

Screening and Assessing Suicide Risk in Medical Settings: Feasible Strategies for Early Detection

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Early detection of risk is a key suicide prevention strategy. Given that most individuals who die by suicide visit a health care provider in the year leading up to their death, medical settings are ideal venues for identifying those at elevated risk and bridging them to life-saving care. Clinicians are presented with an opportunity to engage in proactive suicide prevention efforts through practical and adaptable suicide risk screening, assessment, and management processes. Psychiatrists and mental health clinicians are well positioned to assist nonpsychiatric clinicians on the frontlines of this public

health problem. This article discusses the importance of identifying people at elevated suicide risk through screening, differentiates screening from assessment procedures, and presents practical strategies for implementing evidence-based screening and assessment tools into practice as part of a three-tiered clinical pathway. Specifically, this article discusses key components that guide embedding suicide prevention strategies into the workflows of busy medical settings.

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An important part of suicide prevention is early detection of risk. Death registry studies indicate that 82% of adults and youths who died by suicide had visited a health care provider months, sometimes weeks, before their death (1). This positions health care visits as a means for identifying patients “at risk” and bridging them to mental health care. However, people are less likely to speak about their suicidal thoughts if they are not asked directly. Utilizing suicide risk screening tools in medical settings gives clinicians evidence-based questions to ask and gives patients the opportunity to disclose suicidal thoughts and behaviors. Screening is a public health strategy that can potentially save lives (2) and has been supported by the American Foundation for Suicide Prevention (AFSP), the National Action Alliance for Suicide Prevention, the American Academy of Pediatrics (AAP), and The Joint Commission (TJC) (3–5). Nevertheless, many individuals who attempt suicide pass through health care systems undetected because, in part, most medical settings do not use systematic or universal screening. The purpose of this article is to inform and update psychiatrists on best practices for suicide risk screening in medical settings.

BENEFITS OF SCREENING

Screening in medical settings is meant to identify a subgroup of patients who need a more fine-grained assessment to establish

the presence and/or severity of suicide risk. Screening can be universal or targeted. Targeted screening occurs when providers focus on screening only high-risk groups, such as behavioral health patients. In 2019, TJC revised its National Patient Safety Goal 15 (NPSG 15) to promote safety for behavioral health patients using targeted suicide risk screening strategies with evidence-based tools (4).

Universal screening involves screening all patients regardless of presenting issues. Such a strategy can save lives when paired with brief assessment and safety planning interventions. In one landmark study, ED-SAFE, patients who received screening and follow-up safety phone calls demonstrated a 30% reduction in suicide attempts over a year, compared with those who received standard treatment (2). In addition to preventing morbidity and mortality, screening can proactively address mental illness, as suicidal thoughts that may indicate underlying mental illness can be treated when detected.

To address the suicide crisis, clinicians require evidence-based tools and clinical pathways to successfully implement suicide prevention practices. They also require partnerships with psychiatrists for managing patients who screen positive and administering important treatments, including psychotropic medication. In this article, we discuss suicide risk screening, risk assessment, and how clinical pathways can be feasibly implemented without overburdening busy health care practices.

OVERCOMING BARRIERS TO SCREENING

Before implementing suicide prevention procedures, there are several potential barriers to address. Most notably, there is a common concern among patients, parents and caregivers, and providers that asking individuals about suicide could “put the idea in their head,” and be harmful instead of helpful. Multiple studies evaluated this iatrogenic risk and refuted this myth (6–9). These studies demonstrate that asking people directly about suicide rarely contributes to increased distress and does not cause someone to consider suicide.

Additionally, many providers are concerned that screening for suicide risk requires inordinate amounts of time and emergency care for patients, particularly in settings with limited mental health resources. It is critical that providers respond to positive screens in a manner that prioritizes risk reduction and patient safety. However, if every patient who screens positive were treated like an emergency, the screening program would be untenable. On the basis of implementation studies with both youth and adult medical patients (10, 11), the vast majority of patients who screen positive do not require emergency evaluation after screening positive. These patients need providers to respond by staying calm, actively listening, and helping them access mental health care. For those who cannot access mental health treatment, and even for those who can, there are several brief evidence-based interventions, such as safety planning and lethal means safety counseling, that clinicians can conduct in their office to reduce immediate risk (12, 13). Additionally, providers can connect patients with community mental health supports; mobile crisis teams; telehealth services; or, for youths, school-based behavioral health services. Providers also worry about negative patient reactions to screening. However, studies show that screening in medical settings has established broad support among adults, youths, and caregivers (14–19).

