

Assessment and Management of Patients at Risk for Suicide: Synopsis of the 2019 U.S. Department of Veterans Affairs and U.S. Department of Defense Clinical Practice Guidelines

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Description: In May 2019, the U.S. Department of Veterans Affairs (VA) and U.S. Department of Defense (DoD) approved an update to the 2013 joint clinical practice guideline for assessing and managing patients who are at risk for suicide. This guideline provides health care providers with a framework by which to screen for, evaluate, treat, and manage the individual needs and preferences of VA and DoD patients who may be at risk for suicide.

Methods: In January 2018, the VA/DoD Evidence-Based Practice Work Group convened to develop a joint VA/DoD guideline including clinical stakeholders and conforming to the National Academy of Medicine's tenets for trustworthy clinical practice guidelines. The guideline panel drafted key questions, systematically searched and evaluated the literature through April 2018, created algorithms, and advanced 22 recommendations in accordance with the GRADE (Grading of Recommendations Assessment, Development and Evaluation) system.

Recommendations: This synopsis, which includes 3 clinical practice algorithms, summarizes the key recommendations of the guideline related to screening and evaluation, risk management and treatment, and other management methods. Risk management and treatment recommendations address both pharmacologic and nonpharmacologic approaches for patients with suicidal ideation and behavior. Other management methods address lethal means safety (such as restricting access to firearms, poisons, and medications and installing barriers to prevent jumping from lethal heights) and population health strategies.

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Suicide is a public health problem, with worsening trends in recent decades. Nationwide, suicide rates increased 25% from 1999 to 2016 (1). All states reporting to the National Violent Death Reporting System, except Nevada, indicated an increase in suicide rates during this period, ranging from 6% to 58% (2). During that same time, the U.S. Department of Defense (DoD) active component suicide rate increased from 10.7 to 21.5 suicide-related deaths per 100 000 service members (3).

Suicide rates have been particularly high among army personnel, the service members who engaged in the most ground combat during the recent conflicts in Iraq and Afghanistan. In 2016, suicide occurred in 26.7, 31.6, and 20.6 per 100 000 U.S. Army, Army National Guard, and Army Reserve members, respectively. According to DoD Suicide Event Report data, 127 army soldiers and 150 national guard or reserve members took their own lives in 2016 (3). Among these suicides, personally owned firearms were the most common method used (58.9% of all suicide deaths) (4).

Each day, 20 veterans die by suicide (4). Compared with age- and sex-matched civilian cohorts, veterans have a 21% higher suicide rate (5). Differences also exist between veterans who do and those who do not use Veterans Health Administration (VHA) services: An 8% increase in suicides was observed among veterans who used VHA services versus 35.5% among those who did not. Of note, rates among female veterans who do not use VHA services have increased by 81.6%; however, rates among female veterans who do use VHA services decreased by 2.6% (5).

GUIDELINE DEVELOPMENT PROCESS

The recommendations were developed according to a process established by the Evidence-Based Practice Work Group that adheres to the standards described for trustworthy guidelines published by the Institute of Medicine in 2011 (6-8). Members of the guideline project team completed conflict-of-interest disclosures for relationships in the previous 2 years. Web-based surveillance (for example, by ProPublica) also was used to screen for potential conflicts of interest among project team members. The Evidence-Based Practice Work Group selected 3 guideline panel coauthors—1 from the VA and 2 from the DoD. The coauthors selected a multidisciplinary panel of practicing clinician stakeholders, including primary care physicians, psychologists, psychiatrists, pharmacists, nurse practitioners, social workers, and nurses, to develop the guideline.

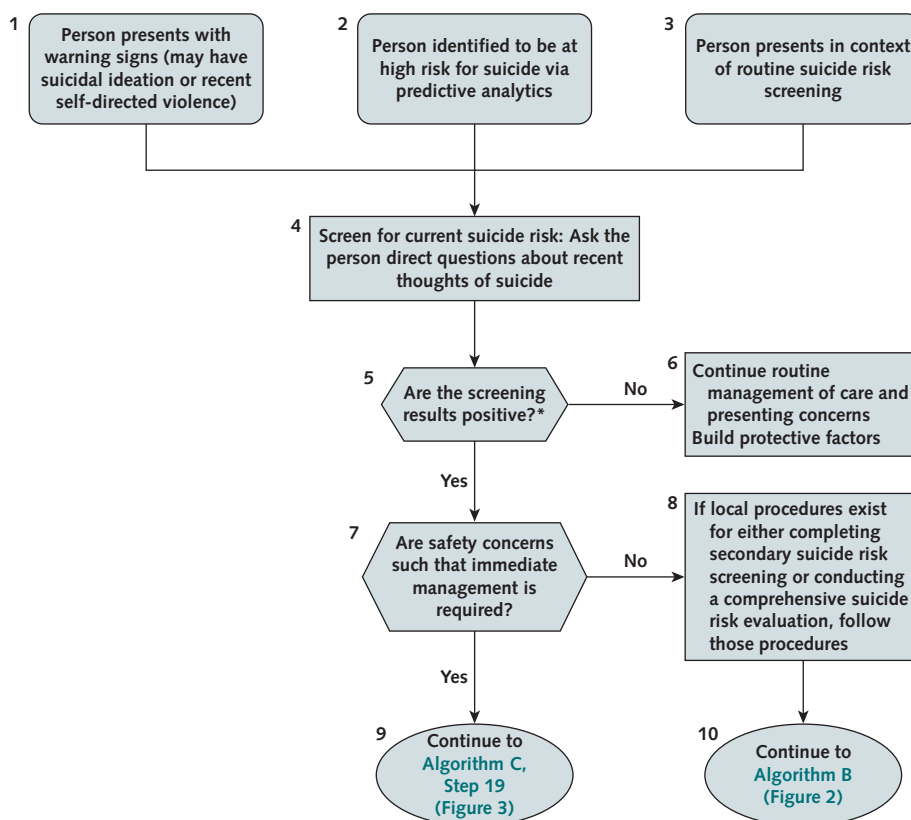
The Evidence-Based Practice Work Group contracted with the Lewin Group, a third party with expertise in developing clinical practice guidelines, to facilitate meetings and to help draft key questions using the PICOTS (population, intervention, comparator, outcomes, timing of outcomes measurement, and setting) format. The guideline panel developed 12 key ques-

