glimpse using the QUIET measure. BMC Health Services Research 2011;11:1. Available at: http://www.biomedcentral.com/1472-6963/11/1 Accessed on February 25, 2014.
(7) Epilepsy Foundation. Pregnancy issues website. Available at: www.epilepsyfoundation.org/living/women/pregnancy/weipregnancy.cfm. Accessed on February 25, 2014.
(8) Roberts, JI, Metcalfe A, Abdulla F, et al. Neurologists' and neurology residents' knowledge of issues related to pregnancy for women with epilepsy. Epilepsy Behav. 2011;22(2):358-363.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*
See Full AAN Women with Epilepsy of Childbearing Potential Measure Testing results provided in appendix.

Since the most recent endorsement, the measure has been used in CMS´s Physician Quality Reporting System (PQRS), and most recent PQRS data made available for the 2013 reporting period provided percentage of eligible neurologists participating, but did not provide more detailed information on performance by reporting neurologists on the Counseling for Women of Childbearing Potential with Epilepsy measure.
NeuroPI data records completion of module, and does not store or reconcile information on performance of specific measures in the epilepsy module. To date 198 physicians have completed the module out of 615 participants who have enrolled in the module.

Data collection through the AAN´s Axon Registry was initiated in Q3 of 2015. Data validation is ongoing, and further analysis of performance is not available at this time.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.
From original NQF submission -
A study in the Harlem neighborhood of New York City found epilepsy prevalence to be higher in Hispanics than in non-Hispanics and a higher prevalence of active epilepsy in whites than in blacks, although the prevalence of lifetime epilepsy was higher in blacks compared to whites (Kelvin et al., 2007). In this community, there were racial and ethnic disparities in care; blacks were more likely to receive care in the emergency department compared to whites and Hispanics. Similarly, Hope and colleagues (2009) found that blacks and Hispanics were more likely than whites to be diagnosed in an emergency department, and blacks were more likely to receive a suboptimal seizure medication. Differences in care for prevalent epilepsy were also observed in residents of Alabama and surrounding states, where blacks were 60 percent less likely than non-Hispanic whites to undergo epilepsy surgery after receiving electroencephalograph (EEG) monitoring as part of a surgical evaluation, an association that persisted after controlling for factors such as SES and medical insurance coverage (Burneo et al.,2005). The degree to which differences in epilepsy incidence and prevalence in different racial and ethnic groups reflect differences in socioeconomic status is unknown. Also unknown is the degree to which the treatment gap contributes to the higher epilepsy prevalence in some subgroups.

Kelvin EA, Hesdorffer DC, Bagiella E, et al. Prevalence of self-reported epilepsy in a multiracial and multiethnic community in New York City. Epilepsy Research. 2007;77(2-3):141-150.
Hope OA, Zeber JE, Kressin NR, et al. New-onset geriatric epilepsy care: Race, setting of diagnosis, and choice of antiepileptic drug. Epilepsia 2009; 50(5): 1085-1093.
Burneo JG, Black L, Knowlton RC, et al. Racial disparities in the use of surgical treatment for intractable temporal lobe epilepsy. Neurology. 2005; 64(1):50-54.

1c. High Priority (previously referred to as High Impact)
The measure addresses:
- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare
Affects large numbers, A leading cause of morbidity/mortality, Patient/societal consequences of poor quality, Severity of illness
1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare. List citations in 1c.4.
From original NQF submission -
Recent estimates of the US population and prevalence of epilepsy indicate that approximately one-half million women with epilepsy

(WWE) are of childbearing age. It has also been estimated that 3-5 births per thousand will be to WWE. Epilepsy is defined by the presence of recurrent, unprovoked seizures, and the treatment is typically a daily, long-term antiepileptic drugs (AED) regiment. The majority of people with epilepsy have well-controlled seizures, are otherwise healthy, and therefore expect to participate fully in life experiences, including childbearing. Epilepsy is associated with sexual dysfunction, reduced fertility, increased pregnancy risks, and risks for malformations in the infant. Seizures can transiently disrupt pituitary hormone secretion. Treatment of seizures with antiepileptic drugs may alter hormone levels, render oral contraceptives less effective and may interfere with embryonic and fetal development. Certain antiepileptic mediations may have specific malformation risks. Since unplanned pregnancy is common, patients need to be informed about the risks of epilepsy and antiepileptic drug therapy prior to pregnancy. 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.

