



The Importance of Needlestick and Sharps Safety for Nurses and Staff in the Interventional Radiology Setting

■ Mary Foley, PhD, RN, FAAN

ABSTRACT: Needlestick injuries continue to be one of the most serious health and safety threats in our health care workplaces. Because of the invasive nature and unique procedural circumstances of interventional radiology (e.g., dark environment, sterile drapes, etc.), nurses and radiologists are at a high risk of accidental needlestick and sharps injuries. As a natural result of these procedural circumstances, the focus of the staff is on the patient and his or her well-being, and it is likely not on the safety of the staff during or after the procedure, when the risk of injury is greatest. Despite the fact that the majority of US acute care facilities have now largely converted to the use of safety-engineered medical devices, after the first decade of the Needlestick Safety and Prevention Act of 2000, a large number of nurses and other personnel still remain at serious risk of injury. By combining proactive measures—such as training staff on the correct use of medical safety devices, establishing injury prevention teams, and evaluating all medical safety devices thoroughly—with reactive measures like maintaining an accurate injury log, nurses will be able to come to work with a lessened risk of needlestick and sharps injuries and be able to educate one another on how to make these types of injuries a “never event” in the health care setting. (*J Radiol Nurs* 2014;33:53-56.)

KEYWORDS: Needlestick; Sharps; Injury; Personnel; Safety.

INTRODUCTION

Everyday, millions of US health care workers are at risk of incurring a needlestick or sharps injury. In hospitals alone, nearly 1,000 personnel suffer needlestick injuries each day ([U.S. Department of Labor, Occupational Health and Safety Administration, 2000](#)), and because of this high incidence rate, needlestick

injuries continue to be one of the most serious health and safety threats in our health care workplaces ([U.S. Department of Labor, Occupational Health and Safety Administration, 2000](#)). Needlestick injuries have become a growing issue among nurses as a result of a lack of education, lack of reporting, and outdated safety protocols for new procedures.

Over the course of a health care worker's career, needlestick injuries are an all-too-common occurrence. This type of injury puts 5.6 million health care personnel at risk for occupational exposure to life-threatening blood-borne pathogens ([U.S. Department of Labor, Occupational Health and Safety Administration, 2000](#)). What's worse is that statistics indicate that by the time health care workers complete their training, 99% of them have been stuck with needles at least once and 53% of these needlesticks come from high-risk patients, such as those with HIV ([Makary et al., 2007](#)).

Mary Foley, PhD, RN, FAAN, a past president of the American Nurses Association, is the Safe in Common Chairperson and the Director at the Center for Nursing Research and Innovation at the University of California San Francisco (UCSF) School of Nursing.

Corresponding author: Mary Foley, Safe In Common, 880 Third Avenue, 6th Floor, New York, NY 10022. E-mail: Mary.Foley@nursing.ucsf.edu 1546-0843/\$36.00

*Copyright © 2014 by the Association for Radiologic & Imaging Nursing.
<http://dx.doi.org/10.1016/j.jradnu.2014.03.004>*

In the area of exposure to blood-borne pathogens, there have been improvements over the last 20 years. In 2000, for example, the Needlestick Safety and Prevention Act (NSPA) passed, making safer needle devices more widely available in health care settings. However, most of the current risks of needlesticks and exposure to pathogens are still borne by nurses, and a number of challenges exist regarding compliance, enforcement, and the selection of the safest and most user-friendly medical devices that nurses and other frontline staff use.

The challenges that interventional radiology nursing staff members face are prime examples of why we need to improve needlestick safety protocols. Because of the invasive nature and unique procedural circumstances of interventional radiology (e.g., dark environment, sterile drapes, etc.), nurses and radiologists are at a high risk of accidental needlestick and sharps injuries.

INTERVENTIONAL RADIOLOGY SAFETY CONCERNS

Because of the technological advances and the increasing availability of high-quality imaging equipment, interventional radiologists are able to offer patients and referral physicians a host of treatment options. The concept behind interventional radiology is to diagnose and treat diseases in nearly every organ system using the least invasive techniques that are currently available to minimize risk to the patient and improve health outcomes (Shekelle et al., 2013).

As the inventors of angioplasty and the catheter-delivered stent, interventional radiologists pioneered modern minimally invasive medicine. Using x-rays, computed tomography, ultrasound, magnetic resonance imaging, and other imaging modalities, interventional radiologists obtain images that are used to direct interventional instruments throughout the body. These procedures are usually performed using needles and catheters rather than by making large incisions into the body as in traditional surgery. Many conditions that once required surgery can now be treated nonsurgically by interventional radiologists. By minimizing the physical trauma to the patient, peripheral interventions can reduce infection rates and recovery time, as well as shorten hospital stays (Shekelle et al., 2013).

Although the risks of injury to patients are diminished, the risks to interventional radiologists and other staff in the clinical setting remain a challenge because of the nature of the procedures. Many procedures are done while the patient is under x-ray using a needle or catheter during an intensive and critical time-limited activity that is viewed on a screen. As a natural result, the focus of the staff is on the patient and his or her well-being, and it is likely not on the safety of the

staff during or after the procedure, when the risk of injury is greatest. According to a National Health Service Survey, 15% of the injuries to interventional radiology personnel were suffered during procedures, whereas 85% of injuries occurred as a result of incorrect use or disposal of the equipment (Sayani & Rajani, 2012). Similar data are reported from a larger study from the Center for Disease Control, which states that the vast majority of needlestick injuries are a result of improper use and disposal of needles rather than incidents during clinical practice (Sayani & Rajani, 2012).

NEEDLESTICK AND SHARPS SAFETY RECOMMENDATIONS

Despite the fact that the majority of US acute care facilities have now largely converted to the use of safety-engineered medical devices, after the first decade of the NSPA of 2000, a large number of nurses and other personnel still remain at serious risk of injury. Successful needlestick and sharps injuries prevention requires a coordinated effort by professionals, purchasers, employers, and manufacturers. When these groups work together to educate health care personnel about safer work practices, and when properly designed medical devices are available, only then can there be significant steps to improvement.

Every health care facility and department within the facility should have a sharpened focus on eliminating the risk of needlestick and sharps injuries wherever possible. The increased knowledge of the risks, and the reenergized focus, will go a long way to protect nurses. Implementation of the following recommended practices can help to improve the overall safety of nurses and all health care professionals.

Implement a Multidisciplinary Injury Prevention Team

Health care facilities should establish multidisciplinary injury prevention teams with representatives from all disciplines that are at risk of harm from needlestick and sharps injuries. Nurses and those who perform the care should have the greatest level of representation. Other representatives should come from senior procurement administration, pharmacies, nursing unit management, staff safety, quality management, facility management, and infection control. At-risk workers, such as cleaning staff (especially those responsible for sharps disposal), should be represented, as well.

Require Training in Injury Prevention and Device Selection

All staff members and radiologists should receive regular education and training in the use of needle devices, injury prevention (including how to properly dispose of needles and sharps) and infection control. Those who

Download English Version:

<https://daneshyari.com/en/article/2668023>

Download Persian Version:

<https://daneshyari.com/article/2668023>

[Daneshyari.com](https://daneshyari.com)