

# Forensic Nurse Examiners — Meeting the Needs of Survivors of Violent Crimes

McKenna C. Noe, M.D., Miriam Crandall, R.N., B.S.N., and Caroline Tougas, M.D.

Against the backdrop of the Covid-19 pandemic and the ongoing epidemic of gun violence, rates of assault and domestic violence in the United States have been on the rise. According to the Department of Justice, in 2022, the nationwide rate of nonfatal violent victimizations reached a 10-year high of 23.5 per 1000 people. Included in that year's 6,624,950 nonfatal violent crimes were 531,810 rapes or sexual assaults, 1,540,110 aggravated assaults, 1,412,290 violent crimes causing injury, and 1,370,440 cases of domestic violence. The rate of nonfatal firearm victimizations in 2022 also increased drastically, from 1.2 per 1000 people in 2021 to 2.3 per 1000 people in 2022. When survivors of violence seek evaluation and treatment, they are most likely to present to an emergency department<sup>1</sup>; the increase in demand for emergency medical care of survivors of assault and abuse has resulted in an increased need for standardized medicolegal services in emergency settings.

Historically, the medicolegal needs of people who die as a result of assault or domestic violence have been met by forensic experts such as medical examiners and clinical forensic pathologists during the autopsy process. Patients who survive their injuries, by contrast, may not receive expert medicolegal consultation. In place of official medicolegal examination, in-hospital documentation by emergency medicine physicians or trauma surgeons is used

by default as evidence in legal proceedings. Courts rely particularly heavily on such testimony in cases involving victims who may be unable to verbalize how their injuries occurred — such as children, intellectually or developmentally disabled persons, persons with dementia, and those with severe traumatic brain injuries. As a result, many physicians will be called on to take uncompensated time away from clinical responsibilities to testify as “factual” or “expert” witnesses at some point in their training or careers.<sup>1</sup>

Medicolegal documentation by physicians who lack forensic training has proven profoundly insufficient and error-prone.<sup>2,3</sup> Shuman and Wright's 1999 study comparing documentation of gunshot wounds (GSWs) by physicians specializing in trauma with that of medical examiners found the prevalence of errors of the former pertaining to the number of wounds or wound direction (entrance vs. exit wounds) to be 36% in cases involving a single GSW (single entrance wound with retained bullet), 44% in cases involving two GSWs, and an overwhelming 93% in cases involving three or more GSWs.<sup>2</sup> In cases of survivable GSWs for which there was no comparator from a medical examiner, just 5% of documentation described the size or shape of the wound, 0.3% included descriptors that could be used to discern the distance of fire, 53% contained sufficient infor-

mation to identify wound location, and 29% contained words indicative of directionality — information that is often critically relevant to legal proceedings.

In addition to failing to properly detect and document evidence of violent crimes, care team members often fail to properly collect and preserve evidence. One retrospective emergency-department review of medicolegal cases found that mishandling of evidence occurred 38% of the time.<sup>3</sup> These errors have serious consequences with far-reaching effects for victims and perpetrators of violent crimes alike and have been clearly linked to miscarriages of justice.<sup>2</sup>

In stark contrast to Europe, where avenues of clinical forensic medicine for survivors of violent crimes are well established, the United States has no nationwide mandate or opportunity for forensic training of nonpathologist physicians.<sup>1</sup> The scope of this problem, in the context of the time burden that court appearances impose on physicians, has led to efforts to meet patients' medicolegal needs with the help of forensic nurse examiners (FNEs).

FNEs are registered nurses trained in the investigation and handling of medicolegal evidence as well as delivery of medicolegal testimony in courts of law. They typically have expertise in various types of injury and assault, including abuse of a child or elderly person (which encompasses neglect), intimate partner violence, sexual assault and rape, violent

penetrating trauma, and physical assault. An FNE may choose to further subspecialize within the field. The FNE model has proven successful in the treatment of sexual assault, as deployment of sexual assault nurse examiners (SANEs) has enhanced the care of assault survivors and fidelity of the “chain of evidence” in medicolegal investigations, leading to increases in successful prosecutions.<sup>4</sup>

Training requirements for FNEs remain largely unstandardized and vary by state. Although an official certification pathway for SANEs exists under the aegis of the International Association of Forensic Nurses (IAFN), certification is often not required before one can practice independently as a SANE or in another FNE capacity. Persistent needs for these services even in the absence of training standardization has led to the establishment of numerous certification programs by professional societies and institutions of higher learning. Such programs are offered by the IAFN, the American Institute of Health Care Professionals, and the American Nurses Association, as well as 17 universities listed on the IAFN website that provide master's degrees or certificates in FNE. These programs, unlike the 30 SANE programs also listed on the IAFN website, are not officially IAFN approved. Enrollment in these FNE courses has historically been limited by lack of

awareness of this field of medicine, financial constraints, and the difficulty of balancing the time requirements of clinical responsibilities with further education in the absence of institutional buy-in.

The lack of a uniform FNE credentialing process makes it difficult to determine the true number of active FNEs in the United States: although the IAFN indicates that it had more than 6000 members in 2021 (including 2135 SANEs), current estimates suggest that SANEs — the largest and best-recognized subgroup of FNEs — may currently be employed by less than one fifth of hospitals nationwide.<sup>5</sup>

The United States is facing growing rates of assault and domestic violence. Current approaches to medicolegal evidence collection and documentation in emergency departments of U.S. hospitals are deeply flawed, forcing the courts tasked with pursuing justice for survivors of violent crimes to rely on mishandled evidence and the testimony of physicians who lack forensic training. Clinical FNEs can fill this gap, enabling the health care system to better serve the medicolegal needs of our patients and alleviating the associated burden on physicians. Further work in establishing the field of forensic nurse examination and improving the accessibility and standardization of educational programs is needed. We believe that

a national investment in the standardization and expansion of FNE education programs is warranted, with funding for that education and the deployment of FNEs at all major adult and pediatric level 1 and level 2 trauma hospitals in the United States, especially in communities with a high incidence of violent penetrating trauma. Such an investment would vastly improve the capacity of our hospitals and legal system to meet the medicolegal needs of survivors of violent crimes.

Disclosure forms provided by the authors are available at NEJM.org.

From the Department of Surgery, University of Washington, Seattle (M.C.N.); and the Departments of Orthopedic Surgery (M.C.N., C.T.) and Emergency Surgery (M.C.), Children's Mercy Kansas City, Kansas City, MO.

This article was published on November 9, 2024, at NEJM.org.

1. Wiler JL, Bailey H, Madsen TE. The need for emergency medicine resident training in forensic medicine. *Ann Emerg Med* 2007;50:733-8.
2. Shuman M, Wright RK. Evaluation of clinician accuracy in describing gunshot wound injuries. *J Forensic Sci* 1999;44:339-42.
3. Carmona R, Prince K. Trauma and forensic medicine. *J Trauma* 1989;29:1222-5.
4. McGregor MJ, Du Mont J, Myhr TL. Sexual assault forensic medical examination: is evidence related to successful prosecution? *Ann Emerg Med* 2002;39:639-47.
5. Rape, Abuse and Incest National Network. Congress moves to address critical shortage of sexual assault nurse examiners; RAINN partners on bipartisan legislation. February 15, 2022 (<https://www.rainn.org/news/congress-moves-address-critical-shortage-sexual-assault-nurse-examiners-rainn-partners>).

DOI: 10.1056/NEJMp2403604

Copyright © 2024 Massachusetts Medical Society.