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Figure 1. Algorithm A: Identification of risk for suicide.

* Continue to Step 7 if screening results are negative but additional evidence (e.g., collateral) suggests the need for continued screening or evaluation.

tions to guide the evidence review. ECRI Institute performed a systematic search of the peer-reviewed literature beginning with the end date of the literature review from the previous version of the guideline—November 2011—through April 2018. The search identified 70 studies relevant to the key questions, including randomized trials, systematic reviews, and meta-analyses of fair or better quality. The search methods and results are detailed in the full guideline (available at www.healthquality.va.gov). All members of the guideline panel participated in the evidence review and development of the recommendations in accordance with the GRADE (Grading of Recommendations Assessment, Development and Evaluation) method (9–11).

RECOMMENDATIONS

The guideline's goal is to reduce the incidence of suicide through screening for and evaluation of suicidal risk, as well as to provide quality care to patients identified as having an elevated risk. The guideline panel developed 3 algorithms to highlight current best practices (Figures 1 to 3) and formulated 22 evidence-based recommendations organized into 3 categories (Appendix Table, available at Annals.org). In general, the panel found strong support for assessing risk fac-

tors as part of a comprehensive evaluation of suicide risk. It also found support for cognitive behavioral therapy (CBT)-based interventions focused on suicide prevention for patients with a recent history of self-directed violence, to reduce future incidents of self-directed violence. Despite a preponderance on the national suicide prevention stage of strategies for community-based intervention, evidence for the benefits of such interventions is lacking. The full guideline report provides complete recommendations, rationale, and supporting evidence (www.healthquality.va.gov).

Screening and Evaluation

Within clinical settings, suicide prevention includes screening for and evaluation of suicide risk. In screening patients for such risk, the question often arises as to whether screening itself might cause patients to think about suicide, subsequently increasing their risk. Although we found no studies that identified risks or harms associated with screening patients for suicide, screening is not problem-free. Current screening tools tend to have an unacceptably high false-positive prediction rate (that is, many persons determined to be “at risk” never have clinically significant suicidal thoughts or behavior) and a low degree of accuracy for identifying true cases (that is, a substantial portion of persons

who die by suicide are not identified by the screening tools) (15, 16).

Several studies identified in the search support the use of Patient Health Questionnaire-9 (PHQ-9) item 9 as a universal screening instrument to identify suicide risk (16, 17). Louzon and colleagues (16) evaluated 447 245 patients who received PHQ-9 assessments across VHA care settings and found that higher levels of suicidal ideation, as identified by responses to item 9, were associated with an increased risk for death by suicide. Likewise, Simon and colleagues (17) examined the relationship between PHQ-9 item 9 scores and death by suicide among outpatients receiving care for depression in mental health and primary care clinics in a large integrated health system and found that endorsement of responses predicted both suicide attempts and death within the year after administration.

The Columbia-Suicide Severity Rating Scale (C-SSRS) is another screening tool used frequently to assess suicide risk. In a systematic review of such instruments, Runeson and colleagues (18) concluded that too few studies were available to assess the accuracy of the C-SSRS (18). Studies using larger samples, adult cohorts, mortality as the key outcome, and prolonged follow-ups are needed. Until such research is completed, the C-SSRS is not recommended to screen for suicide risk.

Evaluation of suicide risk is a critical function of both mental health and primary care providers. Currently, providers use many tools and methods to gauge suicide risk. The outcome of these assessments may have a substantial effect on patients and their families. Ideally, if risk level is accurately stratified, the patient is triaged to an appropriate level of care and is given the necessary treatment referrals. If it is incorrectly stratified, the patient may be harmed by inappropriate recommendations, exposure to an inaccurate level or dose of care, or a lack of referral for appropriate treatments. A review of the evidence did not identify a specific instrument or method (such as a structured clinical interview, self-reported measure, or predictive analytic model) that can sufficiently determine risk level. Moreover, a reliable tool to stratify patients at risk for suicide remains elusive (19). Recognizing the risk for misclassification, clinicians should use caution in assessing suicide risk and not rely exclusively on any one tool. Using several means to evaluate risk (such as self-reported measures and clinical interviews) is recommended.

