Safe Injection Devices: 10 years out...

Where are the gaps?

Ed Krisiunas
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Objectives
1. Participants will have an understanding of the historical context of the safe injection devices
2. Participants will be able to identify current resources to evaluate safe injection devices
3. Participants will be able to identify sources of current data that discuss the impact of safe injection devices
4. Participants will be able to discuss global implications of safe injection practices.

Disclaimer
- The specific mention or photograph(s) of a safety needle or sharps container or other device or product is not an endorsement of that product or company.

The Federal Needlestick Safety and Prevention Act (H.R. 5178)
Signed into law November 6, 2000
Became fully effective in April 2001

8. Needlesticks and other sharps injuries

TOP 10 HEALTH TECHNOLOGY HAZARDS
FOR 2011
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Hosted by Paul Webber paul@webbertraining.com
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The first recorded fatality from a hypodermic-syringe induced overdose was Dr Wood's wife. The tragedy arose because she was injecting morphine to excess. Later, in the American Civil War (1861-65), an estimated 400,000 soldiers became addicted to opiates after liberal use of morphine injections as well as opium pills. “The returning veteran could be...identified because he had a leather thong around his neck and a leather bag (with) Morphine Sulfate tablets, along with a syringe and a needle issued to the soldier on his discharge...This was called the "Soldier's Disease". (Gerald Starkey)


The first wave...

Development of the disposal hypodermic syringe
Behaviors reported to be associated with NSIs

Sharps Injuries Classification

OSHA
United States Department of Labor
Occupational Safety and Health Administration
www.osha.gov
Bloodborne Pathogen Standard
29 CFR 1910.1030

What is a “Safe Needle Device”?

A “safe needle” device incorporates engineering controls to prevent needlestick injuries before, during or after use through built-in safety features.

• **Passive safety features** remain in effect before, during and after use; health care workers do not have to activate them. Passive features enhance the safety design and are more likely to have a greater impact on prevention.

• **Active devices** require the health care worker to activate the safety mechanism. Failure to do so leaves the worker unprotected. Proper use by health care workers is the primary factor in the effectiveness of these devices.
• **An accessory safety device** is a safety feature that is external to the device and must be carried to or temporarily or permanently fixed to the point of use. This design also is dependent on employee compliance and according to some researchers, is not desirable.

• **An integrated safety design** means that the safety feature is built in as an integral part of the device and cannot be removed. This design feature is preferred.
Risks abound everywhere..

- In preparation
- In delivery
- In disposal

Risk Control Hierarchy

- Eliminate (e.g. Rx patches)
- Substitute (e.g. blunt suture n.)
- Isolate (e.g. nearby sharps container)
- Minimize (e.g. ESD)
- Admin Controls (e.g. no needle removal)
- PPE (e.g. double gloves)

SOLUTION

3 Broad Categories of Safety Devices

- IV Giving Sets
- Injections & Blood-taking
- Sharps disposal safety

Where to find safety products?
www.premierinc.com/safetystore
http://www.isips.org/the_list.php

Important Features of a Safety Device

- Minimizes Risk of BBP Exposure
- Clinically Approved
- Clinically Accepted
- Passive Safety
- Affordable

EVALUATING SAFER NEEDLES
A UNISON GUIDE
“NEEDLE SAFETY AT WORK”

www.unison.org.uk/acrobat/B337.pdf

Training for Development of Innovative Control Technology
USA

www.tdict.org

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Assessment of safety needles/safe needle devices
- During Use:
1. Safety feature can be activated using a one handed technique
2. Safety feature does not obstruct vision of the tip of the sharp
3. Use of this product requires you to use the safety feature
4. Product does not require more time to use than a non-safety device
5. Safety feature works well with a wide variety of hand sizes
6. Device is easy to handle while wearing gloves
7. Device does not interfere with uses that do not require a needle
8. Device offers a good view of any aspirated fluid.
9. Device will work with all required syringe & needle sizes

After Use
10. There is a clear and unmistakable change (audible or visible) that occurs when the safety feature is activated.
11. The safety feature operates reliably
12. The exposed sharp is permanently blunted or covered after use and prior to disposal
13. This device is no more difficult to process after use than non-safety devices

Training
14. User does not need extensive training for correct operation
15. The design of the device suggests proper use
16. It is not easy to skip a crucial step in the proper use of device

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions that you feel should be asked regarding the safety/utility of this product?