The specific knowledge needed by women with epilepsy, which may vary by age, has generally received insufficient attention. Because sex hormones can affect seizure frequency, girls and women need information related to hormonal fluctuations and seizure frequency. Studies have found higher-than-expected onset of seizures during the year of menarche; in girls with preexisting seizures, 29 percent experienced more frequent seizures during perimenarche (Klein et al., 2003). Because of hormonal fluctuation, some women have a cyclic pattern of seizure frequency associated with their menses that often is unrecognized (Pennell and Thompson, 2009).

"Our suspicions have been confirmed: epilepsy affects women differently. Their hormonal and menstrual cycles, pregnancy, menopause—all of those life stages are affected by epilepsy," said Edna Kane-Williams, vice president of programs and services for the Epilepsy Foundation. Furthermore, Ms. Kane-Williams said, many medical professionals seem to be in the dark. "We´ve done a professional awareness survey that showed that the physicians these women were seeing weren´t aware of the differences," she reported. When women with epilepsy have problems, they are often hormone-based, according to Dr. Mark Yerby, founder of North Pacific Epilepsy Research in Portland, Oregon, and a nationally recognized authority on the subject.

Risks from seizures and from anti-epileptic drugs
Both seizures and medications are associated with some risks. The risk of seizures is associated with seizure type. Partial seizures probably do not carry as much risk but they may become generalized seizures, and generalized tonic-clonic seizures are associated with increased risk to both the mother and baby. These risks include trauma from falls or burns, increased risk of premature labor, miscarriages, and fetal heart rate suppression. Seizure control is necessary because the risks from seizures are felt by epileptologists to be greater than the risks from medications, which may be minimized by utilizing specific strategies.

Strategies to minimize risks
Most importantly, women should get accurate information prior to and during pregnancy. If anti-epileptic drugs are not needed, multiple medications are being taken, or medications are given at high dosages, changes should be considered with a neurologist prior to a planned pregnancy. The lowest possible anti-epileptic drug dose that will continue to maintain seizure control is recommended. Being on a single drug, monotherapy, will decrease the risk of birth defects and result in fewer drug interactions, fewer side effects, and improve compliance.

The 2012 IOM report "Epilepsy Across the Spectrum" explicitly stated the need for the development and implementation of a national quality measurement and improvement strategy for epilepsy care. "An independent organization with expertise in quality measurement and care should assist in the development of the national strategy, particularly the development of performance metrics." Specifically, the IOM report calls for the national quality strategy to include defining performance metrics for epilepsy with specific attention to access to care for underserved populations, access to specialized care, co-management of care among specialized epilepsy providers, and coordination of care with other health care providers and community services organizations.

The AAN is a non-profit professional association with extensive experience and expertise in developing quality measures for neurological conditions and has developed eight quality measures for epilepsy care. The AAN has not yet completed testing of these measures. Three of the epilepsy measures were chosen for inclusion in the 2012 PQRS program and thus are under consideration for endorsement by the NQF at this time.

The incidence in females, at 41 cases per 100,000 person years, is less than that for males, at 49 cases per 100,000 person years.[2] Approximately 1 million women of childbearing age in the United States have seizure disorders. Of these women, approximately 20,000 give birth each year. Concerns during these pregnancies include the risk of fetal malformation, miscarriage, perinatal death, and increased seizure frequency.[1]

In women who are pregnant, the volume of distribution and the hepatic metabolism of AEDs are increased. This, along with decreased compliance with AEDs because of concerns about their effects on the fetus, leads to an increase in seizure frequency, which is observed in as many as 17-33% of pregnancies.

The use of antiepileptic drugs (AEDs) is associated with a greater baseline risk of fetal malformations during pregnancy. When treating pregnant women who have epilepsy, the risks of increased seizure frequency versus the risks of AED use must be weighed carefully.

