

Changing injury trends related to diabetes and insulin injection

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Lessons learned from EPINet®.

Editor’s note: *This article is the first in a two-part series brought to you in partnership with the International Safety Center. Watch for the next article on building programs to reduce sharps injuries for insulin injection in a future issue.*

IN THE UNITED STATES, the Centers for Disease Control and Prevention estimates that more than 30 million people live with diagnosed or undiagnosed diabetes, and the American Diabetes Association estimates that 1.5 million Americans are newly diagnosed with diabetes every year. Increasing rates of diabetes, especially insulin-dependent type 2 diabetes, translates into more injection devices (both syringes and multidose pen needles) in all healthcare settings, which is starting to manifest as increased rates of needlesticks to nurses.

According to the International Safety Center’s Exposure Prevention Information Network (EPINet) data from 2012 to 2016, injuries from disposable syringes make up most needlesticks (28.1%), and of those, 19.5% are from insulin syringes. Nearly 95% of all injuries from insulin syringes occurred to nurses, and more than 90%

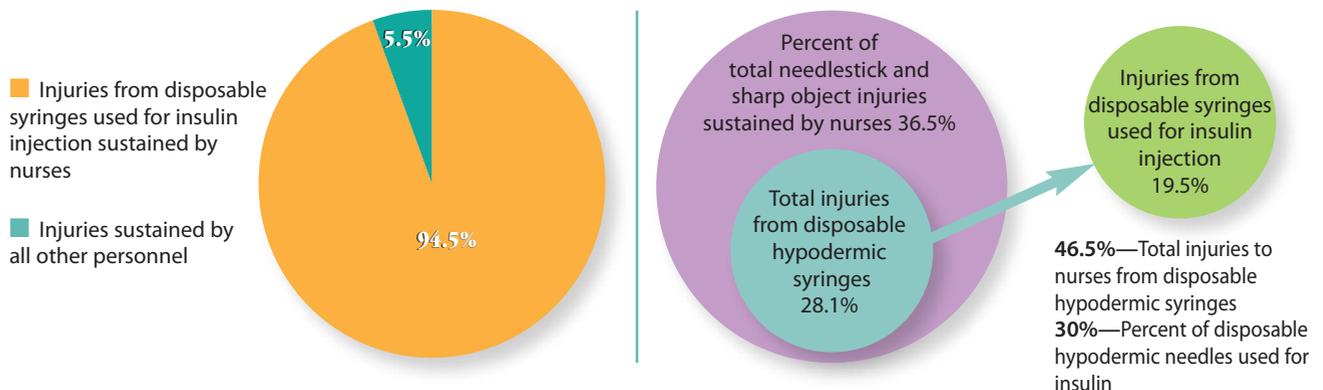
of those recorded by EPINet hospitals occurred in patient or exam rooms.

The Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens standard (BPS) (29 CFR 1910.1030), as modified by the 2000 Needlestick Safety and Prevention Act, requires the evaluation and use of safety-engineered medical devices for the sole purpose of reducing injuries from contaminated needles. Safety-engineered designs of disposable syringe needles include sheaths and covers, retractable and blunt needles, and those that are single-handed and intuitive to use. You’ll also find designs for multidose pens, which have two sharp ends—on the patient or front end and on the device or back end.

The OSHA BPS requirements include involving frontline nonmanagerial staff members in the evaluation of disposable insulin syringes and pens to ensure safety devices will be used and that safety features will be activated. EPINet data indicate that although 35.3% of devices with safety mechanisms were used in the last 5 years, only 34.6% were activated. Increasing safety feature activation protects the device user as well as those downstream who may encounter it, including environmental services workers, other members of the clinical team, and facility visitors.

Now that you know the facts, here are some steps for protecting yourself and those around you from needlestick injuries.

EPINet needlestick and sharp object injury summary data, 2012–2016



Source: International Safety Center Exposure Prevention Information Network (EPINet®) Needlestick and Sharp Object Injury Summary Data; 2012-2016.

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Select safer devices and practice more safely

Consider:
Because hepatitis C is the leading cause of infectious disease death in the baby boomer population and this age group is disproportionately affected by type 2 diabetes, preventing needlesticks and occupational exposure to bloodborne pathogens is more important than ever.

Take Action:
On your unit or in your care environment, participate in the evaluation of devices that include safety features for disposable syringes used for insulin injections as well as needles used on multidose pens.

Consider:
Needlesticks from needles and disposable syringes used for subcutaneous injections and insulin delivery are the most prevalent type of injury.

Take Action:
Be diligent and stay alert when delivering insulin and when you're in the room with someone else who is.

Consider:
Injuries frequently occur to a user's nondominant hand when pinching the skin to prepare for a subcutaneous injection.

Take Action:
Ditch the pinch and select the shortest needle possible to minimize the need for a skinfold. Simplifying the injection technique reduces the risk of needlestick and bilateral injuries.

Consider:
More than 25% of needlesticks and sharps injuries occur to those who aren't the original user of the device, such as environmental services workers, waste haulers, and laundry personnel.

Take Action:
Activate the device's safety mechanism or consider using pen needles with passive safety features to ensure the needle is protected after use and during and after disposal.

Consider:
Needles attached to multidose pens have two sharp ends—one on the front or patient end and one on the device or back end.

Take Action:
Learn about newer device designs that incorporate safety features to the front and back ends of multidose pens.

Participate

Almost 95% of needlesticks from disposable syringes used for insulin injection are sustained by nurses. By participating in the evaluation of safety devices, consistently activating safety features, and improving your technique, you can help prevent injuries to yourself and others. ★

The authors work at the International Safety Center (InternationalSafetyCenter.org). Hogan Mitchell is president and executive director. Ginger B. Parker is vice president and chief information officer.

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