U.S. EPINet 2007 Percutaneous Injury Rates
(All injuries are standard of training, all consequences)
Teaching hospitals: average rate: 6.67/100 full-time employees; 7.15%
Non-teaching hospitals: average rate: 4.68/100 full-time employees; 5.78%

Massachusetts Sharps Injury Surveillance System
Occupational Health and Surveillance Program
Massachusetts Department of Public Health

www.mass.gov/dph/ohsp

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Safe injection practices are not optional. They are best protection against infection via administration, giving aid to patients, or the use of medical devices. Injection injuries are a common occurrence; they can result in disease of needlechildren and the need for bloodborne pathogens such as hepatitis, HIV, and other blood-borne infections.

Injection Safety is Every Provider’s Responsibility

INJECTION SAFETY What Every Healthcare Provider Needs to Know

OSHA Inspections 1910.1030 Bloodborne Pathogen Standard

Before the NSPA (1992 – 2000)
- Total # Inspections* – Approx. 17,983
  - Total # unprogrammed – 12,252 (68%)
  - Total # programmed – 5,731 (32%)

After the NSPA (2001 – 2010)
- Total # Inspections* – Approx. 19,750
  - Total # unprogrammed – 10,968 (51%)
  - Total # programmed – 9,782 (49%)

10 Years Later: Where are Now
- Dramatic increase in use of engineered devices
- To what extent?
- Is there backsliding?
- How are HCWS being involved in evaluation and selection

Dr. June Fischer – TDict Nov. 4, 2011

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Directive 2010/32/EU – Implementation Update No 1

The June 2010 publication of EU Council Directive 2010/32/EU, on the prevention of sharps injuries in the hospital and healthcare sector, highlighted the importance of consistently implementing mandatory measures to prevent these potentially fatal injuries. Existing legislation has largely proved to be ineffective. The Directive must be implemented in all Member States by 11 May 2013 at the latest.

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Standards for autodisable syringes
Improved immunization practices
Improved waste disposal practices
New guidelines on phlebotomy

Next meeting: Dubai, UAE 9-11 November 2010

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5 year project – 2004-2009

Part of the USA President’s Emergency Plan for AIDS Relief (PEPFAR) focusing on countries with high HIV prevalence

Contractors:  John Snow, Inc. (JSI), Program for Appropriate Technology in Health (PATH), Academy for Educational Development (AED), and the Manoff Group, Centers for Disease Control and Prevention (CDC) and the US Agency for International Development (USAID) awarded funds for the implementation of “Rapid Interventions to Decrease Unsafe Injections” in 11 countries.

Focus was African and Caribbean countries

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http://portalprd1.jsi.com/portal/page/portal/MMIS_WEBSITE_PGG/MMIS_HOMEPAGE_PG

- Injection safety and infection control
- Interpersonal communication
- Health care waste management
- Commodity supply and logistics
- Advocacy and behavior change communication
- Other injection safety related topics

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Final Comments

- Many products exist in the market place
- Injuries have been reduced
- Find the best product for the application
- Safer devices are generally more expensive than conventional devices, but the total additional cost for a facility is a small fraction of the total costs of appropriate management of occupational injuries.

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COMING SOON ...

30 May  (Free Teleclass – Live Broadcast from CHICA-Canada Conference)
  Benchmark and Performance Measurement
  Speakers: Zahir Hirji, Bridgepoint Hospital (Toronto) and Leslie Forrester, Vancouver Coastal Health
  Sponsored by GOJO (www.gojo.com)

9 June 11 Using Checklists to Prevent Healthcare Associated Infections
  Speaker: Prof. Peter Pronovost, Johns Hopkins University
  Sponsored by: Virox Technologies Inc (www.virox.com)

14 June 11 (Free Teleclass – 10th Anniversary Lecture) Ten Years of Infection Prevention and Control: How Far Have We Come?
  Speaker: Prof. Syed A. Sattar, University of Ottawa
  Sponsored by: Virox Technologies Inc (www.virox.com) and Diversey (www.diversity.com)

15 June 11 (South Pacific Teleclass) Pandemic, Public Health and Emergency Care: Contemporary Trends and New Challenges for Infection Control and Infectious Diseases
  Speaker: Prof Ramon Shabam, Griffith University, Australia
  www.webbertraining.com/schedulep1.php

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