In the 2019 AAP periodic survey, almost 80% of pediatricians had a patient (or patients) disclose suicidal ideation in the past 12 months (20). Paired with this concerning statistic was a strong interest (61%) in receiving additional suicide prevention training. In response to the growing crisis of youth suicide, the AAP's Bright Futures periodic survey now recommends universally screening for suicide risk starting at age 12 as part of its periodicity schedule (21). The AAP and AFSP recently published the Blueprint for Youth Suicide Prevention as a roadmap for embedding suicide prevention into clinical practice (3).

CAN UNIVERSAL SCREENING HELP BRIDGE HEALTH EQUITY?

Many populations are at elevated risk for suicide, including Black, Indigenous, Asian-Pacific Islander, Hispanic, mixed-race, LGBTQ+ (lesbian, gay, bisexual, transgender, queer or questioning, plus others), incarcerated, and neurodiverse individuals, as well as those living in rural areas or in the child

welfare system (22–27). As these populations face growing health disparities, screening and assessment practices should be adapted to meet unique cultural needs. Universal screening is one strategy for addressing cultural differences. Specifically, the Congressional Black Caucus, in their Ring the Alarm report, found that Black youths are more likely to view psychiatric symptoms as somatic experiences, reducing their likelihood of seeking mental health treatment. Screening is one method for initiating these conversations (28). In addition, Black youths are more likely to express their depression symptoms through externalizing behaviors, potentially resulting in misclassification and greater odds of receiving inpatient disposition (29–31). Sometimes, schools respond with harsher disciplinary actions to Black youths, which has also been associated with later disproportionate rates of incarceration, contributing to the “school-to-prison pipeline” (28).

As the development of new screening and assessment strategies continue, it is important to evaluate efficacy among understudied populations. For example, the Ask Suicide-Screening Questions (ASQ) tool demonstrated comparable psychometric properties across Black and White youths (32). Cultural responsiveness is also key in adapting, developing, and implementing tools. The ASQ is being studied with the removal of the words “death” and “dead,” because in an emergency department (ED) that serves mainly Navajo tribe patients, using these words is culturally insensitive; it is important that these adaptations are validated through research. However, given the escalating crisis of suicide, utilizing currently available tools is warranted and often effective. In a clinic serving youths with neurodevelopmental disorders, screening was feasibly implemented without overburdening practice workflows (33), demonstrating that individuals with neurodevelopmental disorders could be screened for suicide risk (34).

SCREENING VERSUS ASSESSMENT

Although often conflated, screening and assessment are two different processes. Screening rapidly identifies a potentially at-risk individual who needs further assessment. Assessment more comprehensively evaluates and formulates risk and guides next steps. Like other medical screening processes, such as blood pressure measurement, medical teams conduct additional assessments between screening and intervention. The same is true for suicide risk screening: A positive screen needs to be further evaluated before deciding on treatment.

SUICIDE RISK SCREENING PATHWAYS

Pathways are “how-to” guides that clinicians can utilize to navigate the steps of screening, assessment, and disposition while avoiding overburdening their patients or disrupting their practice workflow. Pathways for screening both youths (35, 36) and adults (37) are available and are intended to be flexible and adaptable to accommodate the diversity of resources and culture across medical settings. There are

screening tools that are commonly utilized in medical settings, such as the ASQ (38), the Patient Safety Screener-3 (PSS-3) (39), and the Columbia–Suicide Severity Rating Scale, Screening Version (C-SSRS) (40), and constitute the first step in a clinical pathway. In response to the COVID-19 pandemic's exacerbation of the mental health crisis and the resulting increase in usage of telehealth services, pathways have been adapted for telehealth (41).

Clinical pathways for managing suicide risk can be simplified to three steps: Tier 1: a brief screening for suicide risk; Tier 2: a brief suicide safety assessment (BSSA) for patients who screen positive; and Tier 3: disposition or determining a course of action for patients who screen positive. These steps can be implemented through an iterative quality improvement process to pilot suicide prevention initiatives, track progress, and address common implementation barriers as they arise (36).

