

# Sentinel Event Alert

A complimentary publication of The Joint Commission

Issue 59, April 17, 2018

Revised: June 18, 2021 (in red)

## Physical and verbal violence against health care workers

"I've been bitten, kicked, punched, pushed, pinched, shoved, scratched, and spat upon," says Lisa Tenney, RN, of the Maryland Emergency Nurses Association. "I have been bullied and called very ugly names. I've had my life, the life of my unborn child, and of my other family members threatened, requiring security escort to my car."<sup>1</sup>

Situations such as these describe some of the types of violence directed toward health care workers. Workplace violence is not merely the heinous, violent events that make the news; it is also the everyday occurrences, such as verbal abuse, that are often overlooked. While this *Sentinel Event Alert* focuses on physical and verbal violence, there is a whole spectrum of overlapping behaviors that undermine a culture of safety, addressed in *Sentinel Event Alert* issues 40 and 57;<sup>2,3</sup> those types of behaviors will not be addressed in this alert. The focus of this alert is to help your organization recognize and acknowledge workplace violence directed against health care workers from patients and visitors, better prepare staff to handle violence, and more effectively address the aftermath.

### What is workplace violence?

The CDC National Institute for Occupational Safety and Health (NIOSH) defines workplace violence as "violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty."<sup>2</sup> The U.S. Department of Labor defines workplace violence as an action (verbal, written, or physical aggression) which is intended to control or cause, or is capable of causing, death or serious bodily injury to oneself or others, or damage to property. Workplace violence includes abusive behavior toward authority, intimidating or harassing behavior, and threats.<sup>3</sup>

as "violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty."<sup>4</sup> The U.S. Department of Labor defines workplace violence as an action (verbal, written, or physical aggression) which is intended to control or cause, or is capable of causing, death or serious bodily injury to oneself or others, or damage to property. Workplace violence includes abusive behavior toward authority, intimidating or harassing behavior, and threats.<sup>5</sup>

Published for Joint Commission accredited organizations and interested health care professionals, *Sentinel Event Alert* identifies specific types of sentinel and adverse events and high risk conditions, describes their common underlying causes, and recommends steps to reduce risk and prevent future occurrences.

Accredited organizations should consider information in a *Sentinel Event Alert* when designing or redesigning processes and consider implementing relevant suggestions contained in the alert or reasonable alternatives.

Please route this issue to appropriate staff within your organization. *Sentinel Event Alert* may be reproduced if credited to The Joint Commission. To receive by email, or to view past issues, visit [www.jointcommission.org](http://www.jointcommission.org).



Although most incidents of workplace violence in health care are verbal in nature, other incidents involve assault, battery, domestic violence, stalking, and sexual harassment.<sup>6</sup> The most common type of violence in health care is patient/visitor to worker.<sup>7,8</sup> A 2014 survey on hospital crime attributed 75 percent of aggravated assaults and 93 percent of all assaults against health care workers to patients or customers.<sup>9</sup>

### **Prevalence of workplace violence in health care**

According to the Occupational Safety and Health Administration (OSHA), approximately 75 percent of nearly 25,000 workplace assaults reported annually occurred in health care and social service settings<sup>10</sup> and workers in health care settings are four times more likely to be victimized than workers in private industry.<sup>11</sup> The National Crime Victimization Survey showed health care workers have a 20 percent higher chance of being the victim of workplace violence than other workers.<sup>12</sup> Bureau of Labor Statistics (BLS) data show that violence-related injuries are four times more likely to cause health care workers to take time off from work than other kinds of injuries.<sup>13</sup> The Joint Commission's Sentinel Event data show 68 incidents of homicide, rape, or assault of hospital staff members over an eight-year period.\*

Alarming, the actual number of violent incidents involving health care workers is likely much higher because reporting is voluntary. Researchers at Michigan State University estimated that the actual number of reportable injuries caused by workplace violence, according to Michigan state databases, was as much as three times the number reported by the BLS,<sup>14</sup> which does not record verbal incidents.<sup>15</sup>

