

Suicide and Firearms

Reducing suicidal patients' access to guns can save lives

One of the most effective ways to reduce suicide risk is to put time and distance between the at-risk person and lethal means.

Clinicians should counsel patients with risk factors for suicide about reducing firearm access and choose appropriate interventions based on the level of risk and the ability of the patient to collaborate. Reducing lethal means makes it less likely that a suicide attempt will be fatal, especially because most suicidal crises are temporary, and many attempts happen with relatively little planning.

The Numbers

Suicide is the tenth leading cause of death in the United States, and the third leading cause among adolescents and young adults.¹ More than half of completed suicides in the US are by firearm, despite the fact that only 5% of attempts are made with a gun.² This is because firearms are by far the most lethal method of suicide, with about a 10% survival rate.^{2,3} Self-inflicted firearm injuries are also much more lethal than assaultive and unintentional firearm injuries, which 73% and 99% of injured patients survive, respectively.³ On average, there are more than 21,128 completed suicides and about 2,500 self-inflicted nonfatal injuries caused by firearms in the US each year.

Research indicates that just having a firearm in the home increases a household member's risk of suicide by more than three times.⁴ One study found that after controlling for other factors, for each 10% increase in household gun ownership in a state, the youth suicide rate increased by 27%.⁵ This is not because people in homes with firearms are more likely to consider or attempt suicide, but rather because if they do, they are more likely to die. It's a common perception that because of their length, rifles and shotguns cannot be used to inflict self-injury. However, one study of data from 13 states found that long guns were used in nearly a third of firearm suicides, and that they were disproportionately used in youth suicides and in suicides in rural areas.⁶



Putting time and distance between a suicidal individual and their firearm can be the difference between life and death. The majority of near lethal suicide attempts are made with little planning, and 90% of people who survive one attempt do not go on to die by suicide.^{7,8} This means that if an attempt can be aborted or survived because the available means are of low lethality, the person's life may be saved.

Who's at Risk

Suicide is a complex, multi-factorial problem with social, economic, cultural and psychiatric roots. In the United States, suicide rates vary with geography, being highest in rural areas, particularly the Intermountain West, Appalachia, and Alaska. This may reflect a variety of risk factors including social isolation, lack of access to medical and mental health care, high rates of firearm ownership, and economic hardship.⁹

Mental Illness

It is unknown exactly how much mental illness contributes to suicide rates, but research has estimated that about half of suicide decedents meet criteria for a mental illness at the time of their death.¹⁰ Major depressive disorder is one of the diagnoses most commonly associated with suicide (lifetime risk of 3.4%) because of the relatively large number of people who have it.¹¹ While fewer people are diagnosed with schizophrenia or bipolar disorder, the risk of suicide with those disorders is higher, approximately 5% and up to 20% respectively.^{12,13} While many firearm prohibitions are targeted at people with mental illness, these are not sensitive enough to be effective at preventing suicide: a study of individuals with serious mental illness found that most people who completed suicide with a firearm were legally allowed to own a gun at the time of their deaths.¹⁴

Other Risk Factors

Other medical illnesses contribute to the burden of suicide in the United States. Patients who suffer from chronic medical disorders, particularly chronic pain, are at elevated risk.¹⁵ Alcohol use disorder is also associated with an increase in suicide risk.¹⁶ Additionally, among suicide decedents tested for acute alcohol use in 18 states, alcohol was present in more than one-third (35%) of those who had used firearms, and the amount of alcohol consumed was significantly greater among those who had died by firearms than by hanging or by poisoning.¹⁷

The veteran suicide rate is more than twice as high as the non-veteran rate, and veterans are more likely to use firearms in suicides (68% vs 48% in the general population).¹⁸ This may be due to higher ownership rates: 44% of veterans report owning firearms compared to 19% of non-veterans.¹⁹ Even though veterans may be familiar with safe storage



practices, a survey of veteran firearm owners found that one in three stored at least one of their firearms loaded and unlocked.²⁰ The lethality of firearms in suicide attempts combined with ready access due to unsafe storage practices contribute to elevated risk. For more information on veteran suicide, [click here](#).