TIER 1: BRIEF SCREENING FOR SUICIDE RISK

Suicide risk screening rapidly detects someone who requires further assessment. Effective screening tools are evidence based, brief, easy to use, and tested through research. In 2020, Thom and colleagues (42) evaluated several commonly utilized suicide risk screening tools, including the ASQ and PSS-3, both of which were specifically developed and validated for use among medical patients. The ASQ was validated in various medical settings, including the pediatric ED, inpatient or medical-surgical unit, and outpatient primary care and specialty clinics, as well as in the inpatient or medical-surgical unit for adults. The PSS-3 has been validated in the adult ED. Both tools demonstrated strong psychometric properties in their validation studies; the ASQ had a sensitivity of 0.97 and a specificity of 0.87 with the Suicidal Ideation Questionnaire, whereas the PSS-3 had a robust agreement with the Beck Scale for Suicidal Ideation ($\kappa=0.94$) (42). TJC also provides a list of evidence-based tools for suicide risk screening, which includes the Patient Health Questionnaire-9 (PHQ-9; a depression screener) and the C-SSRS (4). Other tools, such as the Computerized Adaptive Screen for Suicidal Youth (CASSY; <https://adaptivetestingtechnologies.com/the-cassy/>), developed for the ED, use novel technologies to individualize question administration to meet a patient's response pattern (43). Although there are no available tools to detect who will die by suicide, several tools have demonstrated promising predictive validity for future suicide attempts. For example, both the ASQ and CASSY have demonstrated moderate ability to predict future suicide attempts postdischarge from the ED (43–46).

Is Depression Screening Sufficient to Identify People at Risk for Suicide?

Some settings routinely screen for depression and use this as a proxy for suicide risk screening or use those results to determine who receives suicide risk screening. Although depression is a risk factor for suicide, depression screening alone

is not an adequate substitute for suicide risk screening (47–54). These studies have demonstrated that 30%–50% of patients with suicide risk are not detected with depression screening alone. More specifically, the ninth item of the PHQ-9 asks whether the patient, in the past 2 weeks, has had thoughts of being better off dead or *hurting* themselves. There are two problems with this item: First, it has an “or” in it, so it is unclear which part of the sentence the patient is endorsing; second, the use of “hurting” instead of “killing” is not specific to suicidal thoughts, and patients may think of hurting oneself and killing oneself as two separate things. Although the ninth item addresses suicidal ideation in some respects, studies in both youths and adults have demonstrated that relying solely on this question may cause professionals to miss a significant proportion of individuals at risk for suicide (49, 55–57).

National medical organizations have emphasized the importance of using suicide-specific screens. For example, the American Medical Association has advised against using the ninth item of the PHQ alone to detect suicide risk (58). Additionally, the AAP now recommends screening for both depression and suicide risk for youths ages 12 and over as part of its Bright Futures periodicity schedule (21). Although using depression screening as a proxy for suicide risk screening is better than not screening at all, such a practice has clear limitations. Pairing depression screening with an evidence-based suicide risk screening tool is feasible, adding only an additional 30 seconds to the process while identifying significantly more individuals with elevated risk for engaging in suicidal behavior (41).

Selecting Patients to Screen

A decision should be made regarding whether to use universal or targeted suicide risk screening. Given that the screening can take 30 seconds and that it is not always obvious who is at highest risk, universal screening can be an important public health strategy. For patients ages 10 and over, universal screening has been shown to be feasible in medical settings (10, 11, 36, 59–63). There is limited evidence describing an ideal frequency for repeated screening. Recommendations for both youths and adults suggest screening no more than once a month and at least once per year, which is often integrated into well visits (21, 37, 41). Screening can occur more regularly if the patient demonstrates clinically significant psychiatric symptoms. Once suicide risk has been identified in a patient, rather than rescreen, follow-up can be actively incorporated into ongoing risk assessment and management at subsequent visits.

Early detection is particularly important for pediatric patients (3, 5, 21, 58). When considering age, the AAP recommends that screenings start at 12 years old; the ASQ has been validated for younger children, and the ASQ Toolkit (<https://nimh.nih.gov/ASQ>) recommends that screenings begin at age 10 for those presenting with medical chief complaints and age 8 for those presenting with psychiatric chief complaints (41). Children under the age of 8, although very rarely, can present with suicidal ideation and behavior.

However, there are no suicide risk screening tools validated for this age group. For these very young patients, providers can be trained to identify warning signs and then assess (instead of screen) when suicide risk is present (e.g., the child talks about wanting to die or displays suicide risk behaviors, or the parent reports concerns).