Episodes of workplace violence of all categories are grossly underreported.<sup>10,16</sup> Health care workers are sometimes uncertain what constitutes violence, because they often believe that their assailants are not responsible for their actions due to conditions affecting their mental state.<sup>17</sup> Only 30 percent of nurses report incidents of workplace violence;<sup>18</sup> among emergency department physicians, the reporting rate is 26 percent.<sup>19</sup> Underreporting is due in part to thinking that violence is "part of the job."<sup>20</sup> In addition, worker-to-worker verbal abuse in health care has been accepted too often, leading to thinking that workers must accept verbal abuse from patients, too.

---

\* The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small proportion of actual events. Therefore, these data are not an epidemiologic data set and no conclusions should be drawn about the actual relative frequency of events or trends in events over time.

Adding to the problem are the many ways that workplace injuries may be reported at health care organizations. Information about health care workers injured on the job — whether punched by a patient or accidentally stuck by a needle — may be reported into various databases rather than one integrated database. This makes it difficult to recognize the scope of a workplace violence problem, or to track the effectiveness of efforts to mitigate or prevent workplace violence.

To improve tracking efforts, OSHA launched the [Injury Tracking Application](#), a secure website where covered employers must submit their workplace injury and illness information, including acute injuries and illnesses, days away from work, restricted work activity, or job transfer (also known as Days Away, Restrictions and Transfers, or DART).<sup>21,22</sup> In May 2016, OSHA published a rule titled "Improve Tracking of Workplace Injuries and Illnesses," with an original effective date of Jan. 1, 2017 that was extended to Dec. 1, 2017.<sup>21</sup> OSHA is considering whether or not to publish a new standard to prevent workplace violence in health care and social assistance settings. The agency issued a public Request for Information on the extent and nature of workplace violence in the industry and the effectiveness and feasibility of methods used to prevent such violence. The comment period closed on April 6, 2017.<sup>23</sup>

It is important to note that employers are required to provide a place of employment that is "free from recognized hazards that are causing or are likely to cause death or serious harm," under the [General Duty Clause](#), Section 5(a)(1) of the Occupational Safety and Health Act of 1970.<sup>24</sup>

### **Contributing factors**

Violence against health care workers occurs in virtually all settings, with the emergency department (ED) and inpatient psychiatric settings having the most recorded incidents.<sup>11,25</sup> The home care setting presents particular challenges because this environment is less controlled than other health care settings.<sup>25</sup> Sixty-one percent of home care workers report workplace violence each year.<sup>26</sup> Long-term residential care facilities for the aged, cognitively impaired and mentally ill patients present special challenges.<sup>27</sup> There is very little research about other settings.<sup>25</sup>

Virtually all types of health care professionals have been victims. Nurses and nurses' aides, particularly those in emergency settings<sup>11,28</sup> and in nursing homes with dementia units,<sup>29</sup> have been victimized at the highest rate.<sup>11,15,20,30</sup> An American Nurses

Association study found that over a three-year period, 25 percent of surveyed registered nurses and nursing students reported being physically assaulted by a patient or a patient's family member, and about half reported being bullied.<sup>31</sup> Physicians, particularly emergency medicine physicians,<sup>11,20,29</sup> and inpatient psychiatric workers<sup>20,32</sup> also are frequently victimized.

The most common characteristic exhibited by perpetrators of workplace violence is altered mental status associated with dementia, delirium, substance intoxication, or decompensated mental illness.<sup>10,33</sup> Also, one study showed that patients in police custody within a health care setting are involved in 29 percent of shootings in emergency departments, with 11 percent occurring during escape attempts.<sup>34</sup> Increasingly, hospitals are providing care for potentially violent individuals.<sup>11</sup>

In addition to caring for patients with these characteristics, other factors associated with violence are:

- Stressful conditions, such as long wait times or crowding in the clinical environment or being given “bad news” related to a diagnosis or prognosis.<sup>10,35</sup>
- Lack of organizational policies and training for security and staff to recognize and deescalate hostile and assaultive behaviors from patients, clients, visitors, or staff.<sup>10</sup>
- Gang activity.<sup>10</sup>
- Domestic disputes among patients or visitors.<sup>36</sup>
- The presence of firearms or other weapons.<sup>10</sup>
- Inadequate security and mental health personnel on site.<sup>10</sup>
- Understaffing, especially during mealtimes and visiting hours.<sup>10</sup>
- Staff working in isolation or in situations in which they can be trapped without an escape route.<sup>10</sup>
- Poor lighting or other factors restricting vision in corridors, rooms, parking lots and other areas.<sup>37</sup>
- No access to emergency communication, such as a cell phone or call bell.<sup>10</sup>
- Unrestricted public access to hospital rooms and clinics.<sup>10</sup>
- Lack of community mental health care.<sup>10</sup>

Workplace violence results in low staff morale, lawsuits, and high worker turnover.<sup>10</sup> High turnover is associated with job burnout – defined as a negative reaction to constant occupational stressors.

There is no conclusive evidence linking workplace violence with demographic groups<sup>38,39</sup> or with urban versus suburban or rural emergency departments;<sup>15</sup> making these assumptions may lead to discrimination against particular types of patients.<sup>25</sup> Although shootings in the health care environment gain much media attention, they are quite rare compared to other kinds of violence, such as assaults not involving a firearm, and verbal abuse.<sup>40</sup>

Recognizing verbal assault as a form of workplace violence cannot be overlooked, since verbal assault is a risk factor for battery.<sup>41</sup> According to the “broken windows” principle, apathy toward assaults such as verbal abuse creates an environment conducive to more serious, physical crimes.<sup>20,42</sup>

With leadership commitment and worker participation, customized and evidence-based approaches to reduce workplace violence can be found and will vary from setting to setting. For example, Aria-Jefferson Health implemented [Operation Safe Workplace](#), a multidisciplinary approach to hospital violence. After identifying a baseline of 42 injuries related to workplace violence in fiscal year 2012, the organization gathered and analyzed data before designing interventions to address the problem in five ways: environment, policy and procedure, technology and equipment, communication, and people. By fiscal year 2015, Aria-Jefferson reduced these injuries to 19, a 55 percent decrease.<sup>43</sup> In addition, a cluster randomized trial at Wayne State University reduced incidents of workplace violence on intervention units compared to control units by implementing environmental, administrative and behavioral strategies tailored to the needs of participating units.<sup>44</sup>

#### **Actions suggested by The Joint Commission**

Health care workers must be alert and ready to act when they encounter verbal or physical violence – or the potential for violence – from patients or visitors who may be under stress or who may be fragile, yet also volatile. Health care organizations are encouraged to address this growing problem by looking beyond solutions that only increase security.

#### **1. Clearly define workplace violence and put systems into place across the organization that enable staff to report workplace violence instances, including verbal abuse.**

- Leadership should establish a goal of zero harm to patients and staff and, to that end, must

make clear that the health care organization is responsible for identifying, addressing and reducing instances of workplace violence; that burden must not be placed upon victims of violence.

- Emphasize the importance of reporting all events involving physical and verbal violence toward workers, as well as patients and visitors.
- Encourage conversations about workplace violence during daily unit huddles, including team leaders asking each day if any team members have been victims of physical or verbal abuse or if any patients or family situations may be prone to violence.
- Develop systems or tools to help staff identify the potential for violence, such as a checklist or questionnaire that asks if a patient is irritable, confused or threatening.
- Develop a protocol, guidance and training about the reporting required by the hospital safety team, OSHA, police, and state authorities. For example, [Western Connecticut Health Network developed a protocol](#) to be used after incidents of workplace violence against employees.<sup>45</sup>
- Create simple, trusted, and secure reporting systems that result in transparent outcomes, and are fully supported by leadership, management, and labor unions.<sup>46</sup> Protect patient and worker confidentiality in all reporting by presenting only aggregate data or removing personal identifiers.<sup>10</sup>
- Remove all impediments to staff reporting incidents of violence toward workers – such as retribution or disapproval of supervisors or co-workers and a lack of follow-up or positive recognition from leadership.<sup>10,25</sup>