A population-based study conducted in Norway found that pregnant women with epilepsy had a lower risk of complications but an increased risk of induction, cesarean delivery, and postpartum hemorrhage.[2] However, whether this is a result of AEDs or severe epilepsy is unclear.

1c.4. **Citations for data demonstrating high priority provided in 1a.3**

United States Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, Bridged-Race Population Estimates, United States. July 1st resident population by state, country, age, sex, bridged-race, and Hispanic origin on CDC WONDER on-line Database. Available at: http://wonder/cdc.gov/ Accessed June 2012.

Hirtz D, Thurman DJ, Gwinn-Hardy K, et al. How common are the "common" neurological disorders? Neurology 2007; 68:326-337.

Yerby MS. Quality of life, epilepsy advances, and the evolving role of anticonvulsants in women with epilepsy. Neurology 2000; 55:S21-31.

Harden CL, Hopp J, Tin 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; 73:126-132.

Practice parameter: management issues for women with epilepsy (summary statement). Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology. 51(4):944-8, 1998

Pennell PB. The importance of monotherapy in pregnancy. Neurology. 60(11 Suppl 4):S31-8, 2003

Yerby MS. Management issues for women with epilepsy: neural tube defects and folic acid supplementation. Neurology. 61(6 Suppl 2):S23-6, 2003

Crawford, P., and S. Hudson. 2003. Understanding the information needs of women with epilepsy at different lifestages: Results of the "Ideal World" survey. Seizure 12(7):502-507.

Pennell, P. B., and P. Thompson. 2009. Gender-specific psychosocial impact of living with epilepsy. Epilepsy and Behavior 15(Suppl. 1):S20-S25

Shafer, P. O. Counseling women with epilepsy. Epilepsia 1998; 39(Suppl. 8):S38-S44.

2009. Epilepsy self-management in clinical practice: What we do and know. Paper read at AES Annual Meeting, Boston, MA: Hynes Conference Center.

Cramer JA, Gordon J, Schachter S, Devinsky O, and the Epilepsy Therapy Development Project Women's Issues Work Group. Women with Epilepsy: Hormonal Issues from Menarche through Menopause. Epilepsy Behav. 2007; 11: 160-178

Epilepsy Therapy Project
http://www.epilepsy.com/INFO/WOMEN_PREGNANCY

Institute of Medicine Report "Epilepsy Across the Spectrum: Promoting Health and Understanding"
http:www.iom.edu/Reports/2012/Epilepsy-Across-the-Spectrum.aspx

1.   Katz O, Levy A, Wiznitzer A, Sheiner E. Pregnancy and perinatal outcome in epileptic women: a population-based study. J Matern Fetal Neonatal Med. Jan 2006;19(1):21-5.

2.   Borthen I, Eide MG, Daltveit AK, Gilhus NE. Delivery outcome of women with epilepsy: a population-based cohort study.

BJOG. Nov 2010;117(12):1537-43

1c.5. **If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful.** *(Describe how and from whom their input was obtained.)*
Not Applicable

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. ***Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.***

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. **Subject/Topic Area** *(check all the areas that apply):*
Neurology, Perinatal Health

De.6. **Non-Condition Specific** *(check all the areas that apply):*
Person-and Family-Centered Care, Primary Prevention, Safety, Safety : Medication

S.1. **Measure-specific Web Page** *(Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)*
https://www.aan.com/practice/quality-measures/

S.2a. <u>**If this is an eMeasure**</u>, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)
This is not an eMeasure **Attachment:** 1814_MeasSubm_MeasTesting_2016_01_27.docx

S.2b. **Data Dictionary, Code Table, or Value Sets** *(and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)*
Attachment **Attachment:** 2015-10-13_Epilepsy_Measure_6.xlsx

S.3. <u>**For endorsement maintenance**</u>, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.
Measure numerator and denominator exceptions were updated for added specificity in response to testing data.

The numerator statement previously stated, "Female patients counseled about epilepsy and how its treatment may affect contraception and pregnancy and documented in the medical record at least once a year." Numerator statement provides explicit requirements for counseling to be met in order to achieve performance.

