Needlestick Safety and Advocacy

Summary

History and Evolution of Needlestick Safety Protocols

In the midst of the early HIV/AIDS epidemic in the mid-1980's, healthcare workers in San Francisco grappled with understanding this new disease. They were discovering that not only were their patients presenting with this new, little understood condition, but some of their colleagues were being afflicted with the same symptoms. At that time, limited occupational safety protocols existed to protect healthcare workers from diseases acquired through bloodborne pathogens.

In 1991, due to increasing rates of HIV infection among healthcare workers and the improved understanding of bloodborne pathogens, the Occupational Safety and Health Administration (OSHA) passed the Bloodborne Pathogens Standard (BBP) requiring employers to develop a written exposure control plan; implement universal precautions; provide personal protective equipment; use preventative engineering and work practices controls; and prohibit bending, recapping, and removing contaminated needles and sharps. Thereafter individual states took the lead in establishing state specific protocols with California leading the charge. These protocols required facilities to encourage the utilization of safety devices and the provision of personal protective equipment.

Legislative Activity

Though OSHA regulations improved safety throughout the nation, there still existed over 700,000 estimated annual needlesticks in the nation. These grim statistics encouraged a collaboration of nurse associations (led by the American Nurses Association campaign, *Safe Needles, Save Lives*), healthcare advocates in infection control and labor unions to lobby for the support of national legislation providing stronger mandates to protect healthcare workers. In 2000, the National Needlestick Safety and Prevention Act (NSPA) was passed and signed into law by President Clinton. The legislation was effective as of April of the following year. The OSHA BloodBorne Pathogen Standard from 1991 was thus amended to include the provision in the NSPA.

The new law was designed to make more specific the requirement by OSHA that

employers identify, evaluate and implement safety medical devices, especially addressing occupational exposure to bloodborne pathogens from accidental sharps injuries in healthcare and other occupational settings. The legislation also mandated additional requirements including:

- Modification of definitions related to engineering controls and use of safer devices
- Solicitation and active participation of employees in selection of safer devices.
- Revision and updating of the exposure control plan.
- More detailed documentation of each needlestick and sharps incident in separate injury logs

Currently, twenty-four states, Puerto Rico and the Virgin Islands have OSHA-approved state plans and have adopted their own standards and enforcement policies. State-specific needle safety legislation is available for viewing through the National Institute of Occupational Safety and Health (NIOSH).

Progress since passage of legislative mandates

Since the passage of this legislation, healthcare workers have experienced a significant drop in needlesticks. The Exposure Prevention Information Network, EPINet, reported nearly a 50% drop in needlesticks from 2001 to 2007 from EPINet network facilities[1]. Though this is significant, it is important to note that this sampling represents a small percentage of healthcare facilities throughout the U.S. and that there remain nearly 1,000 sharps injuries per day in addition to numerous needlesticks that are unreported according to the CDC.

Over a decade has passed since the legislation and there is evidence that the importance of this issue has fallen off the radar. Though the NSPA mandates that institutions conduct annual product reviews and that nurses be involved in the decision-making process, two-thirds (66%) of nurses state they do not have the opportunity to influence the selection of sharps safety devices in their workplace, compared to 58 percent in 2007 and 57 percent in 2006[2]. Additionally, a 2008 study of 700 nurses views on workplace safety conducted by the American Nurses Association, found that nearly two-thirds (64%) of respondents reported needlestick injuries and that bloodborne infections remain major concerns[3].

Furthermore, the ECRI Institute, an independent, nonprofit organization that researches the best approaches to improve the

[1] Perry J, Parker G, Jagger J. EPINet Report 2007 Percutaneous Injury Rates. International Healthcare Worker Safety Center, August 2009.
[2] http://ana.nursingworld.org/MainMenuCategories/OccupationalandEnvironmental/occupationalhealth/SafeNeedles/2008-Study/WorkplaceSafetyTopConcerns.asp
[3] American Nurses Association and Inviro Medical Devices. 2008 Study of Nurses' Views on Workplace Safety and Needlestick Injuries.

safety and quality of patient care included 'Needlesticks and Other Sharps Injuries' as one of their *Top Ten Health Technology Hazards* for 2012[4].

Further Studies Needed

The issue of needlesticks has also not been fully studied in many healthcare specialties and is important to note sharps injuries can take place in many healthcare environments. In 2011 an article in the Journal of the American College of Surgeons cited increases in sharps injuries in surgical settings compared to non-surgical settings after the passage of the NSPA. After the legislation, injury rates in nonsurgical settings dropped 31.6%, but increased 6.5% in surgical settings. This evidence suggests that much work needs to be done in hospital compliance with requirements for the adoption of safer surgical technologies, and the promotion of policies and practices shown to substantially reduce blood exposures to surgical staff[5].

Conclusion

It is evident that a renewed commitment needs to take place to practicing sharps safety related techniques, a dedication on the part of manufacturers to continue developing new safety devices, and further studies to better understand and monitor the scope of this issue. According to Mary Foley, past President of the American Nurses Association and needlestick safety advocate, "Facilities no longer have needlestick safety at the top of their list of priorities...worker safety is lagging and that deeply concerns me. Patient safety and healthcare worker safety must be aligned and both sets of experiences should be measured and monitored and constantly improved upon."

[4] To order report go to https://www.ecri.org/2012_Top_10_Hazards

[5] Jagger J, Berguer R, Phillips EK, Parker G, Gomaa AE. Increase in sharps injuries in surgical settings versus nonsurgical settings after passage of national needlestick legislation. Journal of the American College of Surgeons 2010 Apr;210(4):496-502.