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## **STATEMENT OF FINANCIAL DISCLOSURE**

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## **Discussing Firearms with Emergency Department Patients: Why, Who, Where, When, and What**

*There are few more polarizing words in the United States than “firearms.” Even the mention of the word immediately evokes emotions, either pro or con. This article is not about the firearm debate. It is about the safety of our patients. As physicians, we provide information to our patients about how to safely use automobiles (seat belts) and when not to use them (impaired drivers). This article describes how to have that difficult discussion about firearms, and when to take extra steps to safeguard the guns we own.*

— Sandra M. Schneider, MD, Editor

## **Introduction**

In the United States, on average 92 people die from firearms every day.<sup>1</sup> In our heterogeneous population, the question of how to prevent firearm deaths remains a politically charged and contentious one. Approximately one-third of American adults report owning at least one firearm, and ownership rates vary among states from approximately 5% to more than 60%;<sup>2</sup> similar rates of ownership (15-40%) are reported by physicians.<sup>3,4</sup> The Second Amendment to the U.S. Constitution states “the right of the People to keep and bear arms shall not be infringed.” In light of recent mass shootings, there are some who call for limits on firearm ownership and usage.

The larger political debate has considered the role of healthcare providers — including emergency physicians (EPs) — in preventing firearm injuries or deaths. The impact of firearm safety screening and counseling by providers remains unclear, but firearm safety screening and counseling may encourage safer home firearm storage and may reduce the risk of death.<sup>5</sup> Screening typically involves asking “at-risk” patients — those deemed to be at higher than average risk for firearm injury — about their access to firearms. Counseling typically involves the physician or other healthcare professional discussing ways to mitigate risk of firearm injury (such as locked storage or temporary storage out of the home) with the patient and his or her family. In most states and most scenarios, firearm screening and counseling does not mean the EP contacts law enforcement to remove or confiscate firearms. Although some states have considered or enacted laws attempting to limit provider discussions, there is currently no federal or state prohibition on providers asking about firearms when it is relevant to the health or safety of the patient or others.<sup>6</sup>

Generally, the three categories when discussions about firearm access could

## EXECUTIVE SUMMARY

- Emergency providers have an opportunity to educate patients on ways to reduce the risk of firearm injury or death.
- Suicide accounts for the largest proportion of firearm deaths. Those at highest risk are older white men. Patients who screen positive for suicidality should be asked about their access to firearms, and a safety plan should be established (safe storage or, if necessary, temporarily housing the gun outside the home).
- The risk of death to a victim of intimate partner violence is significantly higher when there is access to a firearm.
- Providers should discuss safe storage of firearms in a non-judgmental way, similar to the discussions around other safety issues such as bicycle helmets, child safety locks, and impaired driving.

be appropriate in the emergency department (ED) setting include: risk of intentional harm to self (i.e., risk of suicide); risk of intentional harm by or to others (i.e., homicide, including intimate partner and other interpersonal violence); and risk of unintentional harm to self or others (i.e., “accidental” injury in a child or cognitively impaired person).

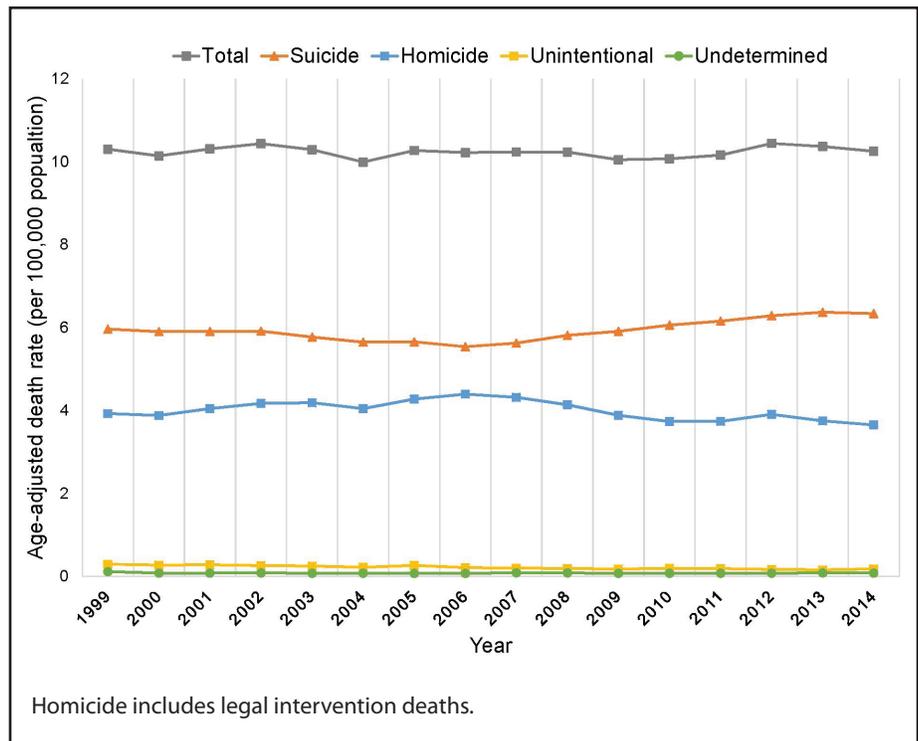
This article explores questions around physician firearm safety counseling — including why EPs might do it, who might benefit, where and when to consider it, and what such counseling should include (along with what resources exist for EPs and for patients). We conclude with a discussion of relevant legal and ethical issues.

### Why?

EPs should consider screening and counseling at-risk patients about firearm access both because of the incidence of firearm injury and death in the United States and because physicians, in collaboration with patients and their families, may prevent some of these injuries and deaths.

In 2014, the United States had 33,599 firearm deaths, and U.S. EDs treated 81,034 non-fatal firearm injuries.<sup>1</sup> Two-thirds of firearm deaths were due to suicide (21,334 deaths in 2014, representing 51% of all suicides that year); the remainder were homicides (11,409 deaths, peer and partner violence, representing 70% of all homicides), unintentional or “accidental” (586 deaths), and “undetermined intent” (270 deaths; *see Figure 1*).<sup>7</sup> The rate of firearm homicide has decreased slightly during the past few decades, but the overall rate of firearm death remains largely unchanged because suicide

**Figure 1. Age-adjusted Firearm Death Rates, by Gender and Race/Ethnicity (US, 1999-2014)<sup>1</sup>**



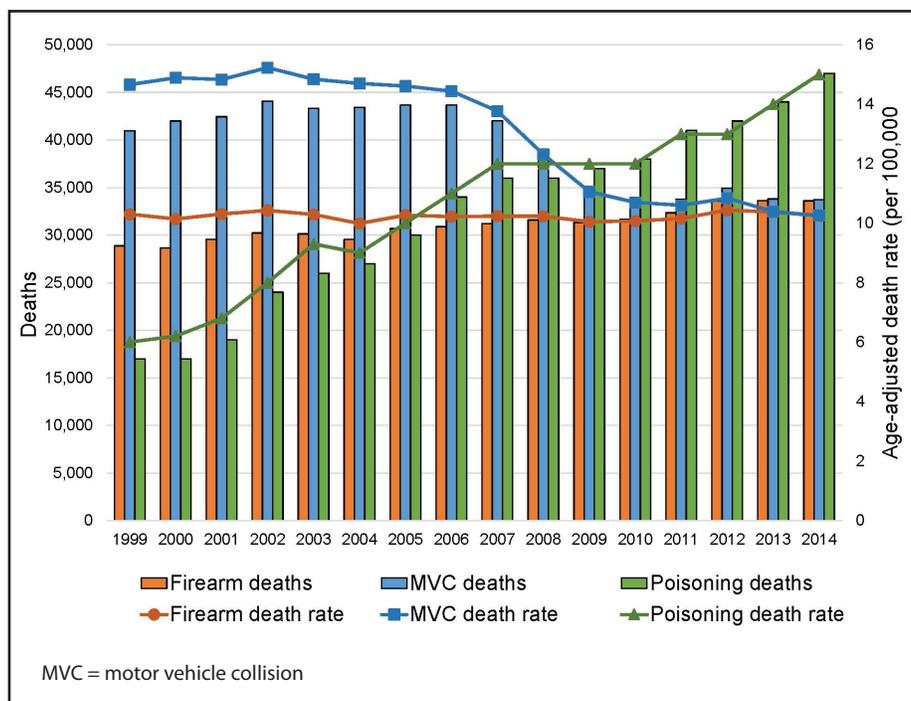
rates have increased.<sup>8</sup> (*See Figure 1*.) Only poisonings (including the much-discussed opioid epidemic) and motor vehicle collisions were responsible for a similar injury mortality burden in 2014.<sup>1</sup> (*See Figure 2*.)