How to Screen

If possible, patients may feel more comfortable and be more honest if they are screened in private. To avoid stigmatization, health care practices may find it beneficial to incorporate suicide risk screening into other routine screens, such as measuring vital signs and other mental health questionnaires (e.g., anxiety, depression, domestic violence). Examples of scripts for introducing the suicide risk screen to patients, parents or guardians, or visitors of patients being screened are available on the Zero Suicide website (<https://zerosuicide.edc.org/toolkit>) and the ASQ Toolkit website (41, 64).

Suicide risk screens can be administered verbally or gathered through self-report paper-and-pencil forms or computerized instruments. Because the questions are often empirically derived, it is crucial that the screening tool is administered as intended so as not to over- or underdetect suicide risk.

Any health care staff member (e.g., medical assistant, nurse) can be trained to screen for suicide risk with each specific screening tool. Although positivity rates will vary, depending on the setting and patient population, approximately 90%–98% of patients will screen negative (10, 11). Some screening tools also include items to assess acuity among positive screens. For example, the ASQ has four items, with a fifth acuity question for any patient who screens positive (“Are you having thoughts of killing yourself right now?”). Patients who screen positive are either “acute” or “nonacute,” depending on the answer to this fifth question. This distinction is important because it determines the next steps for the patient and makes screening manageable, even with limited resources. The C-SSRS triages patients into high, moderate, and mild risk on the basis of their responses to critical questions (65).

Managing Positive Screens

There are no screening tools that predict who will die by suicide. Once risk has been identified, it is important for clinicians to evaluate safety concerns further through a BSSA process. This will further triage the screening tool and help clinicians assess risk as low, moderate, or high (discussed later in the “Tier 2: Brief Suicide Safety Assessment” section).

A Note on Managing Patients With Past Attempts

If the screening tool asks about lifetime history of suicide attempt, patients with any history of suicidal behavior will always screen positive, even on subsequent screenings, regardless of the recency of their attempt and whether they have current suicidal ideation. Research shows that one-

third of both youths and adults who screened positive on the ASQ had answered “yes” to only the past suicide attempt question (66). For these patients, repeated risk assessments during every visit may feel punitive, especially if suicidal behavior is not a current, active concern. To prioritize both patient care and workflow efficiency, clinical pathways account for this type of isolated, distant past behavior. Specifically, the PSS-3 stratifies the recency of the behavior, allowing practices to set a time frame of the recency that is classified as mild risk (39). The ASQ outpatient suicide risk clinical pathway recommends modifying the fourth question to “Since last visit, have you tried to kill yourself?” for patients with a documented prior suicide attempt (36). If the patient does not report any recent or current suicidal ideation, the clinician may administer an expedited risk assessment process and proceed to a mild risk disposition. However, this is different for adults and youths. For adults, the attempt may have occurred decades in the past, and the adults may have developed effective coping strategies since then. Because youths have varying developmental trajectories and fewer life years and experiences, any past attempt for a youth is of significant psychiatric concern.

TIER 2: BRIEF SUICIDE SAFETY ASSESSMENT (BSSA)

This intermediate step, conducted on patients who screen positive, is the most critical of the pathway and can be the difference between a feasible and an untenable suicide risk screening program. This clinician-administered brief assessment is more extensive, confirming positive risk, estimating imminent risk of danger to the patient, and guiding the next steps of disposition. This step should not be a full psychiatric evaluation and should take about 10–15 minutes for the clinician to better understand the patient’s severity of suicidal thoughts, plans, psychiatric symptoms, and risk and protective factors. With this information, the clinician will be able to more precisely triage patients who disclosed suicidal ideation in the screen. A BSSA can be conducted by a mental health professional or a non-mental health clinician who is trained to evaluate suicide risk (e.g., physician, nurse practitioner, physician assistant). Training on how to conduct the BSSA can be found in the ASQ Toolkit (41).

The BSSA yields information that enables clinicians to avoid uniformly treating individuals with suicide risk as emergencies. It helps clarify a patient’s risk severity, which then allows the clinician to discern between imminent risk, mild risk, and, more likely, the patients who require further evaluation. Rational, evidence-based plans in place to manage positive screens guard against patients feeling that punitive measures are being taken against them for disclosing suicidal ideation. Notably, reactive hospitalization is a distressing process that limits connection to social supports and coping skills (67, 68). This practice should be reserved only for acute emergencies, and a BSSA can help in deciding the next steps and limit burden on both patients and staff.