Risk Management and Treatment

Pharmacologic

Pharmacologic therapies manifest various effects that are complicated by comorbid psychiatric conditions. Some patients with major depression who have suicidal ideation may benefit from ketamine infusions. Evidence exists that ketamine infused as a single dose (0.5 mg/kg) results in rapid improvement of suicidal ideation symptoms. The benefits begin within 24 hours of the infusion and continue for at least 1 week (20) and, in some cases, up to 6 weeks (21). In a meta-

analysis of ketamine trials, 55% of patients who received ketamine reported no suicidal ideation after 24 hours and 60% reported that they were no longer having suicidal ideations at 7 days (20).

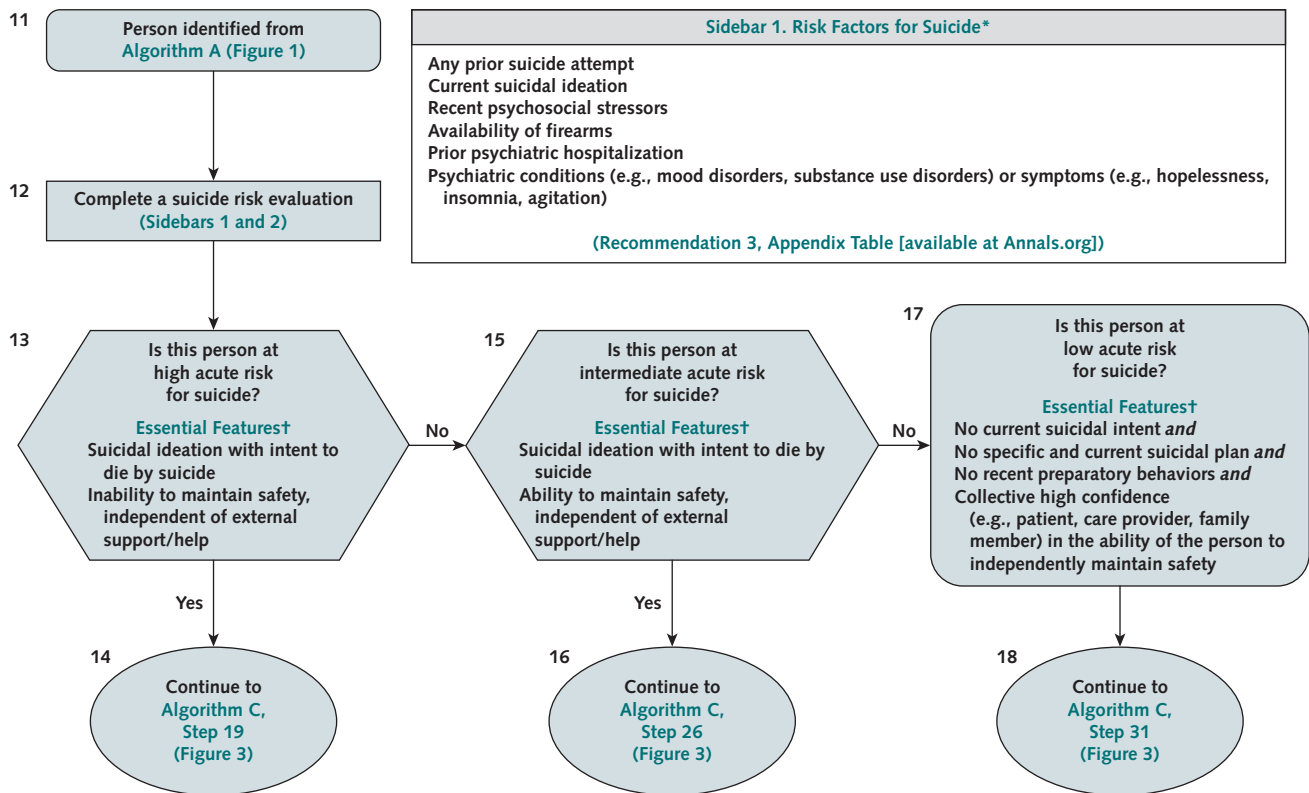
Lithium may reduce the risk for suicide in patients with unipolar depression or bipolar disorder. Several cohort studies and systematic reviews found that lithium maintenance therapy was associated with fewer suicidal behaviors and deaths (12-29). Clozapine may reduce suicidal behaviors in patients with schizophrenia or schizoaffective disorder (30, 31). Some of the success attributed to this drug may be a result of the surveillance required by the Clozapine Risk Evaluation and Mitigation Strategy monitoring program. This initiative mandates frequent visits to health care providers for monitoring of laboratory results before clozapine refills are dispensed. The program also may be a barrier to clozapine therapy, because some patients are unwilling to commit to the level of monitoring and blood draws that it requires. In addition, clinicians may be hesitant to prescribe clozapine because of its associated risk for agranulocytosis.

Nonpharmacologic

Evidence exists to support the use of CBT to reduce suicidal ideation and behavior (32-34) and hopelessness (33) in patients with a history of self-directed violence. Cognitive behavioral therapy teaches patients to identify and change problematic thinking and behavioral patterns with the expectation that this strategy will affect their emotional experience. In the studies reviewed, most patients attended fewer than 12 CBT sessions. A systematic review by Gøtzsche and Gøtzsche (35) found that among studies in patients who attempted suicide during the previous 6 months, CBT cut the risk for a posttreatment suicide attempt in half compared with treatment as usual. Likewise, a systematic review by Hawton and colleagues (36) found beneficial treatment effects for CBT-based psychotherapy compared with treatment as usual for the outcomes of self-directed violence, suicidal ideation, and hopelessness. In yet another systematic review, Leavey and Hawkins (37) found that CBT reduced suicidal ideation and behavior by more than 50% among a heterogeneous population including patients who had recently attempted suicide.