Although minors are not able to legally purchase firearms under federal law,²¹ they are still at risk of firearm suicide. Teen suicide rates are increasing faster than those of any other age group,²² and 40% of suicides among people under 18 are by firearm.¹ Research suggests that most of these firearms come from their homes and belong to a family member.^{23,24}

The presence of children in the household with risk factors for self-harm doesn't appear to influence parents' or caregivers' decisions about whether to keep firearms in the home nor how to store them. Even when children have self-harm risk factors, 12% of gun-owning parents store at least one firearm loaded and not locked up.²⁵

What You Can Do

Clinicians of various specialties are in a unique position to counsel patients at risk for firearm suicide, and though many believe it to be within their purview, few actually do it.

No single solution, like better access to mental health services or improved social supports, will eliminate suicide, but limiting access to lethal means is one of the few evidence-based methods of reducing suicides.



In a study of physician documentation in emergency medicine, only 3% of patient encounters in which suicidal ideation was the chief complaint had documented access to firearms in the chart.²⁶ Another study found only 27% of psychiatrists had a routine system for asking patients if they owned firearms.²⁷ Clinicians often cite lack of time, uncertainty about

how to have these conversations, and lack of knowledge about how to intervene appropriately as barriers to discussing firearms with patients.

Depending on the acuity of the patient's suicidality and their willingness to collaborate on lethal means safety, a variety of options are available to the clinician. If the person's suicidality is not acute but poses a chronic or intermittent risk, [safe storage](#) counseling or [temporary transfer](#) of firearms may be viable options. If the person at risk does not own firearms but lives with someone who does, counseling the other firearm owners about safe storage may reduce the patient's access. Key to these conversations are:

- Focusing on the temporary nature of most suicide risk
- Reviewing the voluntary options for reducing firearm access
- Engaging trusted family or friends

If the risk is more acute, involuntary options like a civil protective order and/or a 5150 hold may be more appropriate.

Further clinician training for this type of [counseling](#) is available. The "[Lock to Live](#)" online decision aid can help adults think about storage or transfer options. If the person is at imminent risk of self-harm and needs mental health treatment, an involuntary [mental health hold](#), called a [5150](#) in California, (or for emergency clinicians, a [1799 hold](#)) may be indicated. If criteria are not met for a mental health hold, and the patient is not willing to relinquish their firearms, a [civil protective order](#) poses an option for temporary, involuntarily removal of guns.