## **2. Recognizing that data come from several sources, capture, track and trend all reports of workplace violence – including verbal abuse and attempted assaults when no harm occurred.**

- Gather this information from all hospital databases, including those used for OSHA, insurance, security, human resources, complaints, employee surveys, legal or risk management purposes, and from change of shift reports or huddles.
- Regularly distribute these workplace violence reports throughout the organization, including to the quality committee and up to the executive and governance levels.
- Aggregate and report incidents to external organizations that maintain a centralized database. This can lead to identification of new hazards, trends, and potential strategies for

solutions; these solutions can then be shared broadly.<sup>27</sup>

The [Centers for Disease and Control and Prevention \(CDC\) Occupational Health Safety Network](#) is a useful resource to help to analyze and track worker injury and exposure data, including data on workplace violence. See Resources.

## **3. Provide appropriate follow-up and support to victims, witnesses and others affected by workplace violence, including psychological counseling and trauma-informed care if necessary.<sup>10,11,25</sup>**

## **4. Review each case of workplace violence to determine contributing factors. Analyze data related to workplace violence, and worksite conditions, to determine priority situations for intervention.**

- According to OSHA, this process includes a worksite analysis and hazard identification (for example, risk assessment).<sup>10</sup> To determine trends and “hot spots,” analyze where, when, why and how violence has occurred and to whom. This process can include a review of workers’ compensation, insurance records, OSHA logs and other data relating to workplace violence, as well as an analysis of factors (such as staffing levels) that can contribute to or reduce the likelihood of violence occurring.<sup>10</sup>
- Demonstrate the value and necessity of reporting by communicating to staff the risk assessment findings and the interventions taken to immediately address the situation.

**5. Develop quality improvement initiatives to reduce incidents of workplace violence.** Support the implementation of cost-effective, evidence-based solutions as they are discovered.<sup>25</sup> After a review of all pertinent data relating to workplace violence, develop evidence-based initiatives and interventions (when possible) to prevent and control workplace violence. Tailor specific interventions to problems identified at the local level. Depending on the data gathered, an initiative for the ED, inpatient psychiatric unit, labor and delivery, or the intensive care unit (ICU) may differ from an initiative in a unit not generally associated with workplace violence. According to OSHA, these initiatives generally focus on eliminating hazards or substituting them with safer work practices.<sup>10</sup> Some examples follow.

- ***Changes to the physical environment:*** Depending on the organization’s situation and priorities (identified from the organization’s data), physical or technological solutions may include enhanced security or alarms, better exit



routes, regular security patrols/rounds, metal detectors, panic buttons (including mobile panic buttons), monitoring or surveillance technology (such as cameras), barrier protection (for example, keypad access doors and fencing), environmental changes to facilitate de-escalation and reduce hazards, and better lighting.<sup>10</sup> As mentioned above, each organization should use its own data to identify the most effective use of these solutions. As just one example, a hospital that has identified a high incidence of confrontations occurring in the parking lot and in waiting areas may want to have more regular security patrols, or a more visible security presence, in those areas.

- **Changes to work practices or administrative procedures:** To create a calmer environment less conducive to violence, assign sufficient staff to units to reduce crowding and wait times, both risk factors for workplace violence.<sup>10</sup> Decreasing worker turnover and providing adequate security and mental health personnel on-site also are recommended.<sup>10,47</sup> Other administrative or work practice solutions may include developing workplace violence response teams and policies; reviewing entry and identification procedures; and changing work procedures to keep team members, including those providing transportation, secure and not isolated by having the means to call for help.<sup>10</sup>

## 6. Train all staff, including security, in de-escalation, self-defense and response to emergency codes.<sup>10</sup>

When threatening language and agitation are identified, initiate de-escalation techniques quickly.<sup>25</sup> Self-defense training may include topics such as violence risk factors, de-escalation techniques, alarms, security support, safe rooms, escape plans, and emergency communication procedures.<sup>10</sup>