Evidence also supports the use of dialectical behavior therapy (DBT) for treating suicidal ideation and behavior. Dialectical behavior therapy was originally developed to treat patients with borderline personality disorder, a subpopulation at heightened risk for non-suicidal and suicidal self-directed violence. This approach combines elements of CBT, skills training, and mindfulness techniques with the aim of helping patients develop skills in emotion regulation, interpersonal effectiveness, and distress tolerance. Studies, including 2 systematic reviews and a randomized trial, found evidence that DBT reduces nonsuicidal and suicidal self-directed violence among patients with bor-

Figure 2. Algorithm B: Evaluation by provider.



Continued on the following page

derline personality disorder and recent self-directed violence (36–42). The systematic review by Hawton and colleagues (36) included 5 trials assessing the effectiveness of DBT in participants who received a diagnosis of borderline personality disorder and were referred to outpatient services after a suicide attempt. A small trial included in that review compared DBT-oriented psychotherapy with client-oriented therapy. Compared with client-oriented therapy, DBT reduced posttreatment suicidal ideation and repetition of self-directed violence among patients with borderline personality disorder.

Evidence also was found to support the use of a crisis response plan for persons with suicidal ideation. A study by Bryan and colleagues (38) found a statistically significant difference between crisis response planning and treatment as usual in the number and proportion of suicide attempts, favoring the former. At a minimum, the crisis response plan involves a collaborative approach between patient and clinician that includes the following components: a semi-structured interview regarding recent suicide ideation and history of suicide attempts; an unstructured conversation about recent stressors and current problems, using supportive listening techniques; collaborative identification of clear signs of crisis (behavioral, cognitive, affective, or physical); identification of self-management skills, including steps the patient may take on his or her own to distract from stressors or feel less stressed; collabora-

tive identification of social support, including friends and family members who have helped in the past and whom the patient would feel comfortable contacting in a crisis; a review of crisis resources, including medical providers, other professionals, and the suicide lifeline; and recommendations for treatment, including follow-up appointments and other referrals as needed.

Another approach found to be helpful for patients at risk for suicide is problem-solving therapy, a type of CBT specifically aimed at improving one's ability to cope with stressful life experiences through active problem solving (43–47). For patients with moderate to severe traumatic brain injury, evidence supports the use of a problem-solving treatment called Window to Hope (WtoH). The WtoH approach is structured around 4 core therapeutic strategies: behavioral activation, cognitive restructuring, problem solving, and relapse prevention. A small, single-center, randomized crossover trial tested WtoH as a manualized 16- to 20-hour group intervention delivered in 8 to 10 sessions comprising group formation, behavioral activation, CBT and cognitive restructuring, problem solving, compensatory techniques to address existential challenges associated with the recovery process, relapse prevention, and posttraumatic growth. The intervention improved hopelessness in veterans with moderate to severe traumatic brain injury who were at risk for suicide (48).

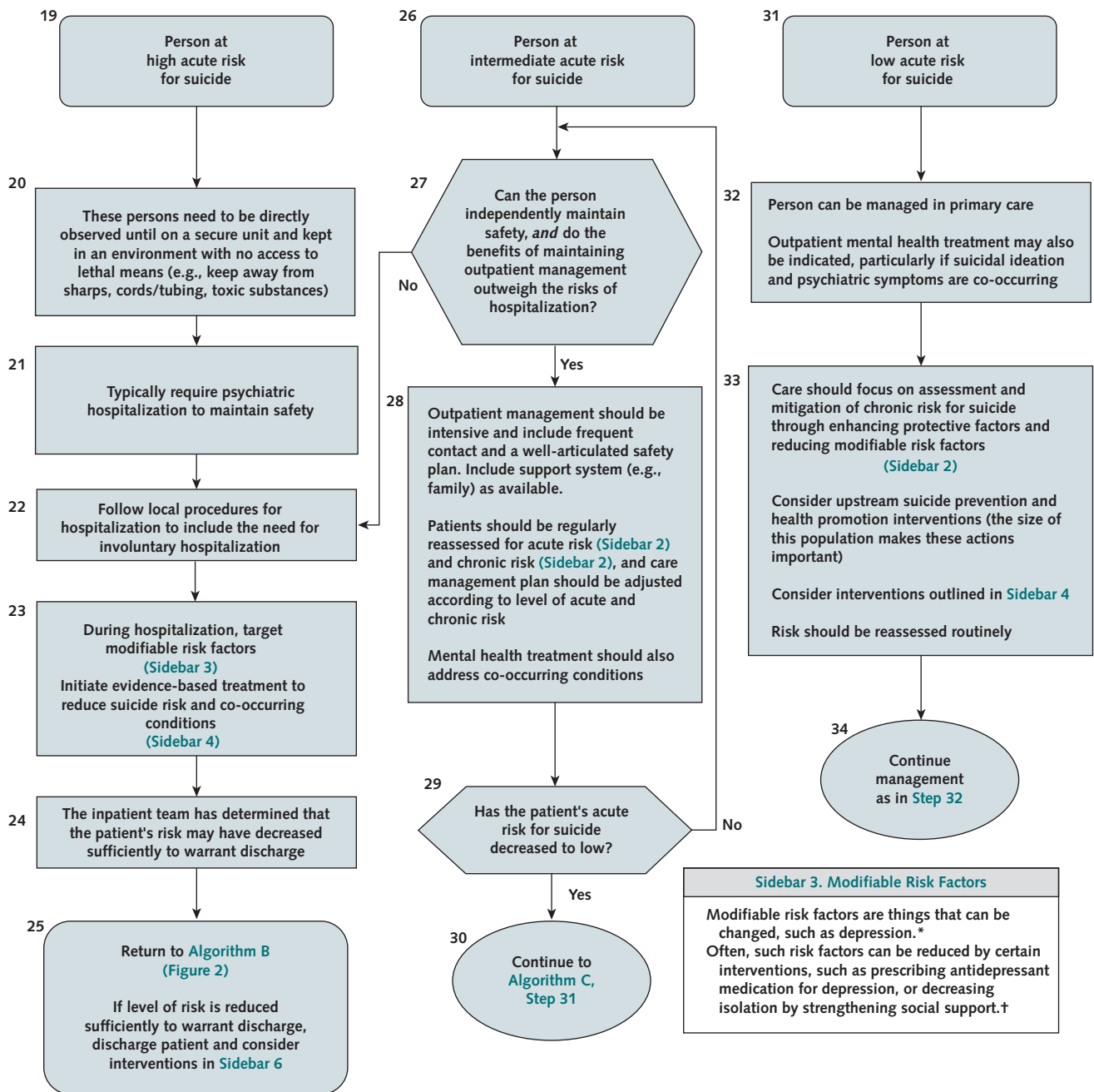
Figure 2—Continued.

