

Suicide & Epilepsy Information Sheet

Created by the American Epilepsy Society Psychosocial Comorbidities Committee 2024

Prevalence

Suicide is a leading cause of death in the United States¹. In 2021, 48,123 people died by suicide in the United States (1 death every 11 minutes), and over 12 million adults endorsed suicidal ideation. Globally, according to the World Health Organization², more than 700,000 people died by suicide in 2019. Adults with epilepsy are at higher risk for suicidal ideation, suicidal attempts, and completed suicide than the general population³, and 1 in 4 patients with epilepsy reported suicidal ideation in their lifetime⁴. Suicide accounts for 11.5% of deaths in epilepsy (approximately 2 to 4.5 times higher than in the general population)³. Health care providers, including those who care for adults with epilepsy, are uniquely suited to identify individuals at risk for suicide and refer these adults to appropriate mental health treatment. Screening for suicidality, along with other mental health conditions, during clinic visits can help people with epilepsy (PWE) gain access to needed mental and behavioral health treatment, and hopefully, decrease suicide⁵.

Risk Factors for Suicide

Suicide is related to depression but a separate concept. Mood disorders contribute to 60% of all suicides⁶. However, the majority of patients with psychiatric disorders do not attempt suicide, and about 10-37% of patients who die by suicide do not have an identified mental health condition^{7,8}. In addition to psychiatric disorders, psychosocial problems (e.g. job loss, breakup of marriages /relationships or inability to develop close relationships) further intensify the risk of suicide⁹. Other risk factors include potential neurobiological mechanisms (CNS serotonergic and HPA axis dysregulation⁸), genetic risks¹⁰, and medical diagnoses, including neurological conditions (e.g., epilepsy, Huntington's disease, head injury and strokes⁹).

Epilepsy-Specific Risk Factors for Suicide

For patients with epilepsy, suicide risk increases with drug resistance³, frequent seizures (>1/month), and shortly after initial diagnosis¹¹. Seizure type (focal seizures with temporal lobe origin) and location (lesions of the temporal lobe)³ can also increase risk. Recent epilepsy-related hospitalization increases risk of suicidality in the following year¹².

Unique issue of ASM: Despite the US Food and Drug Administration (FDA) requiring antiseizure medications (ASM) to list a class label warning for increased suicidality, the role of ASM in suicidality remains unclear. This warning resulted from a meta-analysis showing that has had considerable debate regarding the methodology used¹³. Longitudinal studies support that peak suicidality occurs shortly before ASM is prescribed rather than after^{14,15}, and a recent meta-analysis of newer ASMs¹⁶ reported no evidence of increased risk of suicidality for any individual drug studied. Current literature does not support that there is a causal relationship between ASMs and suicidality.

Special Considerations for Pediatrics

Youth with epilepsy (YWE) experience higher rates of depressive symptoms than other children¹⁷, ranging from 8 to 41%, with up to 14% of YWE experiencing suicidal ideation¹⁸⁻²⁰. For youth in general, suicidal ideation, attempts, and completions typically increase during early adolescence²¹. Completed suicide is more prevalent in male adolescents, although females may experience higher levels of suicidal ideation and nonfatal attempts²². In the past, many providers and parents believed young children did not understand the finality of death at a level to consider suicide. However, children as young as 5 can and do experience suicidal ideation and although rare, occurrences of completed suicide exist in elementary aged children^{23,24}. When compared to older children, particular risk factors for suicide in young children include ADHD or depression, history of bullying, family history of depression, and family problems^{24,25, 26}.