- Regarding de-escalation and self-defense, experts suggest that hospitals prohibit firearms from campus, except for firearms used by law enforcement officers.<sup>48</sup> The Centers for Medicare and Medicaid Services (CMS) does not permit the use of weapons by any hospital staff as a means of subduing a patient.<sup>49</sup>
- Conduct practice drills that include response to a full spectrum of violent situations, which could range from a verbally abusive family member to an active shooter. These practice drills can be part of an ongoing safety program, as indicated in The Joint Commission Environment of Care (EC) standards; however, a situation such as an active shooter require

more extensive coordination with community responders, and can be addressed in exercises as described in the Emergency Management (EM) standards (see “Related Joint Commission requirements” section).

## 7. Evaluate workplace violence reduction initiatives by:

- Regularly reviewing reported incidents and leadership’s responses to them.
- Analyzing trends in incidents, injuries and fatalities relative to baseline rates and measuring improvement.
- Surveying workers to determine effectiveness of initiatives.
- Tracking if recommendations were completed.
- Keeping abreast of new strategies.
- Partnering with local law enforcement or having a consultant review the worksite.<sup>10</sup> They can provide advice and updates on possible risks that are developing in the community, as well as help with resource planning or security audits. If local law enforcement response time is known to be long due to distance or other factors, consider internal resources or other options to control a situation until law enforcement arrives.

## Related Joint Commission requirements

The Joint Commission has several standards that relate directly or indirectly to workplace violence:

- Leadership (LD) and Rights and Responsibilities of the Individual (RI) standards establish the framework for safety and security of all persons in the organization.
- Provision of Care, Treatment, and Services (PC) standards provide guidance addressing patient assessment and interventions.
- Environment of Care (EC) standards address the physical environment and practices that enhance safety.
- Emergency Management (EM) standards address planning for more extreme risks of workplace violence, such as active shooters, community unrest, and terrorist attack.

Also, effective Jan. 1, 2022, new workplace violence standards provide a framework to guide hospitals and critical access hospitals in defining workplace violence; developing strong workplace violence prevention systems; and developing a leadership structure, policies and procedures, reporting systems, post-incident strategies, training, and education to decrease workplace violence. The new requirements are located at EC.02.01.01 EP 17; Human Resources standard HR.01.05.03 EP 29;

and LD.03.01.01 EP 9. In addition, EC.04.01.01 EPs 1 and 6 have been revised.

See the content of these [standards](#) on The Joint Commission website, posted with this alert.

## Resources

### Occupational Safety and Health Administration (OSHA)

- [Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers](#)
- [Preventing Workplace Violence in Healthcare](#)

### The Joint Commission

- [Workplace Violence Prevention Resources](#)
- [Questions & Answers: Hospital Accreditation Standards & Workplace Violence](#)
- [Improving Patient and Worker Safety](#) (Pages 95-108)<sup>27</sup>

### Centers for Disease Control and Prevention (CDC)

- [Occupational Health Safety Network](#): A free, web-based system to help health care facilities analyze and track data they already collect on workplace violence; sharps injuries; blood and body fluid exposures; slips, trips and falls; and patient-handling injuries.
- [Workplace Violence Prevention for Nurses](#)
- [Home Healthcare Workers: How to Prevent Violence on the Job](#)

### Centers for Medicare and Medicaid Services (CMS)

- [Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers](#)

## References

1. [Enough is enough: OSHA to issue regulation on violence](#). *Case Management Advisor*, 2017;28(9):43-5.
2. The Joint Commission. Behaviors that undermine a culture of safety. *Sentinel Event Alert*, 2008;40.
3. The Joint Commission. The essential role of leadership in developing a safety culture. *Sentinel Event Alert*, 2017;57.
4. Centers for Disease Control and Prevention. National Institute for Occupational Safety and Health (NIOSH). [Violence in the workplace](#). DHHS (NIOSH) Publication Number 96-100, Current Intelligence Bulletin 57. Atlanta, GA: DOL, July 1996.
5. U.S. Department of Labor. DOL Workplace Violence Program — Appendices. [Definitions](#). Washington, D.C.: DOL, no date.
6. Rugala EA and Isaacs AR, eds. Workplace violence: Issues in response. Quantico, VA: Critical Incident Response Group, National Center for the Analysis of Violent Crime, FBI Academy, 2003.