Sidebar 2. Essential Features From Risk Stratification Table†		
Level of Risk	Essential Features	Action
Acute		
High	<p>Suicidal ideation with intent to die by suicide</p> <p>Inability to maintain safety, independent of external support/help</p> <p>Common warning signs:</p> <ul style="list-style-type: none"> A plan for suicide Recent attempt and/or ongoing preparatory behaviors Acute major mental illness (e.g., major depressive episode, acute mania, acute psychosis, recent/current drug relapse) Exacerbation of personality disorder (e.g., increased borderline symptomatology) 	<p>Typically requires psychiatric hospitalization to maintain safety and aggressively target modifiable factors</p> <p>These persons may need to be directly observed until they are transferred to a secure unit and kept in an environment with limited access to lethal means (e.g., keep away from sharps, cords or tubing, toxic substances)</p> <p>During hospitalization, co-occurring conditions should also be addressed</p>
Intermediate	<p>Suicidal ideation with intent to die by suicide</p> <p>Ability to maintain safety, independent of external support/help</p> <p>These persons may present similarly to those at high acute risk, sharing many of the features. The only difference may be lack of intent, based on an identified reason for living (e.g., children), and ability to abide by a safety plan and maintain their own safety. Preparatory behaviors are likely to be absent.</p>	<p>Consider psychiatric hospitalization if related factors driving risk are responsive to inpatient treatment (e.g., acute psychosis)</p> <p>Outpatient management of suicidal thoughts or behaviors should be intensive and include frequent contact, regular reassessment of risk, and a well-articulated safety plan</p> <p>Mental health treatment should also address co-occurring conditions</p>
Low	<p>No current suicidal intent <i>and</i></p> <p>No specific and current suicidal plan <i>and</i></p> <p>No recent preparatory behaviors <i>and</i></p> <p>Collective high confidence (e.g., patient, care provider, family member) in the ability of the patient to independently maintain safety</p> <p>Persons may have suicidal ideation, but it will be with little or no intent or specific current plan. If a plan is present, the plan is general or vague and without any associated preparatory behaviors (e.g., "I'd shoot myself if things got bad enough, but I don't have a gun"). These patients will be capable of engaging appropriate coping strategies and willing and able to use a safety plan in a crisis situation.</p>	<p>Can be managed in primary care</p> <p>Outpatient mental health treatment may also be indicated, particularly if suicidal ideation and co-occurring conditions exist</p>
Chronic		
High	<p>Common warning sign:</p> <ul style="list-style-type: none"> Chronic suicidal ideation <p>Common risk factors:</p> <ul style="list-style-type: none"> Chronic major mental illness or personality disorder History of prior suicide attempts History of substance use disorder Chronic pain Chronic medical condition Limited coping skills Unstable or turbulent psychosocial status (e.g., unstable housing, erratic relationships, marginal employment) Limited ability to identify reasons for living 	<p>These persons are considered to be at chronic risk for becoming acutely suicidal, often in the context of unpredictable situational contingencies (e.g., job loss, loss of relationships, relapse on drugs).</p> <p>They typically require:</p> <ul style="list-style-type: none"> Routine mental health follow-up A well-articulated safety plan, including lethal means safety (e.g., no access to guns, limited medication supply) Routine suicide risk screening Coping skills building Management of co-occurring conditions
Intermediate	<p>These persons may show similar chronicity as those at high chronic risk with respect to psychiatric, substance use, medical, and pain disorders</p> <p>Protective factors, coping skills, reasons for living, and relative psychosocial stability suggest enhanced ability to endure future crisis without engaging in self-directed violence</p>	<p>These persons typically require:</p> <ul style="list-style-type: none"> Routine mental health care to optimize psychiatric conditions and maintain/enhance coping skills and protective factors A well-articulated safety plan, including lethal means safety (e.g., safe storage of lethal means, medication disposal, blister packaging) Management of co-occurring conditions
Low	<p>These persons may range from having no or few mental health or substance use problems to having substantial mental illness that is associated with relatively abundant strengths/resources</p> <p>Historically, stressors typically have been endured absent suicidal ideation</p> <p>The following factors will generally be missing:</p> <ul style="list-style-type: none"> History of self-directed violence Chronic suicidal ideation Tendency toward being highly impulsive Risky behaviors Marginal psychosocial functioning 	<p>Appropriate for mental health care on an as-needed basis; some patients may be managed in primary care settings</p> <p>Others may require mental health follow-up to continue successful treatments</p>

* Necessary as part of a comprehensive assessment of suicide risk but not sufficient.