Although non-fatal firearm injuries are more common than fatal injuries, firearm injuries are more likely to be lethal than injuries from other mechanisms.<sup>9,10</sup> For instance, a suicide attempt with a firearm has a case fatality rate of 90%, compared to 10% for all other methods combined.<sup>11-13</sup> In 2014, for every 100 firearm assaults presenting to the ED for care, there were 19 deaths; this rate is higher than for other penetrating trauma (1.3 deaths/100

ED visits) or blunt force assault (< 1 death/10,000 ED visits).<sup>1</sup> Among youth ≤ 19 years old, those injured by firearms have significantly higher rates of serious injury, major surgery, and in-hospital mortality compared to other mechanisms of injury.<sup>14</sup>

Non-fatal firearm-related injuries also have significant negative consequences for patients, families, and society. They are associated with high rates of physical disability and mental illness, among both victims and bystanders.<sup>15-19</sup> They increase risk of future violent victimization and death, crime perpetration, and recurrent firearm injuries.<sup>20-22</sup> They are expensive to society: Approximately \$1.2 billion is spent on

**Figure 2. Deaths, by Mechanism and Year (US, 1999-2014)<sup>1</sup>**



firearm-injury-related acute medical care each year, with another \$47 billion from work-loss costs.<sup>10,23</sup>

In addition to the large burden of injury from firearm suicide, peer violence, partner violence, and unintentional injuries, concerns over mass shootings have focused attention on firearm screening and counseling in the ED. Increasingly, EPs are being asked to evaluate patients for risk of harm against self or others, which includes risk of harm through firearms. Psychiatric evaluations are the most rapidly increasing category of ED visits.<sup>24</sup> ED visits by children for mental health evaluations are increasing at a faster rate than visits for other chronic care conditions.<sup>25</sup> In addition, many patients with mental health problems present in the ED with non-psychiatric chief complaints. Although the vast majority of patients with acute mental illness are not violent,<sup>26</sup> EPs must consider how best to evaluate, care for, and arrange follow-up for patients who are at risk of suicide or who pose a serious danger of violence to others.

Despite the attention paid to mass violence, it is relatively rare, with only 298 cases and 1,479 victims since 2006,<sup>27</sup> and 154 hospital-based

shootings over a decade.<sup>28</sup> Nonetheless, so-called “active shooter incidents” are increasing in frequency, and firearms are used in more than three-quarters of mass killings (incidents during which four or more people are killed).<sup>27</sup> As EPs are the front line of treatment for mass shootings in our communities and our hospitals, we are dedicating increasing time and resources to preparing for these tragic scenarios.<sup>29,30</sup> Additionally, prior legal decisions suggest that we, as physicians, may be held responsible if a patient murders someone after discharge from our care.<sup>31</sup>

Therefore, it is critical for us to understand who, where, and when to screen for firearm access — and to know what counseling is appropriate for a positive answer.

Physician screening and counseling can be effective in reducing multiple forms of injury,<sup>32-35</sup> including the risk of firearm injury and death. As will be discussed below, evidence exists that physician-led interventions increase rates of safe storage of firearms,<sup>36</sup> decrease weapon carriage among victims of violent assault,<sup>37</sup> and decrease access to firearms among suicidal patients.<sup>38,39</sup>

Although EPs can help prevent firearm injury,<sup>3,40</sup> although the American

College of Emergency Physicians encourages firearm injury prevention,<sup>41</sup> and although a growing body of evidence supports the importance of screening and counseling,<sup>42</sup> only a minority of emergency physicians currently screen high-risk patients for firearm injury risk.<sup>40,43</sup> (Other specialties, including pediatricians, family practitioners, and psychiatrists, have a similar low rate of screening.<sup>44-46</sup>)

## Who?

Firearm injury occurs across the lifespan and across demographic groups, with variation in injury rates and patterns among states. (See Figure 3.) Young African-American males have the highest mortality rate from firearm injury.<sup>10</sup> In absolute terms, however, most firearm deaths occur among older white men, with suicide being the leading cause of firearm death.<sup>10,47</sup> (See Figures 4 and 5.)

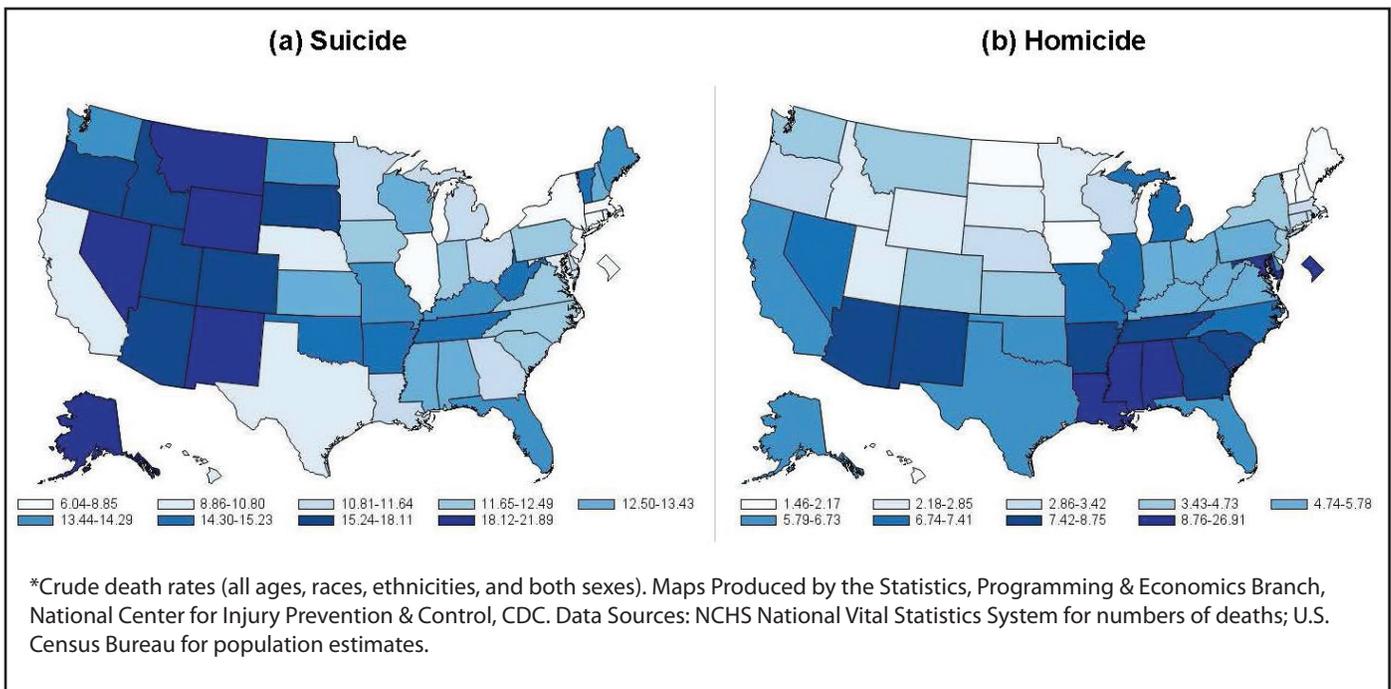
Firearm access is a major risk factor for death from suicide, partner violence, and homicide across the life cycle, and access to unsecured firearms increases youth risk of unintentional death. Longitudinal,<sup>48</sup> case-control,<sup>49-52</sup> and cross-sectional studies<sup>53-55</sup> show that personal ownership or household exposure to firearms is a risk factor for death. Indeed, firearm access in the home is one of the strongest and most well-established risk factors for suicide for all household members.<sup>56-59</sup> Approximately one-third of Americans report owning a firearm, with higher rates of ownership in rural, Southern, and Western states.<sup>60-62</sup>

Of course, most Americans who own or have access to a firearm will not be injured. And in some communities, most ED patients, EPs, and their staff likely own firearms. Therefore, it is important to consider what demographic characteristics, medical history, or other risk factors put a patient at higher risk of firearm injury or death. (See Table 1.)