7. Howard J. State and local regulatory approaches to preventing workplace violence. *Occupational Medicine*, 1996;11(2):293-301.
8. Peek-Asa C, et al. Incidence of non-fatal workplace assault injuries determined from employer's reports in California. *Journal of Occupational and Environmental Medicine*, 1997;39(1):44-50.
9. Vellani KH. The 2014 IHSSF crime survey. *Journal of Healthcare Protection Management*, 2014;30(2):28-35.
10. Occupational Safety and Health Administration. [Guidelines for preventing workplace violence for healthcare and social service workers \(OSHA, 3148-04R\)](#). Washington, DC: OSHA, 2015.
11. Security Industry Association and International Association of Healthcare Security and Safety Foundation. [Mitigating the risk of workplace violence in health care settings](#). Silver Spring, MD: Security Industry Association, August 2017.
12. Harrell E. [Workplace violence, 1993-2009](#). Washington, DC: Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey, 2011.
13. United States Department of Labor. [Census of Fatal Occupational Injuries \(CFOI\) — current and revised data](#). Washington, DC: Bureau of Labor Statistics, 2014.
14. Rosenman KD, et al. How much work-related injury and illness is missed by the current national surveillance system? *Journal of Occupational and Environmental Medicine*, 2006;48(4):357-65.
15. Kowalenko T, et al. Prospective study of violence against ED workers. *American Journal of Emergency Medicine*, 2013;31(1):197-205.
16. Arnetz JE, et al. Underreporting of workplace violence comparison of self-report and actual documentation of hospital incidents. *Workplace Health & Safety*, 2015;63(5):200-10.
17. Privitera M, et al. Violence toward mental health staff and safety in the work environment. *Occupational Medicine (London)*, 2005;55(6):480-6.
18. Speroni KG, et al. Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors. *Journal of Emergency Nursing*, 2014;40(3):218-28.
19. Behnam M, et al. Violence in the emergency department: A national survey of emergency medicine residents and attending physicians. *Journal of Emergency Medicine*, 2011;40(5):565-79.
20. McPhaul KM and Lipscomb JA. Workplace violence in health care: Recognized but not regulated. *Online Journal of Issues in Nursing*, 2004;9(3):7.
21. Occupational Safety and Health Administration. [New Safety and Health Resources, July 1 to Sept. 30, 2017](#). OSHA Compliance Assistance Resources. Electronic Submission of Injury and Illness Records to OSHA. Washington, D.C.: OSHA, 2017.
22. Occupational Safety and Health Administration. [OSHA 3169 Publication: Recordkeeping](#). Washington, D.C.: OSHA, 2001.
23. United States Department of Labor. Occupational Safety and Health Administration. [Request for information and stakeholder meeting: reducing workplace violence in health care and social assistance](#). Washington, D.C.: OSHA, ca. 2017.