† Reference 12.

Figure 3. Algorithm C: Management of patients at acute risk for suicide.



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Other Interventions

Randomized trials have demonstrated that patients who receive periodic caring communications, such as postcards or letters, after a psychiatric hospitalization for suicidal ideation or a suicide attempt have lower rates of suicide death, attempts, and ideation (49–51). Research further indicates, however, that receipt of a single postcard does not influence outcomes. Rather, this intervention has shown positive effects when communication occurs repeatedly for at least 12 months.

Technologic advances are extending the reach of mental health services. However, evidence is insufficient to recommend for or against technology-based methods for persons with suicidal ideation. Research has focused on the electronic delivery of treatment protocols in lieu of face-to-face therapy. None of the available studies assessed the effectiveness of telehealth as it is routinely practiced across the VA and DoD (that is, face-to-face treatment delivered in a virtual environment). Technology also may be used as an adjunct to

Figure 3—Continued.

<p>Sidebar 4. Evidence-Based Treatment to Reduce Repetition of Suicide Behavior</p> <p>Nonpharmacologic treatments CBT-based interventions for suicide prevention DBT WtoH group intervention Problem-solving therapy (Recommendations 6–10, Appendix Table [available at Annals.org])</p> <p>Crisis response plan (Sidebar 5 and Recommendation 9, Appendix Table [available at Annals.org])</p> <p>Pharmacotherapy for suicide prevention‡ Ketamine infusion (for patients with suicidal ideation and MDD) Lithium alone (for patients with bipolar disorder) or in combination with another psychotropic agent Clozapine (for patients with either suicidal ideation or a history of suicide attempt) (Recommendations 11–13, Appendix Table [available at Annals.org])</p> <p>Other Reduce access to lethal means (Recommendation 19, Appendix Table [available at Annals.org])</p>	<p>Sidebar 5. Crisis Response Plan</p> <p>Semistructured interview of recent suicide ideation and chronic history of suicide attempts Unstructured conversation about recent stressors and current complaints, using supportive listening techniques Collaborative identification of clear signs of crisis (behavioral, cognitive, affective, or physical) Self-management skill identification, including things that can be done on the patient's own to distract or feel less stressed Collaborative identification of social support, including friends and family members who have helped in the past and who the patient would feel comfortable contacting in crisis Review of crisis resources, including medical providers, other professionals, and the suicide lifeline (1-800-273-8255) Referral to treatment, including follow-up appointments and other referrals as needed Consider protective factors Additional steps for management of military service members Inform command Determine utility of command involvement Address barriers to care (including stigma) Ensure follow-up during transition Enroll in risk management tracking (Recommendation 9, Appendix Table [available at Annals.org])</p>
<p>Sidebar 6. Interventions to Improve Adherence</p> <p>Facilitating access to care Outreach (e.g., telephone contact, home visit, caring letters/postcards) Case/care management Counseling and other psychosocial interventions (Recommendations 14–16, Appendix Table [available at Annals.org])</p>	

CBT = cognitive behavioral therapy; DBT = dialectical behavior therapy; MDD = major depressive disorder; WtoH = Window to Hope.

* Reference 13.

† Reference 14.

‡ Other treatments may be indicated for underlying conditions (see U.S. Department of Veterans Affairs/Department of Defense clinical practice guidelines for MDD, posttraumatic stress disorder, substance use disorder, etc.).

routine suicide prevention. Studies evaluating the effect of this type of technology-based intervention are rare. Although the body of evidence is small and does not demonstrate a favorable impact on critical outcomes, the studies reviewed show that this approach is important for increasing access and continuity of care for rural populations and persons who travel frequently or are deployed.

Other Management Methods

Lethal Means Safety

Evidence exists to support implementation of lethal means safety, including firearm restrictions, reduced access to poisons and medications associated with overdose, and barriers to jumping from lethal heights, as a way to reduce suicide in populations.

Access to firearms is a risk factor for death by suicide (52, 53). Firearms are the method used in half the suicides in the United States (54), and approximately 90% of suicide attempts involving a firearm result in death (55). Recent studies found that differences in state laws regulating access to firearms, as well as higher state-level firearm ownership rates (56), are associated with firearm-related and overall suicide rates, even after important demographic and geographic factors are taken into account (57, 58). Veterans and military service members are more likely than the general population to use firearms as a method for dying by suicide (59). Military service members often have ready

access to firearms, and veterans have higher rates of firearm ownership than civilians (60).

One systematic review reported that the presence of firearms in the home is associated with increased risk for suicide (53). Like their VA and civilian counterparts, DoD health care providers have no restrictions regarding inquiries and recommendations pertaining to weapons ownership or carriage. The DoD has long had mechanisms for leaders to arrange for military- and civilian-issued weapons to be sequestered in armories for operational units during leave periods, for service members in treatment for behavioral health conditions, and for any person exhibiting behaviors of concern.

