Reduce Your Risk

The most frequent cause of blood-borne infections in healthcare settings is a "needlestick"—an injury with a needle or other sharp device. Any healthcare worker handling sharp devices or equipment such as scalpels, sutures, hypodermic needles, blood collection devices, or phlebotomy devices is at risk of occupational exposure to bloodborne pathogens. According to the National Institute for Occupational Safety and Health (NIOSH), it is estimated that 600,000 needlestick injuries occur annually in the hospital setting. However, no one knows for sure how many such injuries occur because they often go unreported. A variety of workers are at risk, but studies show that nurses sustain the majority of these injuries.

The consequences of occupational exposure to bloodborne pathogens are not only infections. Each year, thousands of healthcare workers are affected by psychological trauma during months of waiting for notification of serological results. Other personal consequences can include postponement of childbearing, altering sexual practices, side effects of prophylactic drugs, infection, chronic disabilities, loss of employment, denial of worker compensation claims, liver transplant, and premature death.

RESOURCES

Immunization


This report summarizes recommendations of the ACIP concerning the use of certain immunizing agents in healthcare workers, and assists workers and administrators in optimizing infection prevention and control programs.

Postexposure Prophylaxis Hotline

1-888-448-4911

24 hours a day, clinicians have access to the National Clinicians’ Postexposure Prophylaxis Hotline (PEPline). The PEPline has trained physicians prepared to give clinicians information, counseling, and treatment recommendations for workers who have needlestick injuries and other serious occupational exposures to bloodborne microorganisms.

Safety Devices

http://www.med.virginia.edu/medcntr/centers/epinet/products.html

The above Web site provides a list of devices designed to prevent percutaneous injury and exposures to bloodborne pathogens in the healthcare setting. The list was adapted, with permission, from one compiled by Gina Pugliese and Mobashir Salahuddin for the book, Sharps Injury Prevention Program: A Step-by-Step Guide (Chicago: American Hospital Association, 1999).

How to Prevent Needlestick Injuries: Answers to Some Important Questions. OSHA Publication 3161, (Revised in 1999). This brochure looks at safer needle devices and how they can help employers create a safer workplace environment. Includes a sample Safety Feature Evaluation Form, developed by the Training for Development of Innovative Control Technology Project (TDICT), Trauma Foundation, San Francisco, CA (1993).
Precautions to Take When Handling Sharps

Since 1987, CDC has recommended the use of Universal Precautions, later renamed Standard Precautions, to prevent the spread of blood-borne infections in healthcare settings. However, studies have shown that, even when Standard Precautions are fully observed, only one in three needlestick injuries are prevented because gloves and other barriers are not impervious to sharp objects.

Risk of Infection Following a Single HIV, HBV, or HCV-contaminated Needlestick or Sharp Instrument Injury

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<tr>
<td>HBV</td>
<td>6% - 30%</td>
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<td>HCV</td>
<td>1% - 10%</td>
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<td>HIV</td>
<td>0.3%</td>
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Source: Exposure Prevention Information Network (EPINet) Data Reports. International Health Care Worker SaFeCty Center; University of Virginia. 1998.


Prevent Needle Sticks

Preventive Devices

The devices involved in needlestick injuries—such as syringes and intravenous (IV) equipment—are regulated by the Food and Drug Administration (FDA). More than 50 products with features designed to prevent needlestick injuries have so far been cleared for marketing by FDA. In addition to IV connectors, these devices include needle guards, sheathed syringes, needle-recapping products, blood-drawing devices, IV catheters, and needleless injection devices. Pilot studies conducted at 10 hospitals in New York state in 1990 and 1991 found that needlestick injuries declined in a range of from 75 to 94 percent in the hospitals using these preventive devices. Preventive devices fall broadly into two categories: those providing “passive,” or automatic, protection, and those with a safety mechanism that must be activated by the user. Several studies have found that devices providing passive protection are both more effective and more acceptable to healthcare workers than those that require the user to activate the safety feature.

Safe Sharps Disposal

Hospital studies also show that as many as one-third of all sharps injuries have been reported to be related to the disposal process. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture resistant containers for disposal. The puncture-resistant containers should be located as close as practical to the area where the sharps are used.

All healthcare workers should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices:

- during procedures
- when cleaning used instruments
- during disposal of used needles
- when handling sharp instruments after procedures

To prevent needlestick injuries, avoid:

- Recapping by hand
- Purposely bending or breaking by hand
- Removing syringes once they have been disposed
- Manipulating by hand

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