Opioid Use and Suicide Risk



Issue

People with severe or chronic pain are at increased risk for suicide.^{1,2,3} But prescription opioids and their illicit relatives confer their own suicide risk and can be used to attempt suicide; they also pose the risk of unintentional overdose.^{4,5,6,7,8,9,10}

Key Findings

Studies have found that suicides involving opioids constituted 4.3% of all suicides in 2014 and were involved in more than 40% of suicide and overdose deaths in 2017.^{4,5} Even then, they are likely underreported.^{11,12}

With the increased availability of both prescription and illicit opioids, suicides involving them have increased correspondingly in the general population.^{5,13} Researchers found both past-year and weekly or more frequent prescription opioid misuse to be associated with suicidal ideation, suicide planning, and suicide attempts.^{14,15} It also appears that one's risk for suicide increases as the daily dosage of opioids increases.⁷

Risk Factors

People with opioid use disorder (OUD) are 13 times more likely than those who do not have the disorder to die by suicide, ¹⁰ and Veterans Health Administration (VHA) patients are seven times more likely than commercially insured patients to be diagnosed with OUD. ¹⁶ Although the number of male Veterans with OUD who die by suicide is greater, the suicide rate among female Veterans with OUD is greater. ¹⁷

People on a prescription opioid regimen, as well as those with OUD, who have co-occurring psychiatric conditions are at increased risk for suicide. Researchers have found an association between suicide attempts and depression, anxiety disorders, and personality disorders among opioid-dependent individuals.¹⁸

A VHA study showed Veterans were at increased risk of either unintentional overdose or suicide death within the first six months of either starting or stopping prescription opioid therapy.¹⁹ The risk was more pronounced in Veterans with a mental health or substance use diagnosis. The all-cause mortality risk is highest in the first four weeks after treatment begins and ends.²⁰ Increased risk for suicidal ideation and behavior among Veterans continues in the 12 months after discontinuation of long-term prescription opioid treatment.²¹

Implications

People with chronic pain and those with OUD are overrepresented in the Veteran population, and they are at increased risk for suicide. It is important to distinguish between intentional and unintentional opioid overdoses, because they are distinct events with unique causes, correlates, outcomes, and prevention strategies. 18,19,22

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Ways You Can Help

- Assess all Veterans who use opioids to determine their suicide risk and assess all Veterans at risk for suicide to
 determine whether they use opioids. Include safe storage of opioid medications in discussions about means safety.
 Direct Veterans to VHA's opioid safety information: www.va.gov/painmanagement/opioid_safety/index.asp.
- Familiarize yourself with the contents of the Opioid Safety Initiative Toolkit: www.va.gov/painmanagement/ opioid_safety_initiative_osi.asp.
- VA staff can use the STORM (Stratification Tool for Opioid Risk Mitigation) dashboard to make informed decisions about Veterans' care.
- Provide additional support, treatment, and wraparound services during transition periods of starting or stopping
 prescription opioid therapy for pain, and when starting or stopping medication for OUD.
- Encourage medication-assisted treatment for Veterans who either have been diagnosed with or are at risk for OUD.^{23,24} Treatment with buprenorphine may be especially beneficial in reducing suicide risk among Veterans with depression, including treatment-resistant depression.^{24,25}
- As appropriate, educate Veterans and family members about the risk of opioid overdose and provide naloxone for the prevention of opioid overdose deaths.

There is no single cause of suicide. It is often the result of a complex interaction of risk and protective factors at the individual, interpersonal, community, and societal levels. To prevent Veteran suicide, we must maximize protective factors and minimize risk factors at all of these levels.