Weapons restrictions among military service members are buttressed by state and federal law and policy measures in both the VA and DoD. For instance, persons convicted of a felony cannot own or carry weapons. Sentences of longer than 1 year by court martial result in a report to a national database that prohibits weapons purchase and ownership. Population-based weapons restrictions have been effective in a Western military population, although they are limited in generalizability by geographic variability and changes in gun statutes, cultural attunements, and greater rates of weapons ownership in the United States than other Western nations. A naturalistic epidemiologic study of the Israel Defense Forces found that unit-by-unit weapons storage on bases for soldiers aged 18 to 21 years

on weekend leave reduced suicide deaths on weekends but not weekdays (61). No randomized trial has systematically ascertained the effects of population-based weapons restrictions.

Approaches to means safety counseling (also referred to as “lethal means counseling”) have been developed to reduce deaths by firearms and other means. Means safety counseling consists of discussions between clinicians and patients who have an elevated risk for suicide. Fewer than half of U.S. gun owners report storing their firearms safely (defined as all guns stored in a locked gun safe, cabinet, or case; locked into a gun rack; or stored with a trigger lock or other lock) (62). One third of veterans store at least 1 firearm loaded or unlocked (63). Examples of means safety recommendations, depending on risk level, include storing firearms in locked cabinets; using gun locks; giving keys to these locks to family members, caregivers, or friends; temporarily transferring firearms to someone legally authorized to receive them; and removing firing pins or otherwise disabling the weapon (64–67).

Another commonly used method for suicide among veterans and military service members is poisoning, including medication overdose. Access to opioid medications has been associated with increased rates of intentional and unintentional overdose death (68, 69). One study demonstrated that as access to paracetamol (acetaminophen) increased in the United Kingdom, so did rates of attempted suicide and death by suicide via overdose (70). Another study examined whether legislation reducing the size of paracetamol pill packs had an effect on the number of paracetamol-induced poisoning cases (71). The researchers found that after the policy was enacted, suicide and accidental poisoning deaths due to paracetamol overdose decreased.

Two studies examined the effects of restricted access to pesticides. An observational study compared suicide rates before and after paraquat, dimethoate, and fenthion were banned in Sri Lanka (72). A randomized controlled feasibility study examined the effect of providing centralized storage facilities for pesticides versus no intervention in 4 villages in India (73). Both studies reported a decrease in suicide deaths from pesticide exposure as well as suicide from all causes.

A systematic review of 9 pre-post studies considered whether installing barriers or other structural measures prevents suicide by jumping from a lethal height (74). Although jumping suicides decreased at sites with structural barriers, they increased at nearby sites without them; overall, however, jumping suicides decreased. This analysis did not consider suicide from other causes in the regions studied; therefore, whether persons chose a method other than jumping or whether all-cause suicide decreased cannot be determined.

Population Health

More than a half-century of public health strategy has focused on community-based interventions to prevent suicide. Every state in the nation—as well as federal agencies, including the VHA, DoD, and Substance Abuse and

Mental Health Administration—has fostered a community-based approach to suicide prevention. The systematic review of the evidence related to community-based interventions, however, was inconclusive, and no recommendations could be made regarding specific approaches. To be specific, our recommendations reflect insufficient evidence to recommend for or against community-based interventions targeting patients at risk for suicide; interventions to reduce population-level suicide rates; gatekeeper training alone to reduce suicide rates; and buddy support programs to prevent suicide, suicide attempts, or suicidal ideation.

The work group's confidence in the quality of evidence was very low (53, 67–76). The body of evidence had limitations, including inadequate assessment and analysis of confounders. Other considerations include a lack of evidence that potential benefits (such as definitive management resulting in an aggregate decrease in death) outweigh the potential harm of adverse events (such as fostering contagion or bypassing evidence-based care).

DIFFERENCES AMONG SUICIDE GUIDELINES

The ECRI Guidelines Trust Web site (guidelines.ecri.org) is a public repository for evidence-based clinical practice guidelines. The leading suicide guidelines on this site were developed by the U.S. Preventive Services Task Force (USPSTF) and the American Psychiatric Association (APA). Neither set of guidelines includes recommendations for screening for suicide risk in the general population. According to the USPSTF, when it developed its guideline in 2014 data on screening and assessment tools were too limited to make a recommendation. The APA guideline begins by recommending a psychiatric evaluation for any patient who is determined to be at increased risk for suicide. The VA/DoD guideline begins with a recommendation for screening all patients for suicide risk. For those identified as having an increased risk, both the APA and the VA/DoD guidelines recommend a multifactorial psychiatric evaluation to assess the level of suicide risk. These factors include current suicidal ideation and plans, current and previous mental health diagnoses, and current biopsychosocial stressors (such as the end of a relationship).

KNOWLEDGE GAPS AND RECOMMENDED FUTURE RESEARCH

Although the body of evidence in suicide prevention research continues to develop, critical gaps remain in our understanding of how to most efficaciously and effectively identify and treat persons at risk for suicide. Our evidence review found limited data regarding instruments to screen and evaluate patients to stratify risk, pharmacologic and nonpharmacologic interventions, the effectiveness of community-based interventions, and post-acute care monitoring strategies.