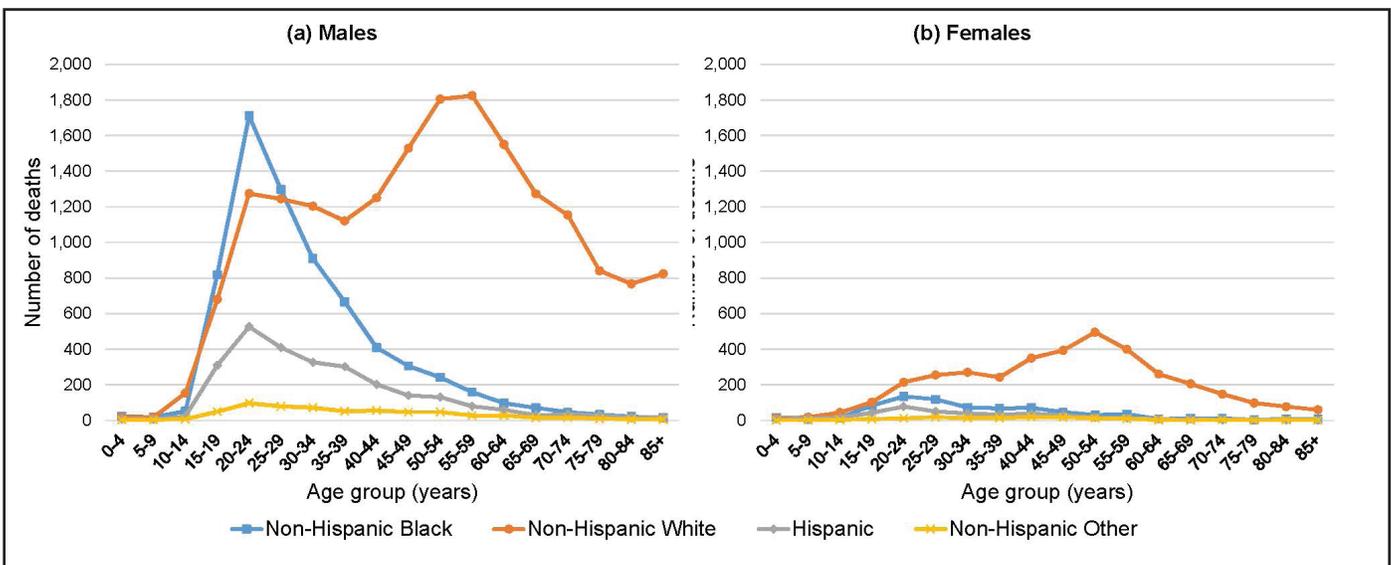
### Risk of Intentional Harm to Self

Firearms account for more than 50% of the 21,000 yearly suicide deaths in the United States.<sup>1</sup> Firearm suicide rates are highest in the intermountain and rural states, for both adults and for youth (see Figure 3),<sup>10</sup> with a strong and consistent

**Figure 3. Firearm Death Rates,\* by State, for (a) Suicide and (b) Homicide per 100,000 Population (US, 2004-2010)<sup>1</sup>**



**Figure 4. Absolute Number of Firearm Deaths, by Age and Race/Ethnicity, for (a) Males and (b) Females (US, 2014)<sup>1</sup>**



correlation between home firearm access and risk of death by suicide.<sup>63</sup> Among youth who die by firearm suicide, 82% used a family member's gun.<sup>64</sup>

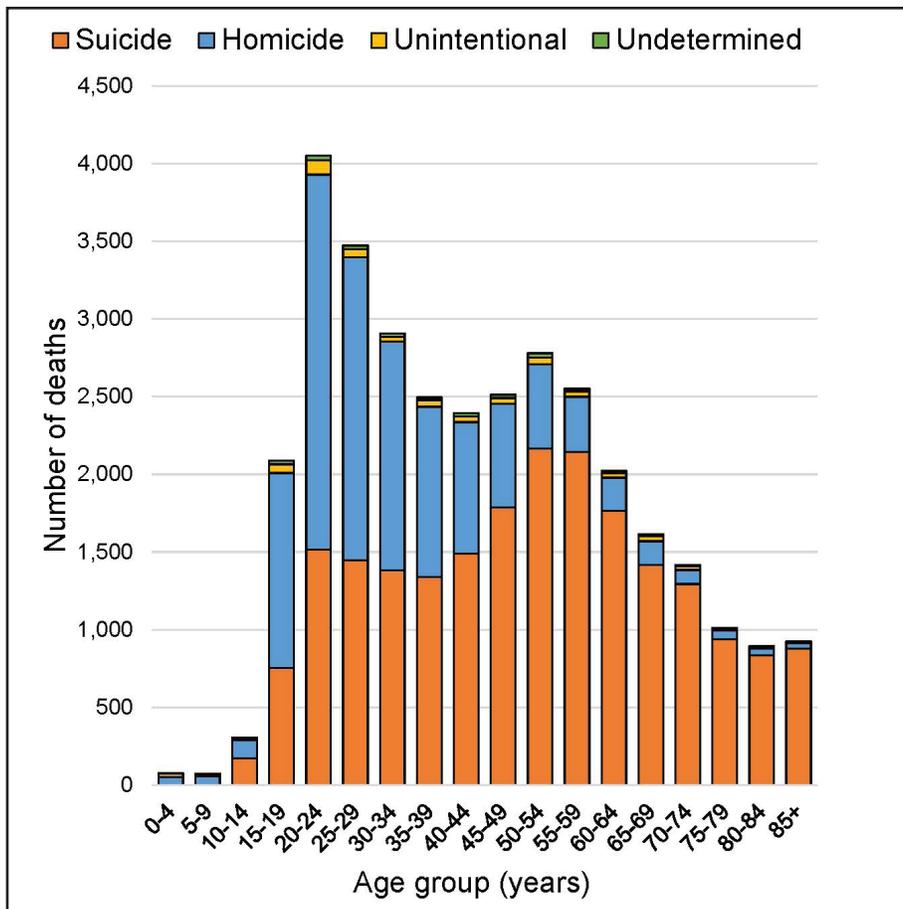
Reducing access to firearms (and other highly lethal methods) for those patients at high risk for suicide can save lives<sup>63,65</sup> because: many suicide attempts are impulsive,<sup>66</sup> with only minutes

between decision and action; attempts often occur within a short-lived crisis,<sup>67</sup> and the lethality of the method affects chance of survival, with up to 90% of firearm attempts resulting in death.<sup>68</sup> Of note, of those who survive a suicide attempt, less than 10% go on to eventually die from suicide.<sup>69-71</sup> Therefore, reducing access to lethal means may

reduce risk of suicide death.<sup>65</sup>

Risk factors for suicide are both static and dynamic, with variable interactions and significance for different individuals. In the United States, groups of particular concern for suicide include middle-aged and older adults, particularly white men and Native Americans. (See Figures 4 and 5.) A