24. U.S. Department of Labor. Occupational Health and Safety Administration. Workplace Violence. [Enforcement](#). Washington, D.C.: OSHA, no date.
25. Phillips JP. Workplace violence against health care workers in the United States. *New England Journal of Medicine*, 2016;374(17):1661-9.
26. Hanson GC, et al. Workplace violence against homecare workers and its relationship with workers health outcomes: A cross-sectional study. *BMC Public Health*, 2015;15:11.
27. The Joint Commission. [Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation](#). Oakbrook Terrace, IL: The Joint Commission. 2012.
28. May DD and Grubbs LM. The extent, nature, and precipitating factors of nurse assault among three groups of registered nurses in a regional medical center. *Journal of Emergency Nursing*, 2002;28(1):11-7.
29. Tak S, et al. Workplace assaults on nursing assistants in U.S. nursing homes: A multi-level analysis. *American Journal of Public Health*, 2010;100(10):1938-45.
30. Pompeii LA, et al. Physical assault, physical threat, and verbal abuse perpetrated against hospital workers by patients or visitors in six U.S. hospitals. *American Journal of Industrial Medicine*, 2015;58(11):1194-204.
31. American Nurses Association. [Executive Summary: American Nurses Association Health Risk Appraisal](#), October 2013-October 2016.
32. Hoskins AB. [Occupational injuries, illnesses, and fatalities among nursing, psychiatric, and home health aides, 1995-2004](#). Washington, DC: Bureau of Labor Statistics, 2006.
33. Pompeii L, et al. Perpetrator, worker and workplace characteristics associated with patient and visitor perpetrated violence (type II) on hospital workers: A review of the literature and existing occupational injury data. *Journal of Safety Research*, 2013;44(Feb):57-64.
34. Kelen GD, et al. Hospital-based shootings in the United States: 2000 to 2011. *Annals of Emergency Medicine*, 2012;60(6):790-8.e1.
35. Gacki-Smith J, et al. Violence against nurses working in US emergency departments. *Journal of Nursing Administration*, 2009; 39(7-8):340-9.
36. Occupational Safety and Health Administration. [Workplace violence in health care: Understanding the challenge](#). Washington, D.C.: OSHA, 2015.
37. Centers for Disease Control and Prevention. [Violence: Occupational Hazards in Hospitals](#). Cincinnati: National Institute of Occupational Safety and Health, 2002.
38. Hartley D, et al. Non-fatal workplace violence injuries in the United States 2003-2004: A follow back study. *Work*, 2012;42(1):125-35.
39. Gates D, et al. Occupational and demographic factors associated with violence in the emergency department. *Advanced Emergency Nursing Journal*, 2011;33(4):303-13.
40. Blair JP and Schweit KW. [A study of active shooter incidents in the United States between 2000-2013](#). Washington, DC: Texas State University and Federal Bureau of Investigation, Department of Justice, 2014.
41. Lanza ML, et al. Non-physical violence: a risk factor for physical violence in health care settings. *AAOHN Journal*, 2006;54(9):397-402.
42. Kelling GL and Wilson JQ. [Broken windows: The police and neighborhood safety](#). *Atlantic Monthly*, March 1982;249(3):29-38.
43. Beard D and Conley M. [Operation Safe Workplace: A multidisciplinary approach to workplace violence](#). Philadelphia: Aria-Jefferson Health, 2017.
44. Arnetz JE, et al. Preventing patient-to-worker violence in hospitals: outcome of a randomized controlled intervention. *Journal of Occupational and Environmental Medicine*. 2017;59(1):18-27.
45. Western Connecticut Health Network. [Incidents of Workplace Violence and Assault of Western Connecticut Health Network Employee](#). Danbury, CT: WCHN, 2015.
46. Wyatt R, et al. Workplace violence in health care: A critical issue with a promising solution. *Journal of the American Medical Association*, 2016;316(10):1037-8.
47. Henson B. Preventing interpersonal violence in emergency departments: Practical applications of criminology theory. *Violence & Victims*, 2010;25(4):553-65.
48. Callaway DW and Phillips JP. Active shooter response. In: Ciotto G, ed. *Ciotto's disaster medicine*. 2nd ed. Philadelphia: Elsevier Health Sciences, 2015;424-30.
49. Centers for Medicare and Medicaid Services. [State Operations Manual, Appendix A – Protocol, Regulations and Interpretive Guidelines for Hospitals](#), Section 482.13(e), Baltimore, MD: CMS, 2015.

---

#### Patient Safety Advisory Group

The Patient Safety Advisory Group informs The Joint Commission on patient safety issues and, with other sources, advises on topics and content for *Sentinel Event Alert*.