Prior version of measure exclusion stated, "Documentation of medical reason for not counseling the patient about epilepsy and how its treatment
may affect contraception and pregnancy (e.g. patient is surgically sterile)." Specific medical reasons were detailed in this update.

S.4. **Numerator Statement** *(Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)*
<u>IF an OUTCOME MEASURE</u>, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.
Female patients or caregivers counseled* at least once a year about how epilepsy and its treatment may affect contraception OR pregnancy.

*Counseling should include a discussion about folic acid supplementation, contraception, potential anti-seizure medications effect(s) on pregnancy, safe pregnancies, and breastfeeding.

S.5. Time Period for Data *(What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)*
Within a 12 month reporting period

S.6. 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, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*
IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.
Measure is no longer applicable to claims reporting, and values (SNOMED) for gathering information through EHR and Registry sources is attached in S.2b.

S.7. Denominator Statement *(Brief, narrative description of the target population being measured)*
All females of childbearing potential (12-44 years old) with a diagnosis of epilepsy.

S.8. Target Population Category *(Check all the populations for which the measure is specified and tested if any):*
 Women

S.9. Denominator Details *(All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses , code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*
Measure is no longer applicable to claims reporting, and values (SNOMED) for gathering information through EHR and Registry sources is attached in S.2b.

Epilepsy ICD-9-CM diagnosis codes
345.00, 345.01, 345.10, 345.11, 345.40. 345.41, 345.50, 345.51, 345.60, 345.61, 345.70, 345.71, 345.90, 345.91

OR Epilepsy ICD-10-CM diagnosis codes
G40.A09, G40.A19, G40.309, G40.411, G40.209, G40.219, G40.109, G40.119, G40.822, G40.824, G40.909

S.10. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*
Excluded: patients diagnosed with menopause or surgically sterile.

Exceptions:
Patient has a diagnosis of neurodevelopmental disorder, encephalopathy, hydrocephalus, brain injury, or cerebral palsy.

Patient has a diagnosis of severe cognitive impairment or severe intellectual disability.

S.11. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*
Measure is no longer applicable to claims reporting, and values (SNOMED) for gathering information through EHR and Registry sources is attached in S.2b.

S.12. Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)*
Not Applicable

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)
No risk adjustment or risk stratification
If other:

S.14. **Identify the statistical risk model method and variables** *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)*
N/A

S.15. **Detailed risk model specifications** *(must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)*
Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. **Detailed risk model specifications** (*if not provided in excel or csv file at S.2b*)
N/A

S.16. **Type of score:**
Rate/proportion
If other:

S.17. **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)*
Better quality = Higher score

S.18. **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.)*
See Full AAN Women with Epilepsy of Childbearing Potential Measure Testing Report. MNCM completed validation of the data in a three-step process: 1) denominator certification, 2) data file quality checks, and 3) validation audit. Details of this validation are described in this report.

S.19. **Calculation Algorithm/Measure Logic Diagram URL or Attachment** *(You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)*
No diagram provided

S.20. **Sampling** *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*
IF a PRO-PM, identify whether (and how) proxy responses are allowed.
Not applicable.

S.21. **Survey/Patient-reported data** *(If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)*
IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.
Not Applicable

S.22. **Missing data** (specify how missing data are handled, e.g., imputation, delete case.)
Required for Composites and PRO-PMs.
For use in the American Academy of Neurology (AAN) Axon Registry only - If data is missing from denominator, the case is deleted. If data met for denominator then case information is included for the measure.

S.23. **Data Source** *(Check ONLY the sources for which the measure is SPECIFIED AND TESTED).*
If other, please describe in S.24.
Other, Paper Records

S.24. **Data Source or Collection Instrument** *(Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)*

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

NeuroPI Program: for maintenance of certification Performance in Practice module.
CECity PQRSWizard
Axon Registry
Physician Quality Reporting System measurement set

S.25. Data Source or Collection Instrument *(available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)*
No data collection instrument provided

S.26. Level of Analysis *(Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)*
Clinician : Group/Practice

S.27. Care Setting *(Check ONLY the settings for which the measure is SPECIFIED AND TESTED)*
Clinician Office/Clinic
If other:

