

Five Things Physicians and Patients Should Question

1

Avoid routine testing for antiseizure medication (formerly anti-epileptic drug/AED) levels in adults and children with epilepsy.

Antiseizure medication (ASM) (formerly anti-epileptic drug/AED) level testing should not be routinely ordered when seizures are well controlled, and no adverse effect is suspected. The reference ranges should not be used as a rigid framework. The effectiveness and tolerability of treatments should be determined by the clinical responses. ASM levels should be ordered to address a specific question. Some examples include weight-based dosing adjustments in young children, adherence, suspected toxicity, and pregnant persons.

2

Do not treat people of childbearing potential with valproate if other effective treatments are available.

The risks to an unborn child from valproate (VPA) are significant enough to warrant avoiding this medication if at all possible. If VPA is deemed necessary, aim for lowest effective dose. People of childbearing potential on VPA should receive risk counseling prior to conception including possibility of major congenital malformations (birth defects) in a fetus from first trimester exposure, and long-term cognitive and behavioral effects (lower IQ and increased risk of autism spectrum disorder and ADHD) from exposure throughout pregnancy.

3

Do not routinely order electroencephalogram (EEG) as part of initial syncope work-up.

EEG will be negative in a large portion of adults and children with epilepsy and may be positive in patients without epilepsy. False positive EEG findings commonly lead to unnecessary use of antiseizure medication (ASM) (formerly anti-epileptic drugs/AED) and may delay the syncope diagnosis and treatment. EEGs are most helpful in specific situations when there is high pre-test probability for epilepsy based on history and exam, and clinical presentation.

4

Do not prescribe long-term treatment with antiseizure medication (formerly anti-epileptic drugs/AED) after withdrawal seizures.

Alcohol and other withdrawal seizures occur due to abrupt cessation in a person who is substance-dependent, and can usually be readily identified by the clinical scenario. These withdrawal seizures may be treated with antiseizure medications (ASMs) (formerly anti-epileptic drugs/AED) acutely. Once the acute detoxification is complete, ASMs are not indicated. It is, however, important to identify scenarios where there is increased risk of epilepsy, such as prior epilepsy diagnosis, acute intoxication related brain injury, and seizures with history of alcohol use but without acute withdrawal.

5

Do not routinely perform brain imaging after acute seizure in adults and children with established epilepsy.

Unnecessary brain imaging increases radiation exposure and medical cost without benefit, yet is often done after habitual seizures when the patient is at baseline. Brain imaging should be considered in certain clinical situations, such as when there is seizure-related trauma, post-ictal deficits on exam, or new focal seizure semiology.

How This List Was Created

The 2023 update of the American Epilepsy Society (AES) *Choosing Wisely* list was initiated with review of the statements, rationales, and sources by an AES Practice Management Committee (PMC) work group. That work group updated verbiage to most current terminology and made Sources updates that were reviewed with input and approval by the full PMC, the AES Council on Clinical Activities (CCA), and the AES Board of Directors. The initial five statements published in August 2018 were prepared in accordance with the ABIM Foundation's *Operating Principles for Clinician Organizations' Participation in the Choosing Wisely Campaign*. A PMC subgroup drafted seven potential Choosing Wisely statements and voted to prioritize five for inclusion based on (1) clinical relevance, (2) clinical validity, and (3) clarity of concept. After edits per the Foundation's specifications, items were re-evaluated to ensure consistency of messaging, advanced for approval by the AES CCA and Board of Directors, then submitted to the Foundation for consideration of inclusion in the *Choosing Wisely* Campaign. The PMC will review the statements on an annual basis to ensure adherence to the Foundation's Operating Principles and that the statements continue to be supported by generally accepted evidence and are applicable to current clinical practice.

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About the American Epilepsy Society

The American Epilepsy Society mission centers on sharing knowledge, fostering continuous learning, discovering and applying innovations, acting through partnerships, and supporting current and future generations of those focused on achieving our vision of eradicating epilepsy and its consequences. Education, research, clinical excellence, public education, and awareness—these initiatives all align in the service of this vision.



For more information or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwisely.org.