**Figure 5. Firearm Deaths, by Age and Intent (US, 2014)<sup>1</sup>**



patient expresses suicidal ideation or intent or is in the ED for a suicide attempt. But some patients, including those with the risk factors above, may not reveal their thoughts of suicide unless directly asked. It is important to remember that asking about suicidal thoughts — or about firearms as a suicide method — will not induce patients to attempt suicide.<sup>73-75</sup>

**Risk of Intentional Harm By or To Others. Assault.** Although only approximately one-third of firearm deaths are due to homicide, its impact is disproportionate in certain communities and demographic groups. Firearm homicide is the leading cause of death for black males ages 15-34 years. Black and Hispanic males have the highest relative firearm homicide rates across their lifespan (compared with females, or with males of other races and ethnicities; *Figure 4*). Firearm injury tends to concentrate in urban areas, particularly those marked by poverty, high availability of alcohol, and high levels of vandalism.<sup>76-79</sup> However, most firearm injuries occur outside of these geographic clusters.<sup>80</sup> (*See Figure 3.*)

Although a history of severe mental illness doubles the risk of perpetrating violence, it does so primarily in the context of co-existing substance use or misuse, including alcohol misuse.<sup>81,82</sup> Indeed, substance use is an even more significant risk factor, both on a lifetime basis (e.g., having a history of substance misuse, dependence, or addiction) and on a moment-by-moment basis (e.g., most assault perpetrators and victims report using substances in the time period immediately prior to the injury).<sup>83-85</sup>

Having an ED visit for an assault also increases the chances of future assault-related injury, and particularly firearm-related injury. Hospitalization for assault injuries also seems to be associated with access to firearms.<sup>86</sup> A Washington study showed that a firearm-related hospitalization increased the risk of future firearm death by more than 300%.<sup>19</sup> A two-year prospective cohort study showed that high-risk youth visiting urban EDs for assault injuries had a 40% higher risk of subsequent firearm violence (aggression or victimization) versus the comparison group.<sup>87</sup>

**Table 1. Who To Ask**

Category of Risk of Firearm Injury or Death	Sample Patient Populations
Intentional harm to self	<ul style="list-style-type: none"> <li>• Those with suicidal thoughts or behavior</li> <li>• Those with a history of mental illness</li> <li>• Adolescents</li> <li>• Those with alcohol or substance abuse</li> </ul>
Intentional harm by or to others	<ul style="list-style-type: none"> <li>• Victims of assault</li> <li>• Victims of intimate partner (domestic) violence</li> <li>• Those with homicidal thoughts or behavior</li> <li>• Those with alcohol or substance abuse</li> </ul>
Unintentional harm to self	<ul style="list-style-type: none"> <li>• Children (and their parents)</li> <li>• Those with cognitive impairment</li> </ul>

history of mental illness, particularly depression or prior suicide attempt, is a strong risk factor.<sup>72</sup> Additional risk factors for firearm suicide for EPs to consider include: alcohol or substance abuse, adolescence, older age, chronic

illness, chronic pain, and social stressors including recent incarceration and being separated, divorced, or widowed (rather than married).<sup>72</sup>

The most obvious cases for firearm screening in the ED are when an ED

In the ED, the most important indication for screening for risk of peer firearm injury is a prior history of violent injury, whether blunt or penetrating, and a history of or current substance or alcohol use.

#### *Intimate Partner Violence (IPV).*

Women who are killed are most likely to die at the hands of an intimate partner (“domestic violence”) and are most likely to be killed by a gun. More than half of female homicides are perpetrated by partners, and more than half of these involve a firearm.<sup>88</sup> A firearm in the home increases a woman’s risk of death five-fold,<sup>89</sup> and is such an important risk factor that a partner’s access to a firearm is a question in the well-validated “Danger Assessment” for risk of death from partner violence (<https://www.dangerassessment.org/>). The perpetrators of non-fatal firearm injuries of women are also most likely to be romantic partners.<sup>90</sup>

In the ED, any patient with a history of partner violence should be screened for firearm access, both on the part of the partner and the patient.

*Mass Violence.* Due to the small number of mass violence firearm deaths, and lack of research, it is difficult to clearly identify risk factors. Some studies suggest that as many as one-quarter of perpetrators of homicide-suicide had been seen by a physician within a month of the crime,<sup>91</sup> and high-profile mass shooters may have been evaluated in EDs prior to their crime.<sup>92</sup> Some forensic psychologists have developed so-called “behavioral typologies” to help identify eventual perpetrators of mass violence.<sup>93</sup> The combination of access to means (including high-powered firearms) in combination with the presence of impulsive anger, paranoia, and delusions of persecution may be enough to warrant a higher level of concern. However, only an extremely small proportion of people with these behavioral risk factors and access to firearms will actually commit acts of mass violence.<sup>94,95</sup>

Further research and guidance in this area is needed. For the time being, best practice would suggest that an EP should consider screening any patient with active psychosis or paranoid delusions for firearm access.

**Risk of Unintentional Harm to Self or Others.** Most unintentional, or “accidental,” firearm injuries and deaths occur among youth (ages 2-24 years); most unintentional deaths are due to being unintentionally shot by a friend or family member, and rarely due to being shot by an adult.<sup>96</sup> Living in a household with a firearm that is stored loaded, unlocked, and with easy access to ammunition has repeatedly been shown to be the strongest risk factor for unintentional firearm injury.<sup>57,97</sup>

Although screening all parents of pediatric patients for firearm access is not currently feasible in the ED, EPs may consider discussing firearm safety along with other safety information when time permits.

## Where?

EDs are an important but underutilized setting for preventing injury and death, including those from firearms. EDs provide access to traditionally hard-to-reach populations, including uninsured or underinsured patients, those without a primary care physician, and youth not regularly attending school.<sup>98,99</sup> The ED is already encouraged to screen for suicidality and for partner violence in all high-risk patients.<sup>100,101</sup>

Risk factors for all types of firearm injury — suicidality, intimate partner violence, and assault victimization — are more common among ED patients than in the general American population.<sup>102</sup> Up to 6-10% of ED patients have had recent suicidal thoughts,<sup>103-105</sup> and many people who die by suicide are seen by a healthcare provider within one year of their death (more than one-third are seen within one week of death).<sup>106,107</sup> Among all ED patients, 20-40% report having been a victim of intimate partner violence,<sup>108,109</sup> and almost 40% of women who are seen in the ED for an assault were injured by their partner.<sup>110,111</sup> Approximately 30-50% of a random sample of ED patients report past-year physical assaults by a peer.<sup>112,113</sup>

However, most EPs do not ask about firearm ownership, even among the highest risk patients. For example, according to two studies, firearm ownership or access is documented in 0-3%

of pediatric ED psychiatric evaluations.<sup>114,115</sup> In another recent study, 45% of adult suicidal patients who were discharged home had no medical record documentation of questioning about access to firearms or other lethal means; yet 13% of these patients reported to study staff that they had firearm access at home.<sup>43</sup>

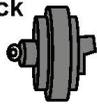
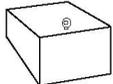
There are many reasons why EPs may not ask high-risk patients about firearms, including lack of time,<sup>116</sup> concerns about patients’ willingness to answer,<sup>3</sup> and lack of physician comfort with the topic.<sup>117</sup> EPs may believe that asking about firearm access should or will be done by a psychiatrist or other mental health professional,<sup>118</sup> but psychiatrists and psychologists appear equally unlikely to ask patients about firearm access.<sup>46,119</sup>

Some physicians fear that patients will be upset by being asked about firearms, but there is little evidence that patients are offended by respectful questioning about firearms and other personal issues.<sup>42,120</sup> Interestingly, physicians who own firearms may be particularly likely to screen and counsel on firearm safety.<sup>121</sup> These physicians also may be more likely to be perceived by patients as trustworthy or as experts in firearm discussions.<sup>121</sup>

Unlike with discussions of motorcycle helmet use or child safety locks, physicians fear having a similar discussion about firearms. The only existing law that limits physician questions about firearm discussions is in Florida. This law states that healthcare providers “should refrain” from asking patients about firearms; however, it allows exceptions when relevant “to the patient’s medical care or safety, or the safety of others.”<sup>122</sup> Laws in Montana, Missouri, and Minnesota also prohibit some aspects of recording or collecting information about firearms, but not in emergency situations.<sup>123-126</sup> Multiple medical organizations are currently challenging these laws as causing undue interference in the doctor-patient relationship.<sup>127,128</sup> However, it is important for EPs to know that it is currently permissible to ask about a patient’s firearm access in the context of an acute medical concern, even in these states.

