Most people in the United States who attempt suicide do so by drug poisoning, and, as the study by Miller and colleagues documents, most (ie, 98%) do not die. However, drugs are the third leading method of suicide, having claimed 5141 lives in 2017. Two percent of a couple hundred thousand attempts adds up.

Clearly some drugs are more lethal than others, and the research by Miller et al helps identify which are of particular concern. Because many attempts are undertaken hastily (in a 2009 study, 48% of people hospitalized after an attempt said they acted within 10 minutes of thinking about making that attempt), the lethality of the means readily at hand can mean the difference between a trip to the emergency department and death. This is why, when treating at-risk patients with guns at home (given that guns are the leading method of suicide death, having claimed 23 854 lives in 2017), the clinician can feel comfortable suggesting that they store their guns inaccessibly until they recover. Even if they are not thwarted from an attempt, virtually anything they substitute for a gun will be less likely to kill. What about medications? Because most nondrug methods are more likely to kill than drugs, making all medications inaccessible might be unwise. While people can do without a lot of the bottles that crowd their medicine cabinets, some medications are necessary.

A logical conclusion supported by the article by Miller et al is to advise families of at-risk patients to keep on hand only the quantity of needed medications that, even if taken together, will do no serious harm. Measures of a drug’s relative toxic effects, like the median lethal dose, are available, but most overdose attempts involve more than 1 drug, often combined with alcohol, and toxic effects can be higher when drugs are taken in combination. Lethality is multidimensional. It is a function of the patient’s physical characteristics (eg, weight), the quantity and type of drugs taken, their toxic effects when combined, the speed and reversibility of those toxic effects, and whether and when emergency care is delivered. Therefore, case fatality is far more complex to measure for specific drug classes than, for example, guns or jumps.

To my knowledge, the study by Miller et al is the first to use a novel method to tease out which drug classes increase the risk that an overdose will prove fatal after controlling for patient demographic characteristics and other drug classes ingested. They report that if substances taken in overdose included opioids or barbiturates, the risk of a fatal outcome was increased 5-fold and 4-fold, respectively. In some models, relative risk was also increased for insulin and other diabetes drugs, calcium channel blockers, and antidepressants. Their research did not examine the extent to which these relative risks are a function of potential moderating factors, such as which drugs happen to be on hand and in what quantity, patient behavior (eg, quantity taken, whether the patient purposely selected the drugs vs took what was at hand, whether they aborted the attempt), circumstances (eg, whether someone summoned help), or the drug’s actual toxic effects (eg, whether the drug contributed chemically to death). Future research is needed in these areas. Research and professional education could also help elucidate relative toxic effects within given drug classes to guide safer prescribing.

Suicide rates, regardless of method, have increased steadily in the United States since 2008, at a time when rates in many parts of the world have decreased. As such, we are in urgent need of research that will help clinicians deliver care that both reduces the distress that leads to an attempt and reduces fatal outcomes. Health insurance plans that require certain drugs be dispensed in 90-day allotments should allow exceptions when suicide is a concern. Physicians can help to protect patients who are struggling emotionally by helping to ensure they find the right care for their distress.
(often a trial-and-error process); talking with them about techniques to manage spikes in suicidal impulses, should they occur; recommending they store their guns away from home or otherwise inaccessibly, clear their medicine cabinets of unneeded medications, and keep only small quantities of necessary medications on hand, and discussing options such as locked electronic pill dispensers, weekly refills, or a family member serving as medication dispenser if they are at high risk and must take medications that are dangerous even in small quantities.

The good news is that most people who become suicidal do not attempt, most people who attempt do not die, and, 90% or more of those who attempt and survive—even very serious attempts—do not later take their lives.7 Becoming suicidal is not a death sentence. In their roles as prescribers, healers, and advisors, physicians can help to reduce both the likelihood of an attempt and, with the help of research like that by Miller et al,2 the risk that an attempt will prove fatal.

REFERENCES