Because the burden of suicidal behavior and the rate of death by suicide remain elevated in the DoD and VA populations, as well as in the nation at large,

well-designed research studies among persons at known risk for suicide on the basis of previous behavior or attempts, or those at elevated risk because of comorbid behavioral health or substance use disorders, are critical to identify effective prevention, early intervention, and treatment methods. Likewise, existing evidence is insufficient to endorse any of the myriad community-based suicide prevention strategies currently being used. Further research regarding such interventions as gatekeeper training, crisis lines, and peer-to-peer counseling is necessary to establish the effectiveness of these approaches and the overall balance of benefit versus harm.

A complete copy of the Assessment and Management of Patients at Risk for Suicide clinical practice guideline and clinician summary may be accessed at www.healthquality.va.gov.

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Appendix Table. Table of Recommendations

Recommendation Number	Recommendation	Strength*	Category*
Screening and evaluation			
Screening			
1	With regard to universal screening, use a validated screening tool to identify patients at risk for suicide-related behavior	Weak for	Reviewed, newly added
2	With regard to selecting a universal screening tool, use PHQ-9 item 9 to identify suicide risk	Weak for	Reviewed, newly added
Evaluation			
3	Assess risk factors as part of a comprehensive evaluation of suicide risk, including but not limited to current suicidal ideation, prior suicide attempts, current psychiatric conditions (e.g., mood disorders, substance use disorders) or symptoms (e.g., hopelessness, insomnia, agitation), prior psychiatric hospitalization, recent biopsychosocial stressors, and the availability of firearms	Strong for	Reviewed, newly replaced
4	When evaluating suicide risk, avoid using a single instrument or method (e.g., structured clinical interview, self-report measures, or predictive analytic models)	Weak against	Reviewed, amended
5	Although risk stratification is an expected standard of care, insufficient evidence exists to recommend for or against its use to determine the level of suicide risk	Neither for nor against	Reviewed, newly replaced
Risk management and treatment			
Nonpharmacologic treatments			
6	Use CBT-based interventions focused on suicide prevention for patients with a recent history of self-directed violence to reduce incidents of future self-directed violence	Strong for	Reviewed, newly added
7	Offer DBT to patients with borderline personality disorder and recent self-directed violence	Weak for	Reviewed, newly replaced
8	Complete a crisis response plan for patients with suicidal ideation or a lifetime history of suicide attempts	Weak for	Reviewed, newly replaced
9	Offer problem-solving-based psychotherapies to patients with: A history of >1 incident of self-directed violence, to reduce repeated incidents of such behaviors A history of recent self-directed violence, to reduce suicidal ideation Hopelessness and a history of moderate to severe traumatic brain injury	Weak for	Reviewed, newly replaced
Pharmacologic treatments			
10	For patients with suicidal ideation and major depressive disorder, offer ketamine infusion as an adjunctive treatment for short-term reduction in suicidal ideation	Weak for	Reviewed, newly added
11	Offer lithium alone (for patients with bipolar disorder) or combined with another psychotropic agent (for patients with unipolar depression or bipolar disorder) to decrease the risk for death by suicide among patients with mood disorders	Weak for	Reviewed, newly replaced
12	Offer clozapine to decrease the risk for death by suicide in patients with schizophrenia or schizoaffective disorder and either suicidal ideation or a history of suicide attempt	Weak for	Reviewed, amended
Postacute care			
13	Send periodic caring communications (e.g., postcards) for 12-24 mo in addition to usual care after psychiatric hospitalization for suicidal ideation or a suicide attempt	Weak for	Reviewed, newly replaced
14	Offer a home visit to support reengagement in outpatient care for patients not presenting for outpatient care after hospitalization for a suicide attempt	Weak for	Reviewed, amended
15	Offer the World Health Organization brief intervention and contact plan, in addition to standard care, to patients after they present to the emergency department for a suicide attempt	Weak for	Reviewed, newly added
Technology-based methods			
16	Insufficient evidence exists to recommend for or against technology-based behavioral health treatment methods—including self-directed digital delivery of treatment protocols with minimal or no provider interaction (e.g., compact disc, Web-based) and provider-delivered virtual treatment—for patients with suicidal ideation	Neither for nor against	Reviewed, newly replaced
17	Insufficient evidence exists to recommend for or against the use of technology-based adjuncts (e.g., Web or telephone applications) to routine suicide prevention treatment for patients with suicidal ideation	Neither for nor against	Reviewed, newly replaced
Population- and community-based interventions			
18	Reduce access to lethal means to decrease suicide rates at the population level	Weak for	Reviewed, newly added
19	Insufficient evidence exists to recommend for or against community-based interventions targeting patients at risk for suicide	Neither for nor against	Reviewed, newly added
20	Insufficient evidence exists to recommend for or against community-based interventions to reduce population-level suicide rates	Neither for nor against	Reviewed, newly added
21	Insufficient evidence exists to recommend for or against gatekeeper training alone to reduce population-level suicide rates	Neither for nor against	Reviewed, newly added
22	Insufficient evidence exists to recommend for or against buddy support programs to prevent suicide, suicide attempts, or suicidal ideation	Neither for nor against	Reviewed, newly added

CBT = cognitive behavioral therapy; DBT = dialectical behavior therapy; PHQ-9 = Patient Health Questionnaire-9.

* For additional information, please refer to the full guideline (available at www.healthquality.va.gov/guidelines/MH/srb).