As with other sensitive topics, these

**Table 2. Firearm Safe Storage Options**

	Option	Description	Notes
Retain Possession	 Cable lock	Key or combination; usable on most firearms. Cost: \$10-\$50	Can be cut; Must install according to directions (not through trigger) and keep key or combination away from at-risk persons
	 Trigger lock	Key or combination; blocks trigger but doesn't prevent loading. Cost: \$10-\$50	Must not use on loaded gun (could still fire), must keep key or combination away from at-risk persons; not usable on lever-action guns
	 Lock box	Key, combination, keypad or biometrics; smaller than safe. Cost: \$25-\$350	Firearm can be stored loaded or unloaded, must keep key or combination away from at-risk persons; may require batteries
	 Safe	Key, combination, or biometric identification. Cost: \$200-\$2,500	Most secure option if multiple guns (especially long guns)
	 Disassembled gun	Ensures gun cannot be fired but requires gun knowledge	Not always practical; may lose parts
	 "Smart" gun	Biometric identification ensures only owner can fire	Does not protect against owner suicide; cannot be retrofitted
Transfer Possession	 With a family member or friend	State laws vary widely concerning allowable storage and transfer regulations	May be most feasible option for out-of-home storage (especially with family), depending on state laws
	 With law enforcement	In most states, allowed but not required	May not be appealing to some patients
	 At a gun store or range	In most states, allowed but not required	Not all stores or ranges store firearms

Expanded and adapted from materials from Project ChildSafe,<sup>135</sup> Means Matter,<sup>161</sup> New Hampshire Firearm Safety Coalition,<sup>162</sup> Law Center to Prevent Gun Violence,<sup>163</sup> and the National Rifle Association.<sup>131-133</sup>

questions and discussions are ideally conducted in patient rooms or other private spaces.

**When and What?**

Regardless of why, with whom, or where discussions about firearms occur with patients, they should take the form of respectful, nonjudgmental education about the individual's risk of firearm injury or death, including ways to mitigate that risk. The language used by providers during screening and counseling is important.<sup>129</sup> Expert consensus recommends leading into the question

“Do you own or have access to a gun?” with an explanation of why you are asking. It is critically important to begin this conversation as one would any other injury prevention conversation with recognition of the patient's condition. So, for instance, one might say: “I am concerned about your safety. I ask all of my depressed patients about these safety concerns. Do you have a plan for how you would hurt yourself? Do you own or have access to a gun?”

Borrowing from concepts of shared decision-making and motivational interviewing, the physician can then

show empathy, educate about risks, and engage in discussion. When having this discussion, be aware that words like “confiscation,” “restriction,” “removal,” or similar terms may be concerning or offensive to patients<sup>130</sup> and are best avoided. In most cases, providers can provide assurance that the goal is to work with patients (and often their family members) to reduce the threat of injury or death, without involvement of law enforcement or other agencies and without permanent removal of firearms. Specifically, these discussions aim to engage patients and family members in decisions about safer firearm storage options. (See Table 2.) Choice of storage method likely will depend on the clinical scenario, as well as cost and acceptability. For example, a person who owns a firearm mostly for self-protection may not be interested in using a cable or trigger lock (as these preclude instant use), but may be open to a rapid-access, code-operated bedside lock box.

Information and recommendations about safe storage are also available from large firearm organizations like the National Rifle Association (NRA) and National Shooting Sports Foundation (NSSF), and providers can refer patients to these organizations and their materials as appropriate. The NRA “Gun Safety Rules” include the recommendation to “store guns so they are not accessible to unauthorized persons” and “always keep the gun unloaded until ready to use.”<sup>131</sup> The NRA also offers a description of available locking devices<sup>132</sup> and recommends that parents educate children about firearms<sup>133</sup> but does not specifically suggest that all guns always be stored locked. The NSSF recommends storing firearms unloaded and locked, with ammunition stored separately and locked,<sup>134</sup> with specific suggestions about options for locked storage of firearms kept loaded for personal protection and additional guidance for parents through its “Project ChildSafe.”<sup>135</sup> The NSSF also specifies that if a household member is “at risk,” the gun owner should ensure that firearms are inaccessible to that person, either through offsite storage or effective locking. “At risk” people are defined by the NSSF as “those with symptoms or history of treatment for mental

**Table 3. Examples of Available Resources for Patients and Providers**

Resource	Source
<b>General (applicable to all types of firearm injuries and deaths)</b>	
Patient handout	Firearms Responsibility in the Home (National Shooting Sports Foundation) <a href="http://www.nssf.org/safety/lit/FRITH.pdf">www.nssf.org/safety/lit/FRITH.pdf</a>
General information	Center for Gun Policy and Research (Johns Hopkins Bloomberg School of Public Health) <a href="http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research">www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research</a>
General information	Gun Laws & Policies (Law Center to Prevent Gun Violence) <a href="http://smartgunlaws.org/gun-policy">http://smartgunlaws.org/gun-policy</a>
General information	National Network of Hospital-based Violence Intervention Programs <a href="http://nnhvip.org">http://nnhvip.org</a>
<b>Intentional Self-harm</b>	
Patient handout	When a family member is suicidal: Firearm storage options (New Hampshire Firearm Safety Coalition) <a href="http://www.theconnectprogram.org/sites/default/files/site-content/firearm_storage_options.pdf">www.theconnectprogram.org/sites/default/files/site-content/firearm_storage_options.pdf</a>
Patient resource	National Suicide Prevention Lifeline (1-800-273-8255, also web chat) <a href="http://www.suicidepreventionlifeline.org">www.suicidepreventionlifeline.org</a>
Provider training	Counseling on Access to Lethal Means: CALM (Suicide Prevention Resource Center) <a href="http://training.sprc.org/">http://training.sprc.org/</a>
General information	Means Matter, Harvard School of Public Health <a href="http://www.hsph.harvard.edu/means-matter">http://www.hsph.harvard.edu/means-matter</a>
<b>Intentional harm to or by others</b>	
Patient resource	National Domestic Violence Hotline (1-800-799-7233, also web chat) <a href="http://www.thehotline.org">www.thehotline.org</a>
Provider training and tools	The Danger Assessment <a href="http://www.dangerassessment.org">www.dangerassessment.org</a>
Provider information	State hotlines & coalitions (Feminist Majority Foundation) <a href="http://www.feminist.org/911/crisis_state.html">www.feminist.org/911/crisis_state.html</a>
Provider information	California's Gun Violence Restraining Order (Law Center to Prevent Gun Violence) <a href="http://smartgunlaws.org/californias-new-gun-violence-restraining-order-law">http://smartgunlaws.org/californias-new-gun-violence-restraining-order-law</a>
Provider information	Understanding Intimate Partner Violence (Centers for Disease Control & Prevention) <a href="http://www.cdc.gov/violenceprevention/pdf/ipv-factsheet.pdf">www.cdc.gov/violenceprevention/pdf/ipv-factsheet.pdf</a>
Provider information	VetoViolence (Centers for Disease Control & Prevention) <a href="http://vetoviolenecdc.gov">http://vetoviolenecdc.gov</a>
<i>(continued)</i>	

illness, increasing patterns of alcohol/substance abuse, isolation or violent behaviors, or recent experience with a major life event — such as divorce, job

loss, or financial trouble. It also can be someone who you, the firearm's owner, have good reason to believe is likely to do harm to himself or others."<sup>134</sup>

As outlined above, there are three clinical situations in which it would be important for an ED provider to ask a patient about firearm access: risk of intentional harm to self (i.e., risk of suicide); risk of intentional harm by or to others (i.e., homicide, including intimate partner and other interpersonal violence); and risk of unintentional harm to self (i.e., “accidental” injury in a child or cognitively impaired person). Written educational materials for patients can be helpful in all of the above scenarios; examples of available resources are listed in Table 3.