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References

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. [Web-based Injury Statistics Query and Reporting System \(WISQARS\) \[online\]](#).
2. Conner, A., Azrael, D., & Miller, M. (2019). [Suicide case-fatality rates in the United States, 2007 to 2014. A nationwide population-based study](#). *Annals of Internal Medicine*.
3. Kaufman, E. J., Wiebe, D. J., Xiong, R., A., et al. (2020). [Epidemiologic trends in fatal and nonfatal firearm injuries in the US, 2009-2017](#). *JAMA Internal Medicine*.
4. Anglemeyer, A., Horvath, T., & Rutherford, G. (2014). [The Accessibility of Firearms and Risk for Suicide and Homicide Victimization Among Household Members](#). *Annals of Internal Medicine*.
5. Knopov, A., Sherman, R. J., Raifman, J. R., et al. (2019). [Household Gun Ownership and Youth Suicide Rates at the State Level, 2005-2015](#). *American Journal of Preventive Medicine*.
6. Hanlon, T.J., Barber, C., Azrael, D., et al. (2019). [Type of Firearm Used in Suicides: Findings From 13 States in the National Violent Death Reporting System, 2005-2015](#). *Journal of Adolescent Health*.
7. Miller, M., & Hemenway, D. (2008). [Guns and Suicide in the United States](#). *New England Journal of Medicine*.
8. Simon, T. R., Swann, A. C., Powell, K. E., et al. (2002). [Characteristics of Impulsive Suicide Attempts and Attempters](#). *Suicide and Life-Threatening Behavior*.
9. Steelesmith, D. L., Fontanella, C. A., Campo, J. V., et al. (2019). [Contextual Factors Associated With County-Level Suicide Rates in the United States, 1999 to 2016](#). *JAMA Network Open*.
10. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2018). [Suicide rising across the US: More than a mental health concern](#).
11. Blair-West, G. W., Cantor, C. H., Mellsop, G. W., et al. (1999). [Lifetime suicide risk in major depression: sex and age determinants](#). *Journal of Affective Disorders*.
12. Palmer, B. A., Pankratz, V. S., & Bostwick, J. M. (2005). [The Lifetime Risk of Suicide in Schizophrenia: a reexamination](#). *Archives of General Psychiatry*.
13. Goodwin, F. K., Fireman, B., Simon, G. E., et al. (2003). [Suicide Risk in Bipolar Disorder During Treatment With Lithium and Divalproex](#). *JAMA*.
14. Swanson, J. W., Easter, M. M., Robertson, A. G., et al. (2016). [Gun Violence, Mental Illness, And Laws That Prohibit Gun Possession: Evidence From Two Florida Counties](#). *Health Affairs*.
15. Hooley, J. M., Franklin, J. C., & Nock, M. K. (2014). [Chronic Pain and Suicide: Understanding the Association](#). *Current Pain and Headache Reports*.

16. Wilcox, H. C., Conner, K. R., & Caine, E. D. (2004). [Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies](#). *Drug and Alcohol Dependence*.
17. Conner, K. R., Huguet, N., Caetano, R., et al. (2014). [Acute use of alcohol and methods of suicide in a US national sample](#). *American Journal of Public Health*.
18. US Department of Veterans Affairs, Office of Mental Health and Suicide Prevention. (2020, November). [2020 National Veteran Suicide Prevention Annual Report](#).
19. Azrael, D., Hepburn, L., Hemenway, D., et al. (2017). [The Stock and Flow of US Firearms: Results from the 2015 National Firearms Survey](#). *RSF: The Russell Sage Found Journal of the Social Sciences*.
20. Simonetti, J. A., Azrael, D., Rowhani-Rahbar, A., et al. (2018). [Firearm Storage Practices Among American Veterans](#). *American Journal of Preventive Medicine*.
21. Gun Control Act of 1968, Pub. L. 90-618, 82 Stat. 1213, codified as amended at 18 U.S.C. § 922(b)(1)
22. Curtin, S. C., & Heron, M. (2019, October). [Death Rates Due to Suicide and Homicide Among Persons Aged 10–24: United States, 2000–2017](#).
23. Schnitzer, P. G., Dykstra, H. K., Trigylidas, T. E., & Lichenstein, R. (2019). [Firearm suicide among youth in the United States, 2004-2015](#). *Journal of Behavioral Medicine*.
24. Johnson, R. M., Barber, C., Azrael, D., et al. (2010). [Who are the Owners of Firearms Used in Adolescent Suicides?](#) *Suicide and Life-Threatening Behavior*.
25. Scott, J., Azrael, D., & Miller, M. (2018). [Firearm storage in homes with children with self-harm risk factors](#). *Pediatrics*.
26. Naganathan, S., & Mueller, K. (2019). [Physician Documentation of Access to Firearms in Suicidal Patients in the Emergency Department](#). *Western Journal of Emergency Medicine*.
27. Price, J. H., Kinnison, A., Dake, J. A., et al. (2007). [Psychiatrists' Practices and Perceptions Regarding Anticipatory Guidance on Firearms](#). *American Journal of Preventive Medicine*.