

# NURSING MATTERS

*Nursing Matters* fact sheets provide quick reference information and international perspectives from the nursing profession on current health and social issues.

## ICN on Preventing Needlestick Injuries

### Facts and Issues

***At least one in eight health care workers receives a needlestick injury potentially exposing them to serious or fatal infections***

Accidental needlestick injuries are the predominant sharps-related problem in industrialized countries. American health workers suffer 800,000 to 1 million needlesticks annually, not including the vast number that go unreported. There are more than 100,000 needlestick injuries in UK hospitals each year. Needlesticks are virtually undocumented in developing countries, but probably equal or exceed those in the industrial world. More than 20 blood borne diseases can be transmitted as a result of exposure to blood. Inadequate waste disposal systems extend the problem beyond health workers to cleaners, laundry workers, porters, 'rag pickers' and the general community<sup>2</sup>.

In some countries, health care providers feel obliged to give injections to satisfy their clients' perceptions of proper treatment. Three studies in Sub-Saharan Africa and Asia found that between 60 and 80% of all injections given were unnecessary and sometimes dangerous. The most frequently injected medications were antibiotics<sup>2</sup>.

### Impact on nurses

Nurses have the highest rate of needlestick injury among health care workers. A health worker's risk of infection from a needlestick injury depends on the pathogen involved, the immune status of the worker, and the severity of the needlestick. The probability that a single needlestick will result in disease is 3 to 5 chances in 1 000 for HIV, 300 chances in 1 000 for Hepatitis B, and 20 to 50 chances in 1 000 for Hepatitis C.

Accidental needlesticks account for 86% of all occupationally related infectious disease transmission. The emotional impact of a needlestick injury can be severe, even when a serious infection is not transmitted, particularly when the injury involves exposure to HIV. In one study of 20 health care workers with an HIV exposure, 11 reported acute severe distress, 7 had persistent moderate distress, and 6 quit their jobs as a result of their exposure<sup>3</sup>.

**This is a true scenario.  
How can it be prevented?**

*An AIDS patient became agitated and tried to remove the intravenous catheters. Hospital staff struggled to restrain the patient. During the struggle, an IV infusion line was pulled, exposing the connector needle. A nurse recovered the connector needle at the end of the IV line and attempted to reinsert it. The patient kicked her arm, pushing the needle into the hand of the second nurse. Three months later, the nurse who sustained the needlestick injury tested positive for HIV<sup>1</sup>.*

## **T**he economics of needlestick injuries

According to the American Hospital Association, one case of serious infection by bloodborne pathogens can result in \$1 million of employer costs related to testing, follow-up, lost time and disability payments. The cost of follow-up for a high-risk exposure is almost \$3 000 per needle stick injury even when no infection occurs. Safe needle devices cost only 28¢ more than standard devices. Hospitals in California are expected to save over \$100 million per year after implementing legislation requiring safe needle devices<sup>4</sup>.

## **N**urses` Rights

According to the International Labour Organization (ILO) all appropriate measures should be taken to prevent, reduce or eliminate risks to the health of nursing personnel. This includes<sup>5</sup>:

- A comprehensive national policy on occupational health.
- The establishment of occupational health services.
- Access to health surveillance, preferably during working hours and at no cost to the worker concerned.
- Medical confidentiality of health surveillance.
- Financial compensation for those exposed to special risks.
- Participation in all aspects of protection provisions.

### **What you can do to protect yourself and others:**

- ⇒ Avoid the use of needles where safe and effective alternatives are available.
- ⇒ Avoid recapping needles.
- ⇒ Participate in blood borne pathogen training and follow recommended infection prevention practices, including hepatitis B vaccination.
- ⇒ Report all needlestick and other sharps related injuries to ensure that you receive appropriate follow-up care.
- ⇒ Advocate for monitoring and safe work practices, including data collection.
- ⇒ Educate and lobby for the development of safer technology.
- ⇒ Advocate for screening, post exposure counseling, prophylaxis, legal aid, and support groups.
- ⇒ Use purchasing power to buy safe equipment.
- ⇒ Create/maintain a safe, comprehensive disposal system.
- ⇒ Promote safety awareness.
- ⇒ Evaluate prevention efforts and provide feedback on performance.

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<sup>1</sup>National Institute for Occupational Health and Safety (NIOSH). Preventing Needlestick Injuries in Health Care Settings. November, 1999. Publication NR. 2000-108.

<sup>2</sup>WHO Safe Injection Global Network

<sup>3</sup>Henry et al., 1990. NIOSH Preventing Needle Stick Injuries in Health Care Settings

<sup>4</sup>American Nurses Association, Nursing Facts: Needlestick Injury, 1998

<sup>5</sup>ILO Recommendation 157: Employment and conditions of work and life of nursing personnel