Specific recommendation for screening and risk mitigation also may depend on the scenario.

**Risk of Intentional Harm to Self.**

Regardless of how suicide risk is identified, all patients at risk of intentional self-harm should be asked about access to firearms and other lethal means.<sup>72,136</sup> This question can be integrated into questioning about a suicidal individual's thoughts, intent, and plan. For example, an EP might ask a patient: “What kind of suicidal thoughts have you been having? Do you have any intention of acting on those thoughts? Do you have a plan for how you would kill yourself? Do you have access to firearms?” If the patient discloses a particular non-firearm plan, the EP should also ask about access to that method; for example, if a patient is planning on overdosing on a medication, the EP should ask about access to that medication. However, all suicidal patients should be screened for firearm access, regardless of their plan, because of the impulsivity of suicide attempts and the high lethality of firearm attempts.<sup>66</sup>

For patients at acute risk of suicide, the goal of screening for firearm access and subsequent “lethal means counseling” is to ensure the at-risk individual does not have access to firearms (or other lethal means of suicide) until the risk of self-harm has abated. One option to reduce access is locked storage within the home (such that the at-risk person does not have access to the key or code); numerous types of storage devices exist (see Table 2), and patients and families should be encouraged to choose the one they are most likely to use. Out-of-home firearm storage, even temporarily,

**Table 3. Examples of Available Resources for Patients and Providers (continued)**

Resource	Source
<b>Unintentional Self-harm</b>	
Patient handout	Pediatrics Patient Page: Keeping Children and Adolescents Safe from Firearms. (Moreno MA. <i>JAMA Pediatr</i> 2015;169:412) <a href="http://archpedi.jamanetwork.com/article.aspx?articleid=2214029">http://archpedi.jamanetwork.com/article.aspx?articleid=2214029</a>
Patient handout	Parents' Guide to Home Firearm Safety (University of Michigan Injury Center) <a href="http://www.injurycenter.umich.edu/sites/default/files/documents/firearm_safety_flyer_final_6-3-15.pdf">www.injurycenter.umich.edu/sites/default/files/documents/firearm_safety_flyer_final_6-3-15.pdf</a>
Patient handouts and videos	Project ChildSafe (National Shooting Sports Foundation) <a href="http://www.projectchildsafe.org/safety/safety-resources">www.projectchildsafe.org/safety/safety-resources</a>
Patient handouts and provider information	Where We Stand: Gun Safety (Multiple resources about pediatric firearm injury from the American Academy of Pediatrics) <a href="http://www.healthychildren.org/English/safety-prevention/all-around/Pages/Where-We-Stand-Gun-Safety.aspx">www.healthychildren.org/English/safety-prevention/all-around/Pages/Where-We-Stand-Gun-Safety.aspx</a>
Patient handouts and provider information	Lok-It-Up (King County Department of Public Health) <a href="http://kingcounty.gov/healthservices/health/injury/lokidup.aspx">http://kingcounty.gov/healthservices/health/injury/lokidup.aspx</a>

is another way to limit a suicidal patient's access. Some gun stores or ranges, as well as law enforcement agencies, may temporarily store guns, so providers could inquire about resources in their locale of practice. For patients with chronic elevated risk of suicide, the safest long-term option to reduce risk of death is to permanently remove firearms from the home, but this type of counseling would likely occur within an established patient-provider relationship (and not in an ED).

Lethal means counseling is a recommended component of discharge planning for all ED patients evaluated for suicide risk and then discharged home.<sup>72,136</sup> Assessing firearm access is also important for ED patients being admitted for suicidal ideation or attempts, as it can help a family make the home safer for when the patient is eventually discharged. Firearm access itself also might affect decisions about patient disposition; for example, a provider may lean toward hospitalization for a patient with high suicide risk who is also unwilling to reduce firearm access.

**Risk of Intentional Harm By or To Others.** *Assault.* Identification of patients at elevated, acute risk of homicide (as a perpetrator or victim) is difficult. Patients who explicitly mention homicidal ideation clearly merit further

evaluation and questioning, and it may be permissible to disclose this threat to the police (if a patient does not meet criteria for involuntary psychiatric hold). Providers may want to assess firearm access in patients with other risk factors for future violence.

It is easier to identify patients at near-term risk of firearm injury. Those presenting with an acute injury from physical assault, whether as a victim or a perpetrator, are at the highest risk of future firearm death. For these patients, it is important to provide a "safety check," which may include specific questions about firearms, or may include more general questions about risk of future assault-related injury. One such screen, developed by the Children's Hospital of Pennsylvania, includes four questions: "Do you know who the person is who hurt you? Do you think that the conflict that caused this incident is over? Do you plan to hurt anyone because of what happened today? Do you think that your friends or family will hurt anyone because of what happened today?"<sup>137</sup>

For those screening positive for risk of future injury, EPs have a few options. When possible, such as in large trauma centers, the provider may consider linking the patient to a social worker or a violence intervention program (VIP). Many studies have shown that

by addressing assault-injured patients' psychosocial needs — such as substance dependence, mental health issues (particularly post-traumatic stress disorder), and lack of access to jobs — the trajectory of violence can be changed.<sup>138</sup> For instance, one study found that youth who received a hospital-based peer intervention program soon after a violent injury were 70% less likely to be arrested for any offense and 60% less likely to have criminal involvement when compared with violently injured youth who did not receive the intervention.<sup>139</sup> One study of stepped psychiatric care, ranging from brief motivational interviews to in-depth multi-session cognitive behavioral therapy, reduced rates of weapon carriage in traumatically injured youth during the year after the injury.<sup>140</sup> These VIPs repeatedly have been shown to be cost-effective, with a brief motivational interviewing intervention estimated to cost just \$17.06 per violent event averted, and a similar intervention estimated to save \$82,765 to \$4,055,873 in healthcare, criminal justice, and lost productivity costs for 90 violently injured patients over five years.<sup>141,142</sup> These interventions also may be reimbursable under the Affordable Care Act.<sup>143</sup>

Providers working in less-resourced settings could consider what community resources are available. Many communities have non-hospital-based VIPs. Other community programs, such as Boys' and Girls' Clubs, also may be effective at reducing violence recidivism.<sup>144</sup>

Finally, all providers can consider engaging patients in brief motivational interviews, similar to the "screening and brief intervention" strategy used for alcohol and substance use. This involves validating a patient's experience; reviewing patterns of behavior; connecting these patterns to their current ED visit; providing normative data; developing discrepancies between a patient's goals and their current patterns; providing resources; and restating and reflecting a patient's goals and next steps.<sup>137</sup>

*Intimate Partner Violence.* Patients identified as victims or perpetrators of IPV should always be asked about the presence of firearms in the home and about any recent threats or escalation

of violence. In these situations, the preamble to the question about firearm access may include a statement such as, “My primary concern is about the safety of you [and your children]. Because of that, I want to ask a few more questions.” The question to ask can be taken directly from Danger Assessment, a standard tool for assessing risk of death from partner violence: “Does your partner own a gun?”