This BSSA can also identify the timeline and setting for follow-up treatment; some patients may benefit from outpatient mental health treatment, whereas others may only require ongoing in-office management, such as safety planning or lethal means safety counseling.

The BSSA should not be confused with a full psychiatric evaluation, as it is a brief conversation that explores the patient's context for endorsing questions in the brief screen. These assessments can also identify whether the patient has a plan or means for attempting suicide, other significant risk factors, and social supports. These findings will inform later interventions that the clinician may administer, such as safety planning or lethal means safety counseling. For the BSSA, TJC provides a list of evidence-based tools to meet NPSG 15 requirements, including the C-SSRS and the ASQ BSSA (4). Virtual trainings for both the C-SSRS and ASQ are available (41, 65).

TIER 3: DISPOSITION

The BSSA has three possible outcomes that guide a provider's next steps in caring for the patient who disclosed suicidal ideation or suicidal behavior: imminent risk or acute positive screens, moderate risk or further evaluation needed, and mild risk.

Imminent Risk or Acute Positive Screens

Patients who screen as acute positive or are deemed to be at imminent risk for suicide need emergency psychiatric and safety evaluations. This is an urgent situation, and health care providers have an obligation to take immediate actions to ensure the safety of the patient. In the rare case that a patient reports current thoughts of suicide and is at imminent risk, practices should use "standard of care" safety procedures. Patients should not be left alone or be able to leave until they are evaluated for safety with a full psychiatric evaluation. Clinicians should remove any harmful items from the room and place the patient with a one-on-one observer until they can receive an emergency safety evaluation. This emergency evaluation may be performed by on-site mental health professionals, mobile crisis teams, or ED physicians.

Moderate Risk or Further Evaluation Needed

Patients requiring further evaluation do not require emergency care or one-on-one safety precautions, but they need a comprehensive evaluation from a mental health professional as soon as possible. Although this patient may report recent ideation or past behavior, the concern is not active or acute. Immediate interventions may include the development of a collaborative safety plan, lethal means safety counseling, and increasing access to crisis resources. The provider should also schedule a follow-up visit or phone call within 7 days to evaluate ongoing risk and confirm whether the patient obtained a mental health appointment. In cases where outpatient mental health treatment is not viable, consider proceeding

with ongoing management of suicide risk within the office until the patient can be further evaluated; proceed by means of telehealth sessions, if available. It is important to differentiate between imminent and moderate risk. An example of a patient with moderate risk may be someone who has frequent thoughts of suicide, perhaps even a plan, but denies current intent to kill themselves and has some protective factors, such as good social support and reasons for living.

There may be some patients who refuse follow-up assessments for non-acute positive screens. In these cases, clinicians can try to impress upon patients the importance of further assessing suicidal thoughts. However, if the adult patient or the parent or guardian of a pediatric patient refuses the assessment, then clinicians should document the refusal in the health record and follow standard procedures for an "against medical advice" discharge. Only the imminent-risk and acute positive screens are not permitted to leave before further assessment.

Mild Risk

For patients at mild risk, no further evaluation is needed. They may benefit from a nonurgent mental health follow-up to address emotional distress or psychiatric concerns. When appropriate, ongoing management or brief interventions may occur within the office, such as developing a safety plan in the event that the patient has future suicidal thoughts. The patient should receive the 988 Suicide and Crisis Lifeline number, as well as other applicable prevention resources.

Additional resources are available to guide disposition outcomes for patients who screen positive. For example, the AAP-AFSP Blueprint for Youth Suicide Prevention (3), ASQ Toolkit (41), and the Zero Suicide Toolkit (64) describe how health care systems can play an active role in suicide prevention.

CONCLUSIONS

Providers in medical settings are uniquely positioned to identify suicide risk in patients across the lifespan and connect them to further mental health care. Implementing the three-tiered clinical pathway of screening, assessing, and disposition is rational, feasible, and effective. Future research and policies should examine how to best address the needs of high-risk populations by ensuring that cultural sensitivity plays a role in accurately detecting risk and guiding treatment decisions among all patients. Through universal screening, every health care provider has a chance to reduce the risk of suicide.

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