MEASURE #6:
Counseling for Women of Childbearing Potential with Epilepsy

Measure Description

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.

Measure Components

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.
Denominator Statement	All females of childbearing potential (12-44 years old) with a diagnosis of epilepsy. Excluded: patients diagnosed with menopause or surgically sterile.
Denominator 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.
Supporting Guideline & Other References	**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:** • If a woman with epilepsy is of childbearing potential and receives oral contraceptives in conjunction with an enzyme inducing AED [Antiepileptic Drug], THEN decreased effectiveness of oral contraception should be addressed. (higher doses of the oral contraceptive, alternative birth control methods, or change AED). (Level A 2++/Primary)[1] • Patients with epilepsy should receive an annual review of information including topics such as: … Contraception, family planning, and how pregnancy and menopause may affect seizures (evidence grade C)[1] • Women with epilepsy (WWE) should be counseled that seizure freedom for at least 9 months prior to pregnancy is probably associated with a high rate (84%-92%) of remaining seizure-free during pregnancy.[2] • Women with epilepsy who smoke should be counseled that they possibly have a substantially increased risk of premature contractions and premature labor and delivery during pregnancy. There is possibly a substantially increased risk of premature contractions and premature labor and delivery during pregnancy for WWE who smoke. (Level C)[2] • Counseling of WWE who are contemplating pregnancy should reflect that there is probably no increased risk of reduced cognition in the offspring of WWE not taking AEDs (Level B).[3]

	• To reduce the risk of MCMs, avoidance of the use of VPA during the first trimester of pregnancy, if possible, may be considered, compared to the use of PHT or LTG. [MCMs=major congenital malformations; VPA=valproate; PHT=phenytoin; LTG=lamotrigine] (Level C)[3] • In order to enable informed decisions and choice, and to reduce misunderstandings, women and girls with epilepsy and their partners, as appropriate, must be given accurate information and counselling about contraception, conception, pregnancy, caring for children and breastfeeding, and menopause. (Level III)[4] • Information about contraception, conception, pregnancy, or menopause should be given to women and girls in advance of sexual activity, pregnancy or menopause, and the information should be tailored to their individual needs. This information should also be given, as needed, to people who are closely involved with women and girls with epilepsy. These may include her family and/or carers. (Level III)[4] • All healthcare professionals who treat, care for, or support women and girls with epilepsy should be familiar with relevant information and the availability of counselling. (Level III)[4] • Discuss with women and girls of childbearing potential (including young girls who are likely to need treatment into their childbearing years), and their parents and/or carers if appropriate, the risk of AEDs causing malformations and possible neurodevelopmental impairments in an unborn child. Assess the risks and benefits of treatment with individual drugs. There are limited data on risks to the unborn child associated with newer drugs. Specifically discuss the risk of continued use of sodium valproate to the unborn child, being aware that higher doses of sodium valproate (more than 800 mg/day) and polytherapy, particularly with sodium valproate, are associated with greater risk. (Evidence comes from three systematic reviews; one review focused on incidence of malformation and the other two on child neurodevelopmental outcomes. No individual RCTs were reviewed. This recommendation was also based on GDG consensus opinion.)[4] • In women of childbearing potential, the possibility of interaction with oral contraceptives should be discussed and an assessment made as to the risks and benefits of treatment with individual drugs. (Level III)[4] • In girls of childbearing potential, including young girls who are likely to need treatment into their childbearing years, the possibility of interaction with oral contraceptives should be discussed with the child and/or her carer, and an assessment made as to the risks and benefits of treatment with individual drugs. (Level III)[4] • In women and girls of childbearing potential, the risks and benefits of different contraceptive methods, including hormone-releasing intrauterine devices (IUDs), should be discussed. • (Level III)[4]