The counseling and referral options for IPV victims at risk of homicide differ from those for peer violence victims. The most important thing is to validate a patient’s experience and avoid offering prescriptive solutions.<sup>145</sup> Research studies show that EPs often fail to acknowledge a patient’s disclosure of IPV.<sup>146</sup> Once a patient’s positive response has been acknowledged, we can offer resources, including a referral to local domestic violence services or a call to the National Domestic Violence Hotline (which often has local volunteers who can visit an ED; *Table 3*). These resources will be able to assist the EP to help ensure the patient’s safety, and will have greater knowledge of local laws about how to minimize a perpetrator’s firearm access.<sup>147</sup>

**Risk of Unintentional Harm to Self or Others.** The risk of unintentional self-harm or other-harm from unsecured firearms is elevated in individuals with impaired judgment and cognitive skills. These include those with brain injuries and dementias<sup>148</sup> and children and adolescents, as their cognitive skills are still developing.<sup>149</sup> Discussing the risk of unintentional harm from firearms in this group may be the most difficult firearm topic in the ED setting, but patient educational materials are available. (*See Table 3.*)

The American Academy of Pediatrics (AAP) recommends that pediatricians counsel all parents about prevention of firearm injuries;<sup>150</sup> this type of “anticipatory guidance,” similar to that used for car seats and smoking, may be appropriate in EDs as well, although patients may be most receptive to it when directly relevant to the reason for visit. Indeed, some studies suggest that providing counseling on multiple injury prevention topics at once may dilute the effectiveness of all topics.<sup>151</sup>

Counseling to family members of those with impaired cognition or judgment who are at risk of unintentional self-harm (e.g., children, adolescents, and those with brain disorders) typically will focus on in-home secure storage. Given the different time scale of risk — days to weeks for suicide risk vs. years for unintentional injury — out-of-home storage with friends, family, firearm stores, or law enforcement is less likely to be a feasible solution. The AAP recommends that providers educate parents that permanently removing guns from the home is the best option to reduce unintentional firearm “accidents” in children. Although some groups have advocated for firearm safety training for children, studies show that these programs (including NRA’s Eddie Eagle program) are often ineffective in real life.<sup>152-154</sup> The safest storage option inside the home is to keep a gun locked up, unloaded, and separate from ammunition.<sup>97</sup>

## Other Considerations

EPs may have medico-legal concerns related to ED-based discussions of firearm safety.

The first concern is over proposed or enacted “gag laws” aimed at preventing healthcare providers from asking or documenting about patients’ firearm access. No true gag law is currently in effect,<sup>6</sup> as even Florida’s well-known and controversial law allows for questioning by a provider who “in good faith believes that this information is relevant to the patient’s medical care or safety, or the safety of others” and stipulates that the only information excluded from medical records is that which is “not relevant to the patient’s medical care or safety, or the safety of others.”<sup>122</sup> Thus, providers should feel confident that they may question patients about firearms and document these discussions when relevant (as in the scenarios discussed above). Not asking about firearms in relevant situations in fact may raise liability concerns for the provider. As an example, national guidelines now suggest that ED providers conduct lethal means assessments with all suicidal patients,<sup>136</sup> and it is conceivable that failure to do so could be grounds for legal action.<sup>31</sup>

The second concern is that statutes about how best to minimize risk of harm differ greatly between locales. Therefore, each EP should become familiar with local statutes about when and how to handle firearm access by patients at high risk of hurting themselves or others. For instance, in Iowa, anyone served a domestic violence protection order must surrender firearms and ammunition, either to a “qualified person” (as determined by the court) or to a sheriff.<sup>155</sup> In many other states, this is limited to a “may” surrender. In Rhode Island, even those convicted of domestic violence misdemeanors may own firearms.<sup>156</sup> The strongest level of protection exists in California, where concerned family members or law enforcement officers (but not healthcare providers) may obtain a “Gun Violence Restraining Order” (GVRO).<sup>157</sup> A GVRO is designed to be similar to a domestic violence restraining order or a psychiatric hold: A concerned party may ask a judge to deem someone at risk of hurting themselves or others, and then may temporarily remove firearms and ammunition from that person’s possession; the firearms and ammunition are returned after expiration of the GVRO. The efficacy of GVROs has yet to be proven, and these provisions are not currently an option in most U.S. states.

A third concern is how screening and counseling for firearm safety will affect the doctor-patient relationship. Some providers are concerned that encouraging doctors to screen and counsel may dissuade patients who own firearms from seeking medical care, disclosing suicidal ideation, or disclosing psychosis; indeed, a decrease in disclosure of partner violence has been observed in states with mandatory reporting of domestic violence to the police.<sup>158</sup> In most states, only court-adjudicated (e.g., involuntary) hospitalizations for mental illness are reported to the national firearm background check system. Of note, time-limited emergency mental health holds (e.g., 72-hour hold, psychiatric hold, M1, 5150, etc., with name variations among states) do not result in the patient being entered into the national background check system or being prohibited from possessing or purchasing firearms. In a few states,

such as New York, mental health professionals are required to make a report to a state database if they conclude, using reasonable professional judgment, that the individual is likely to engage in conduct that would result in serious harm to self or others.<sup>159</sup> The effect of these laws on either rates of harm to self and others, or on rates of care-seeking, are unknown.<sup>160</sup>

In response to these three concerns, it is important to reiterate that screening and counseling a patient on firearm safety is optional, and should be performed when a patient fits into one of the three general high-risk categories outlined above. Also, EPs always should be informed and have knowledge of local statutes and resources.

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## CME/CE QUESTIONS

- Which of the following categories represents two-thirds of firearm deaths?
    - Suicide
    - Intimate partner violence
    - Gang violence
    - Mass shootings
  - What is the case fatality rate of a firearm suicide attempt?
    - 50%
    - 10%
    - 33%
    - 90%
  - Which demographic group has the highest absolute number of deaths from firearms?
    - Young black men
    - Reproductive age women
    - Older white men
    - Children
  - Which of the following is true about screening patients for firearm access in the ED?
    - It is illegal to screen or counsel in some states.
    - Expert consensus recommends screening in high-risk groups.
    - You should only discuss firearms if you are a firearm owner yourself, to avoid offending your patients.
    - It is OK to ask without explaining the reason why you are asking.
  - What has been shown to be effective in reducing the rate of firearm injuries?
    - Eddie Eagle programs for children
    - Hospital-based violence intervention programs
    - Mandatory firearm seizure
    - Hospitalization
  - Which of the following are risk factors for an ED patient suffering a future firearm injury?
    - Substance use
    - Prior history of firearm injury
    - Suicidal ideation
    - All of the above
- Children are at highest risk of an unintentional firearm injury if:
    - they have been taught how to safely use a firearm.
    - they are of low socio-economic status.
    - they live in a house where firearms are stored loaded and unlocked.
    - their parents are neglectful.
  - “Safe storage” options include:
    - keeping a gun where kids can’t see it.
    - using a cable lock.
    - hiding a firearm in a piece of furniture.
    - there are no safe storage options.
  - Which of the following is true about counseling high-risk patients about firearm injury?
    - It is best to use authoritative language.
    - It is best to scare the patient by quoting statistics about injury and death.
    - It is best to use empathy and consider a patient’s reasons for firearm ownership.
    - It is best to advise that they never own a gun for any reason.
  - Which of the following is true about numbers of firearm deaths?
    - The rate varies according to state and according to type of injury.
    - Nothing can change the number of firearm deaths.
    - Firearm deaths are less common among people who own guns for protection.
    - Firearm deaths are less common than deaths from motor vehicle crashes.



## EMERGENCY MEDICINE REPORTS

### CME/CE Objectives

Upon completion of this educational activity, participants should be able to:

- recognize specific conditions in patients presenting to the emergency department;
- apply state-of-the-art diagnostic and therapeutic techniques to patients with the particular medical problems discussed in the publication;
- discuss the differential diagnosis of the particular medical problems discussed in the publication;
- explain both the likely and rare complications that may be associated with the particular medical problems discussed in the publication.