References

- Ilgen, M. A., K. Zivin, K. L. Austin, A. S. B. Bohnert, E. K. Czyz, M. Valenstein, and A. M. Kilbourne. 2010. Severe pain predicts greater likelihood of subsequent suicide. Suicide & Life-Threatening Behavior 40, no. 6:597–608.
- 2 Petrosky, E., R. Harpaz, K. A. Fowler, M. K. Bohm, C. G. Helmick, K. Yuan, and C. J. Betz. 2018. Chronic pain among suicide decedents, 2003 to 2014: Findings from the National Violent Death Reporting System. *Annals of Internal Medicine* 169:448–55.
- 3 Tang, N. K., and C. Crane. 2006. Suicidality in chronic pain: A review of the prevalence, risk factors and psychological links. Psychological Medicine 36, no. 5:575–86.
- 4 Bohnert, A. S., and M. A. Ilgen. 2019. Understanding Links among opioid use, overdose, and suicide. New England Journal of Medicine 380, no. 1:71–9.
- 5 Braden, J. B., M. J. Edlund, and M. D. Sullivan. 2017. Suicide deaths with opioid poisoning in the United States: 1999–2014. American Journal of Public Health 107, no. 3:421–26.
- 6 Fowler, K. A., S. P. Jack, B. H. Lyons, C. J. Betz, and E. Petrosky. 2018. Surveillance for violent deaths—National Violent Death Reporting System, 18 states, 2014. MMWR Surveillance
- 7 Ilgen, M. A., A. S. Bohnert, D. Ganoczy, M. J. Bair, J. F. McCarthy, and F. C. Blow. 2016. Opioid dose and risk of suicide. *Pain* 157, no. 5:1079.
- 8 Kuramoto, S. J., H. D. Chilcoat, J. Ko, and S. S. Martins. 2012. Suicidal ideation and suicide attempt across stages of nonmedical prescription opioid use and presence of prescription opioid disorders among US adults. *Journal of Studies on Alcohol and Drugs* 73, no. 2:178–84.
- 9 Marchand, K., H. Palis, J. Fikowski, S. Harrison, P. Spittal, M. T. Schechter, and E. Oviedo-Joekes. 2017. The role of gender in suicidal ideation among long-term opioid users. *The Canadian Journal of Psychiatry* 62, no. 7:465–72.
- 10 Wilcox, H. C., K. R. Conner, and E. D. Caine. 2004. Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies. *Drug and Alcohol Dependence* 76:S11–19.
- 11 Rockett, I. R., E. D. Caine, H. S. Connery, et al. 2018. Discerning suicide in drug intoxication deaths: Paucity and primacy of suicide notes and psychiatric history. PLOS One 13, no. 1.
- 12 Ruhm, C. J. 2016. Drug poisoning deaths in the United States, 1999–2012: A statistical adjustment analysis. *Population Health Metrics* 14, no. 1:2.
- 13 Davis, J. M., V. B. Searles, S. G. Severtson, R. C. Dart, and B. Bucher-Bartelson. 2014. Seasonal variation in suicidal behavior with prescription opioid medication. *Journal of Affective Disorders* 158:30–6.

- 14 Ashrafioun, L., T. M. Bishop, K. R. Conner, and W. R. Pigeon. 2017. Frequency of prescription opioid misuse and suicidal ideation, planning, and attempts. *Journal of Psychiatric Research* 92:1–7.
- Bohnert, A. S., M. Valenstein, M. J. Bair, D. Ganoczy, J. F. McCarthy, M. A. Ilgen, and F. C. Blow. 2011. Association between opioid prescribing patterns and opioid overdose-related deaths. JAMA 305, no. 13:1315–21.
- 16 Baser, O., L. Xie, J. Mardekian, D. Schaaf, L. Wang, and A. V. Joshi. 2014. Prevalence of diagnosed opioid abuse and its economic burden in the Veterans Health Administration. *Pain Practice* 14, no. 5:437–45.
- 17 Bohnert, K. M., M. A. Ilgen, S. Louzon, J. F. McCarthy, and I. R. Katz. 2017. Substance use disorders and the risk of suicide mortality among men and women in the US Veterans Health Administration. Addiction 112, no. 7:1193–201.
- 18 Maloney, E., L. Degenhardt, S. Darke, and E. C. Nelson. 2009. Are non-fatal opioid overdoses misclassified suicide attempts? Comparing the associated correlates. Addictive Behaviors 34, no. 9:723.
- 19 Trafton, J. A. 2018. Risk of overdose or suicide death in the context of an opioid analgesic prescribing episode: An observational evaluation [PowerPoint slides].
- 20 Sordo, L., G. Barrio, M. J. Bravo, et al. 2017. Mortality risk during and after opioid substitution treatment: Systematic review and meta-analysis of cohort studies. The BMJ 357:j1550.
- 21 Demidenko, M. I., S. K. Dobscha, B. J. Morasco, T. H. Meath, M. A. Ilgen, and T. I. Lovejoy. 2017. Suicidal ideation and suicidal self-directed violence following clinician-initiated prescription opioid discontinuation among long-term opioid users. General Hospital Psychiatry 47:29–35.
- 22 Britton, P. C., A. S. Bohnert, J. D. Wines Jr, and K. R. Conner. 2012. A procedure that differentiates unintentional from intentional overdose in opioid abusers. *Addictive Behaviors* 37, no. 1:127–30.
- 23 Molero, Y., J. Zetterqvist, I. A. Binswanger, C. Hellner, H. Larsson, and S. Fazel. 2018. Medications for alcohol and opioid use disorders and risk of suicidal behavior, accidental overdoses, and crime. American Journal of Psychiatry 175, no. 10:970–78.
- 24 Serafini, G., G. Adavastro, G. Canepa, et al. 2018. The efficacy of buprenorphine in major depression, treatment-resistant depression and suicidal behavior: A systematic review. *International Journal of Molecular Sciences* 19, no. 8:2410.
- Coplan, P. M., N. E. Sessler, V. Harikrishnan, R. Singh, and C. Perkel. 2017. Comparison of abuse, suspected suicidal intent, and fatalities related to the 7-day buprenorphine transdermal patch versus other opioid analgesics in the National Poison Data System. *Postgraduate Medicine* 129, no. 1:55–61.