Developing a Suicide Screening Policy for Your Clinic

A Suicide Screening Policy should outline 1) what *screening tool* will be utilized, 2) *who* will be screened, 3) *frequency* of screening, and 4) *plan for a positive screen* (when suicidal thoughts or behaviors are identified). When there is active risk for harm (a patient is unable keep themselves safe), they should be recommended for higher level care (e.g., inpatient hospitalization or partial hospitalization programs). When there is no acute risk, risk mitigation should be used. The policy can also outline who is responsible for the screening and response. For example, standard workflow may identify a clinic care assistant or registered nurse will complete the screen and notify the provider of screening results. The plan should also outline steps for hospitalization or transfer to ED for those who are at active risk for harm, including implementation of immediate safety measures (e.g., 1:1 staffing while in the clinic). See resource "Policy Development" for example workflow.

Evidence-Based Assessment

Talking about suicide or asking someone if they feel suicidal does not increase the chance a person will act on it. It is always important to take seriously anybody who talks about feeling suicidal. There are many available tools for screening. Two readily available options are the Ask Suicide Questions ([ASQ](#): 4 brief questions, 20 seconds, 23 languages) and the Columbia Suicide Severity Rating Scale (C-SSRS 6 questions, ~5 min, 150 languages). The [ASQ toolkit](#) includes the questionnaire, information sheets, resource lists, and training videos, and is organized by the medical setting in which it will be used (emergency department, inpatient medical/surgical unit, outpatient primary care and specialty units). The ASQ has both Youth (8-24 years old) and Adult (18+) versions. The ASQ has high sensitivity, is validated for ruling out risk²⁷, and is feasible to administer across a variety of settings^{28,29}. The [C-SSRS](#), also known as the Columbia Protocol, is another suicide risk screening tool designed to be used across settings and evaluators. The six questions identify risk, determine the severity of the risk, and gauge the level of support needed. Information, training and the C-SSRS Toolkit are all available at [The Columbia Lighthouse Project website](#). The standard version of the C-SSRS is used for children and adults, but there is a version for very young children (4-5y). Extensive evidence supporting its sensitivity and specificity, positive and negative predictive value, reliability and cross-cultural validation can be found on the website.

Evidence-Based Intervention

Patients with positive screens should be further assessed for risk and appropriate interventions. [SAFE-T assessment](#) is one tool that can be useful to further determine next steps. SAFE-T includes identifying risk factors, protective factors, conducting a suicide inquiry, determining risk level/intervention, and documenting the assessment, rationale, and recommendations. Those with active ideation, potentially lethal attempt, and suicide rehearsal should be referred for psychiatric inpatient admission and either partial or inpatient admission should be considered for those positive for ideation and plan, but without intent. Regardless of decision to admit, patients should receive safety planning. The [Safety Planning Intervention \(SPI\)](#) is a brief, evidence-based intervention³⁰, that reduces risk of self-harm by identifying and adaptive coping strategies³¹.

Safety Plan Intervention³¹

- Identifying triggers or warning signs
- Identify internal self-coping techniques
- Strategies for distraction & support
- Personal contacts who can be supportive during a crisis
- Professional agencies that can be utilized during a crisis (e.g., calling 988 or national hotlines)
- Lethal means restriction (reduce access, recommend locks, consider medication supply)

Special Developmental Considerations:

- Triggers/warning signs, coping strategies, and need for external support can vary by age (e.g., child versus teen) or environment (e.g., school versus home).
- Consider use of developmentally appropriate language, resources available for support across environments, and development and communication of the safety plan with caregivers.
- Specific lethal means (strangulation, poison) are more common in youth, and close supervision of younger children is paramount³²

Suicide Resources

- [Policy](#) and [Standard Work](#)
 - [5 Action Steps from NIMH](#)
 - [Suicide Prevention Resource Center](#)
 - [Means restriction counseling](#)
 - [988 Lifeline](#) (“911 for mental health”)
 - [The Trevor Project](#)
 - [Youth Suicide Warning Signs](#)
 - [Safety Planning Training Videos](#)
- Examples
- [Ask Suicide Questions Tool](#)
 - [CCSRs Screening Tool](#)
 - [SAFE-T Card from SAMHSA](#)

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