	• If a woman or girl taking enzyme-inducing AEDs chooses to take the combined oral contraceptive pill, guidance about dosage should be sought from the SPC and current edition of the BNF (available at http://bnf.org External Web Site Policy). (Level III)[4] • Women and girls with epilepsy need accurate information during pregnancy, and the possibility of status epilepticus and sudden death in epilepsy (SUDEP) should be discussed with all women and girls who plan to stop AED therapy (see the section 'Withdrawal of Pharmacologic Treatment' above).[4]
Rationale for the Measure	Epilepsy is associated with reduced fertility, increased pregnancy risks, and risks for malformations in the infant. Treatment of seizures with anti-seizure medications may alter hormone levels, render oral contraceptives less effective and may interfere with embryonic and fetal development. Certain anti-seizure medications may have specific malformation risks. Folic acid supplementation, monotherapy for epilepsy, using lower doses of medication when possible, and proper obstetrical, prenatal and pre-pregnancy care all should be discussed with the patient so they understand the risks involved and how to mitigate these risks.
Opportunity for Improvement	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]
References	[1] Pugh MJ, Berlowitz DR, Montouris G, et al. What constitutes high quality of care for adults with epilepsy? Neurology 2007;69:2020-2027 [2] Harden CL, Hopp J, Ting TY, et al. Practice Parameter update: Management issues for women with epilepsy-Focus on pregnancy (an evidence-based review): Obstetrical complications and change in seizure frequency: Report of the Quality Standards Subcommittee and Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology and American Epilepsy Society. Neurology 2009;73:126-132. [3] Harden CL, Meador KJ, Pennell PB, et al. Practice Parameter update: Management issues for women with epilepsy – Focus on pregnancy (an evidence-based review): Teratogenesis and perinatal outcomes: Report of the Quality Standards Subcommittee and Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology and American Epilepsy Society. Neurology 2009;73:133-141.

	[4] National Institute of Clinical Health and Excellence. The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care (update). 2012. Clinical guideline 137. Available at: http://www.nice.org.uk/nicemedia/live/13635/57779/57779.pdf Accessed on February 18, 2014. [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.

Measure Designation	
Measure purpose	☒ Quality improvement ☒ Accountability ☒ MOC
Type of measure	☒Process ☐ Outcome ☐ Structure
Level of Measurement	☒ Individual Provider ☒ Practice
National Quality Strategy Domains	☒ Patient and Family Engagement ☒ Patient Safety ☒Care Coordination ☐ Population/Public Health ☐ Efficient Use of Healthcare Resources ☐ Clinical Process/Effectiveness
Care setting	☒ Outpatient ☐ Inpatient ☐ Emergency Departments and Urgent Care
Data Sources	☒ Electronic health record (EHR) data ☒Administrative Data/Claims

Technical Specifications: Electronic Health Record (EHR) Data

The AAN is in the process of creating code value sets and the logic required for electronic capture of the quality measures with EHRs. A listing of the quality data model elements, code value sets, and measure

logic (through the CMS Measure Authoring Tool) for each of the epilepsy measures will be made available at a later date.

Technical Specifications: Electronic Administrative Data (Claims)

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

Denominator (Eligible Population)

ICD-9 and ICD-10 Diagnosis Codes:

ICD-9 Codes	ICD-10 Codes
345.00, generalized nonconvulsive epilepsy, without mention of intractable epilepsy	G40.A09 absence epileptic syndrome, not intractable, without status epilepticus
345.01, generalized nonconvulsive epilepsy, with intractable epilepsy	G40.A19 absence epileptic syndrome, intractable, without status epilepticus
345.10, generalized convulsive epilepsy, without mention of intractable epilepsy	G40.309 Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus OR G40.409 Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus
345.11, generalized convulsive epilepsy, with intractable epilepsy	G40.411 Other generalized
345.40, Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy	G40.209 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus
345.41, Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy	G40.219 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
345.50, Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy	G40.109 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
345.51, Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple	G40.119 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus

partial seizures, with intractable epilepsy	
345.60, Infantile spasms, without mention of intractable epilepsy	G40.822 Epileptic spasms, not intractable, without status epilepticus
345.61, Infantile spasms, with intractable epilepsy	G40.824 Epileptic spasms, intractable, without status epilepticus
345.70, Epilepsia partialis continua, without mention of intractable epilepsy	G40.109 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus
345.71, Epilepsia partialis continua, with intractable epilepsy	G40.119 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus
345.90, Epilepsy, unspecified, without mention of intractable epilepsy	G40.909 Epilepsy, unspecified, not intractable, without status epilepticus

AND
CPT E/M Service Code:
99201, 99202, 99203, 99204, 99205 (Office or other outpatient visit-New Patient);
99211, 99212, 99213, 99214, 99215 (Office or other outpatient visit-Established Patient);
99241, 99242, 99243, 99244, 99245 (Office or Other Outpatient Consultation-New or Established Patient)

AND
Female gender

AND
Age ages 12 to 44 years old