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OSHA Seeks Input On Safer Needle Devices In Bloodborne Pathogens Review

As part of a review of its Bloodborne Pathogens Standard, the Occupational Safety and Health Administration is seeking input from manufacturers on the latest improvements in safe needle design.

The current version of the standard, issued in 2001 following passage of the Needlestick Safety and Prevention Act, calls for employers to select safer needle devices and to involve nurses, doctors and other health workers in identifying and choosing those technologies. The goal is to prevent needlestick injuries and thereby protect against the accidental spread of Hepatitis B virus, HIV and other pathogens among workers who draw blood from patients.

A May 14 request for public comment seeks input on recent technological advances in needlestick prevention, along with information on any medical developments and treatment protocols for needle and sharps safety that have come about since 2001. These will be examined by OSHA, with an eye to further enhancing worker protection. The comment period closes Aug. 12.

The current standard prohibits bending, recapping or removing contaminated needles to render them less dangerous. The standard also bans the shearing or breaking of contaminated needles.

OSHA Hygienist Cites Passive Safety Design Need

These prohibitions point to the need for more passive designs for needle-safety devices, according to Amber Hogan Mitchell, a senior industrial hygienist at OSHA and the agency's National Bloodborne Pathogens Coordinator.

In a 2009 report published in Infection Control Today, Mitchell noted that the device industry has produced multiple generations of safety designs that require the user to actively slide a sheath, flip a clip, advance a plunger, or add an extra aggressive push.

"Today, there are very few safety-engineered medical devices that require no active step to make a device safer during use, after use and prior to disposal," Mitchell wrote.

She added, "Safety devices pre-activated before clinical use that provide automatic or passive sharp encasement during the clinical risk window may be more effective."

One improvement in passive safety designs is being offered by ClearView Patient Safety Technologies, says Lloyd Fischel, the firm's managing director.

At Elsevier's IN3 East conference in Boston June 10-11, Fischel discussed the advantages of ClearView's ***V.E.I. Solution*** technology, which he said improves on earlier designs found in Greiner's ***Visio Plus*** flashback needle, Terumo's ***Venoject*** flashback needle, BD's ***Vacutainer*** flashback needle and B Braun's ***Introcan Safety*** IV catheter.

The designs from these other companies are good at providing vein entry indication (the "flashback" feature), so that nurses can see that they have hit the proper target when probing for vein entry, thus preventing the need to withdraw the needle and probe for a vein a second time.

The technologies "prevent the last bastion of accidents, needlestick injuries that occur before the draw in blood collection," Fischel said.

ClearView's V.E.I. Protects Before And After Draw

But while these companies "offer needles that provide vein entry indication … their latest sheathing needles do not combine this functionality with the new sheathing functions that protect the user from accidental sticks after the draw," Fischel said.

ClearView's V.E.I. (Vein Entry Indication) Solution provides a universal part that can be used to retrofit the other brands – including Greiner's, Terumo's, BD's and B Braun's – to provide both optically verifiable venipuncture control and the needed re-sheathing feature.

Other advantages are that the device allows for a shortened tube length, adapts to all brands including the straight needle and the winged-set or "butterfly" needle device, and does not require training to operate, Fischel said.

"Technologies like ClearView's that provide indication of correct needle placement early in the procedure are certain to lessen the hundreds of thousands of accidents" that occur each year during blood draws, he said.

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