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# EMERGENCY MEDICINE **REPORTS**

## Discussing Firearms with Emergency Department Patients: Why, Who, Where, When, and What

### Who To Ask

Category of Risk of Firearm Injury or Death	Sample Patient Populations
Intentional harm to self	<ul style="list-style-type: none"> <li>• Those with suicidal thoughts or behavior</li> <li>• Those with a history of mental illness</li> <li>• Adolescents</li> <li>• Those with alcohol or substance abuse</li> </ul>
Intentional harm by or to others	<ul style="list-style-type: none"> <li>• Victims of assault</li> <li>• Victims of intimate partner (domestic) violence</li> <li>• Those with homicidal thoughts or behavior</li> <li>• Those with alcohol or substance abuse</li> </ul>
Unintentional harm to self	<ul style="list-style-type: none"> <li>• Children (and their parents)</li> <li>• Those with cognitive impairment</li> </ul>

### Firearm Safe Storage Options

	Option	Description	Notes
Retain Possession	<b>Cable lock</b> 	Key or combination; usable on most firearms. Cost: \$10-\$50	Can be cut; Must install according to directions (not through trigger) and keep key or combination away from at-risk persons
	<b>Trigger lock</b> 	Key or combination; blocks trigger but doesn't prevent loading. Cost: \$10-\$50	Must not use on loaded gun (could still fire), must keep key or combination away from at-risk persons; not usable on lever-action guns
	<b>Lock box</b> 	Key, combination, keypad or biometrics; smaller than safe. Cost: \$25-\$350	Firearm can be stored loaded or unloaded, must keep key or combination away from at-risk persons; may require batteries
	<b>Safe</b> 	Key, combination, or biometric identification. Cost: \$200-\$2,500	Most secure option if multiple guns (especially long guns)
	<b>Disassembled gun</b> 	Ensures gun cannot be fired but requires gun knowledge	Not always practical; may lose parts
	<b>"Smart" gun</b> 	Biometric identification ensures only owner can fire	Does not protect against owner suicide; cannot be retrofitted
Transfer Possession	<b>With a family member or friend</b> 	State laws vary widely concerning allowable storage and transfer regulations	May be most feasible option for out-of-home storage (especially with family), depending on state laws
	<b>With law enforcement</b> 	In most states, allowed but not required	May not be appealing to some patients
	<b>At a gun store or range</b> 	In most states, allowed but not required	Not all stores or ranges store firearms

Expanded and adapted from materials from Project ChildSafe,<sup>135</sup> Means Matter,<sup>161</sup> New Hampshire Firearm Safety Coalition,<sup>162</sup> Law Center to Prevent Gun Violence,<sup>163</sup> and the National Rifle Association.<sup>131-133</sup>

## Examples of Available Resources for Patients and Providers

Resource	Source
<b>General (applicable to all types of firearm injuries and deaths)</b>	
Patient handout	Firearms Responsibility in the Home (National Shooting Sports Foundation) <a href="http://www.nssf.org/safety/lit/FRITH.pdf">www.nssf.org/safety/lit/FRITH.pdf</a>
General information	Center for Gun Policy and Research (Johns Hopkins Bloomberg School of Public Health) <a href="http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research">www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research</a>
General information	Gun Laws & Policies (Law Center to Prevent Gun Violence) <a href="http://smartgunlaws.org/gun-policy">http://smartgunlaws.org/gun-policy</a>
General information	National Network of Hospital-based Violence Intervention Programs <a href="http://nnhvip.org">http://nnhvip.org</a>
<b>Intentional Self-harm</b>	
Patient handout	When a family member is suicidal: Firearm storage options (New Hampshire Firearm Safety Coalition) <a href="http://www.theconnectprogram.org/sites/default/files/site-content/firearm_storage_options.pdf">www.theconnectprogram.org/sites/default/files/site-content/firearm_storage_options.pdf</a>
Patient resource	National Suicide Prevention Lifeline (1-800-273-8255, also web chat) <a href="http://www.suicidepreventionlifeline.org">www.suicidepreventionlifeline.org</a>
Provider training	Counseling on Access to Lethal Means: CALM (Suicide Prevention Resource Center) <a href="http://training.sprc.org/">http://training.sprc.org/</a>
General information	Means Matter, Harvard School of Public Health <a href="http://www.hsph.harvard.edu/means-matter">http://www.hsph.harvard.edu/means-matter</a>
<b>Intentional harm to or by others</b>	
Patient resource	National Domestic Violence Hotline (1-800-799-7233, also web chat) <a href="http://www.thehotline.org">www.thehotline.org</a>
Provider training and tools	The Danger Assessment <a href="http://www.dangerassessment.org">www.dangerassessment.org</a>
Provider information	State hotlines & coalitions (Feminist Majority Foundation) <a href="http://www.feminist.org/911/crisis_state.html">www.feminist.org/911/crisis_state.html</a>
Provider information	California's Gun Violence Restraining Order (Law Center to Prevent Gun Violence) <a href="http://smartgunlaws.org/californias-new-gun-violence-restraining-order-law">http://smartgunlaws.org/californias-new-gun-violence-restraining-order-law</a>
Provider information	Understanding Intimate Partner Violence (Centers for Disease Control & Prevention) <a href="http://www.cdc.gov/violenceprevention/pdf/ipv-factsheet.pdf">www.cdc.gov/violenceprevention/pdf/ipv-factsheet.pdf</a>
Provider information	VetoViolence (Centers for Disease Control & Prevention) <a href="http://vetoviolence.cdc.gov">http://vetoviolence.cdc.gov</a>
<i>(continued)</i>	

## Examples of Available Resources for Patients and Providers (continued)

Resource	Source
<b>Unintentional Self-harm</b>	
Patient handout	Pediatrics Patient Page: Keeping Children and Adolescents Safe from Firearms. (Moreno MA. <i>JAMA Pediatr</i> 2015;169:412) <a href="http://archpedi.jamanetwork.com/article.aspx?articleid=2214029">http://archpedi.jamanetwork.com/article.aspx?articleid=2214029</a>
Patient handout	Parents' Guide to Home Firearm Safety (University of Michigan Injury Center) <a href="http://www.injurycenter.umich.edu/sites/default/files/documents/firearm_safety_flyer_final_6-3-15.pdf">www.injurycenter.umich.edu/sites/default/files/documents/firearm_safety_flyer_final_6-3-15.pdf</a>
Patient handouts and videos	Project ChildSafe (National Shooting Sports Foundation) <a href="http://www.projectchildsafe.org/safety/safety-resources">www.projectchildsafe.org/safety/safety-resources</a>
Patient handouts and provider information	Where We Stand: Gun Safety (Multiple resources about pediatric firearm injury from the American Academy of Pediatrics) <a href="http://www.healthychildren.org/English/safety-prevention/all-around/Pages/Where-We-Stand-Gun-Safety.aspx">www.healthychildren.org/English/safety-prevention/all-around/Pages/Where-We-Stand-Gun-Safety.aspx</a>
Patient handouts and provider information	Lok-It-Up (King County Department of Public Health) <a href="http://kingcounty.gov/healthservices/health/injury/lokidup.aspx">http://kingcounty.gov/healthservices/health/injury/lokidup.aspx</a>

Supplement to *Emergency Medicine Reports*, July 1, 2016: "Discussing Firearms with Emergency Department Patients: Why, Who, Where, When, and What." Authors: Megan L. Ranney, MD, MPH, Assistant Professor, Department of Emergency Medicine, Alpert Medical School, Brown University, Providence, RI; and Marian E. Betz MD, MPH, Associate Professor, Department of Emergency Medicine, University of Colorado School of Medicine; Denver, CO.

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