S.28. COMPOSITE Performance Measure - Additional Specifications *(Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)*
Not Applicable

2a. Reliability – See attached Measure Testing Submission Form
2b. Validity – See attached Measure Testing Submission Form
1814_MeasSubm_MeasTesting_2016_01_27-635894858344728223.docx

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes
> For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.
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)
If other:

3b. Electronic Sources
> The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? *(i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)*
ALL data elements are in defined fields in a combination of electronic sources

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.
No feasibility assessment **Attachment:**

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.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.
IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.
Based on MNCM testing additional exclusion specification were included in this update. The AAN´s Axon Registry was initiated in 2015 Q3 and lessons are ongoing. Data is being successfully pulled from EHRs without need for manual extraction. This information will be used to strengthen the measure in the next scheduled update in Q4 2016.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified *(e.g., value/code set, risk model, programming code, algorithm).*
Not applicable

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency
Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current _and_ Planned Use
NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
	Payment Program
	PQRS
	https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/pqri/
	Professional Certification or Recognition Program
	NeuroPI
	http://tools.aan.com/practice/pip/
	Quality Improvement (Internal to the specific organization)
	Axon Registry
	https://www.aan.com/practice/axon-registry/

4a.1. For each CURRENT use, checked above, provide:
- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

NeuroPI Maintenance of Certification program by the AAN Available at: http://tools.aan.com/practice/pip/

The American Academy of Neurology Axon Registry. Currently an internal benchmarking quality registry with plans to expand to

external benchmarking. This tool enables neurology practices to identify and improve gaps in the quality of neurologic care. Axon Registry was launched in Q3 of 2015. The Women with Epilepsy measure will be incorporated into the registry in 2016. Currently there are 3 pilot cohorts in progress providing data to the registry. Axon Registry is currently being piloted and will be available to all AAN US members. Currently, there are 42 practices (487 neurology providers) in the 3 pilot cohorts.

CMS Physician Quality Reporting System (PQRS) 57.5% of eligible neurologists participated in PQRS reporting in 2013 (last known data). Data on this measure not known, as not reported in the PQRS and ERX Experience Report. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2013_PQRS_eRx_Experience_Report_zip.zip

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (*e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?*)
Not Applicable

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (*Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.*)
Not Applicable

4b. Improvement
Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)
Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:
- **Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)**
- **Geographic area and number and percentage of accountable entities and patients included**

See Full AAN Women with Epilepsy of Childbearing Potential Measure Testing results provided in appendix.

Since the most recent endorsement, the measure has been used in CMS´s Physician Quality Reporting System (PQRS), and most recent PQRS data made available for the 2013 reporting period provided percentage of eligible neurologists participating, but did not provide more detailed information on performance by reporting neurologists on the Counseling for Women of Childbearing Potential with Epilepsy measure.

NeuroPI data records completion of module, and does not store or reconcile information on performance of specific measures in the epilepsy module. To date 198 physicians have completed the module out of 615 participants who have enrolled in the module.

Data collection through the AAN´s Axon Registry was initiated in Q3 of 2015. Data validation is ongoing, and further analysis of performance is not available at this time.

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.
Unable to assess at this time.

4c. Unintended Consequences
The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative

unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.
No unintended negative consequences have been identified since implementation of updated specifications.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria <u>and</u> 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.

5. Relation to Other NQF-endorsed Measures
Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.
No

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization
   The measure specifications are harmonized with related measures;
   OR
   The differences in specifications are justified

5a.1. If this measure conceptually addresses 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.
Not Applicable

5b. Competing Measures
   The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);
   OR
   Multiple measures are justified.

5b.1. If this measure conceptually addresses 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.)
Not Applicable

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.
Attachment **Attachment:** Women_With_Epilepsy_Supporting_Materials.pdf

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Measure Developer/Steward Updates and Ongoing Maintenance
Ad.2 Year the measure was first released: 2009
Ad.3 Month and Year of most recent revision: 08, 2014
Ad.4 What is your frequency for review/update of this measure? Every 3 years
Ad.5 When is the next scheduled review/update for this measure? 11, 2016

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Ad.8 Additional Information/Comments: