TEAM HUDDLE: Understanding the Responsibility of Infection Prevention and Control: Sharps Safety Part II

Dental infection prevention and control is a system of policies and procedures designed to ensure the use of best practices to enhance safety and reduce the risk of transmitting potentially dangerous microbes from the treatment environment and support areas. An effective infection control program hinges on the understanding of the WHAT, the WHY, and the HOW of the preventive policies and procedures as well as techniques that enhance compliance.

LEARNING OBJECTIVES
After reading this publication, the reader should be able to:

• describe some recommendations and regulations regarding sharps safety.
• describe a basic approach to developing a culture of safety.
• describe some examples of sharps safety.
SCENARIO: The Incident

Dr. Fall’s first patient of the day (Herman) needed endodontic therapy on his upper left canine. After placing a rubber dam and administering local anesthesia, Dr. F began removing the decay which had reached the pulp chamber. Herman could still feel pain, so a second round of injections were given, but this still did not relieve all the pain.

Then Dr. F wanted to inject anesthetic directly into the pulp chamber, so he passed the anesthetic syringe back to his assistant (Page). She capped, removed, and discarded the needle in a sharps container. Then she added a new cartridge and needle to the syringe, uncapped the needle, and passed it back to Dr. F. He picked up hemostats and bent the needle to about a 45° angle to get better access to the tooth.

He then injected anesthetic into the pulp chamber and laid the syringe/needle back on the open instrument cassette atop the bracket table. This alleviated Herman’s pain, and the rest of the procedure went well.

As Page was escorting Herman to the checkout window, a second assistant (Leena) began operatory cleanup. As she was placing some items back into the cassette, she felt a sharp pain in the palm of her hand. She then looked at the cassette and saw the bent needle on the anesthetic syringe protruding upwards. She informed Dr. F who activated their post-exposure management system.

Potential Consequences and Prevention

(See further details under “Strategies” on page 4)

1. Dr. F passed the anesthetic syringe/needle back to his assistant for recapping and disposal.

2. Page added a new cartridge and needle, uncapped the needle, and passed it back to Dr. F.

These breaches violated the infection control principle to:

Avoid contacting blood/body fluids

WHAT: Recognize tasks that may involve exposure to body fluids and use appropriate work practice and/or engineering controls (see the Glossary, page 7) to alleviate the risks.

WHY: It’s important to reduce the risks of exposure to contamination so injury and transmission of potential pathogens will not occur. It’s important to safely manage a potential risk yourself rather than put others at risk. Receiving a sharps injury and going through a post-exposure evaluation is stressful (e.g., waiting for results of blood tests).

HOW: Rather than passing an exposed needle on a reusable syringe to someone for disposal, use work practice and engineering controls to safely recap, remove, and dispose of the needle before passing the needleless syringe. Even passing an unused exposed needle can cause an injury.

3. He then laid the syringe with contaminated, uncapped, bent needle back on the open instrument cassette atop the bracket table.
This breach violated the infection control principle to:

Avoid contacting blood/body fluids

WHAT: Recognize tasks that may involve exposure to body fluids and use appropriate work practice controls and/or engineering controls to alleviate the risks.

WHY: It’s important to safely manage a potential risk to yourself rather than transfer that risk to others. Receiving a sharps injury and going through a post-exposure evaluation is stressful.

HOW: An exposed contaminated needle should never be placed on the instrument cassette or tray. It should be safely recapped, removed, and discarded in a sharps container near where the needle is being used. Needles on trays/cassettes transfer risk to the chairside assistant or someone in the reprocessing room who must retrieve and discard the needle. Removing and discarding a bent needle takes great care because there is greater risk of exposure during rebending it for capping.

4. As Leena placed an item in the cassette, she felt pain in her palm. Then she looked in the cassette and saw the bent needle protruding upwards.

This breach violated the infection control principle to:

Avoid contacting blood/body fluids

WHAT: Recognize tasks that may involve exposure to body fluids and use appropriate work practice controls and/or engineering controls to alleviate the risks.

WHY: It’s important to safely manage a potential risk to yourself rather than transfer that risk to others. Receiving a sharps injury and going through a post-exposure evaluation is stressful.

HOW: Look before you leap! Never bring your hands into close proximity to a container of sharps (e.g., instrument tray, cassette, or sharps container) without first carefully looking at the container. The use of heavy utility gloves during operatory clean-up may reduce the risk of injury to the hands.
STRATEGIES FOR SHARPS SAFETY

**Waste Disposal Safety**

1. Discard used needles as soon as possible after use (e.g., at chairside).
2. If discarding a disposable medical syringe, discard the entire unit without removing the needle.
3. Use puncture-resistant, leak-proof, closable, labeled, sharps containers, and close them before moving to avoid spillage if dropped or jarred.
4. Fill sharps containers only ¾ full to avoid sharps from protruding from the top.
5. Use sharps containers with wide enough bases so they do not easily fall over.

**Chairside Safety**

1. Avoid putting others at risk for an injury.
2. Avoid hand-to-hand passing of sharp instruments to another person; use a neutral zone. If passing must occur, it needs to be done so that the sharp is not passed over the patient's face and so that the operator receives it on the shaft, never at the working end.
3. If using the original needle (now contaminated) for a second injection, be extra careful to avoid contact especially if the thumb is used to retract the cheek for a mandibular injection.
5. Use instruments rather than fingers to retract tissue when giving injections or suturing.
6. Use tongs, cotton forceps, or hemostats (rather than fingers) to pick up sharps from the floor.
7. Use tongs, cotton forceps, or hemostats (rather than fingers) to remove burs from handpieces. Point the bur away from you during removal.
8. Place sharp instruments back in a stable fashion when returning them to cassettes, trays or bracket table.
9. Make sure burs in handpieces are pointing away from operators.
10. Look before reaching for a sharp instrument or instrument package.
11. Do not sharpen contaminated instruments by hand. Alternatively, stabilize the stone on a surface (e.g., with tape) and sharpen using one hand.
12. Reduce the need for chairside sharpening by providing multiples of an instrument (e.g., scalers) in the set-up.
13. Annually screen and evaluate commercially available safer medical devices (e.g., safety syringes/needles, retractable scalpels).

**Needle Safety**

1. Do not leave used needles uncapped in the immediate treatment/working area (e.g., bracket table).
2. Avoid bending, breaking, or manipulating needles before disposal.
3. Do not recap needles by using the hand-to-hand technique. Rather, use a cap holder or the one-hand ed scoop technique.
4. Safely recap used needles before removing from non-disposable syringes.
5. Avoid removing needles from disposable medical syringes before disposal.
6. When removing a capped needle from an anesthetic syringe, handle it very carefully. Remember there is also a needle on the uncapped end used for puncturing the cartridge.

**Instrument Processing Safety**

1. Wear heavy duty gloves during operatory clean-up and instrument processing.
2. Do not reach blindly into a container of sharp items.
3. Consider using instrument cassettes; this reduces the direct handling of the instruments as they remain in the cassette during cleaning, packaging, sterilizing, and distributing to chairside.
4. Load instrument cassettes following the manufacturer’s instructions for use (IFU) to avoid sharps from protruding through the cassette perforations.
5. Carefully check sterilized packages of loose instruments before handling. While any protruding sharp items may not be contaminated with body fluids, they are no longer sterile and can still cause injury.
6. Do not routinely hand-scrub sharp instruments (use ultrasonic or automated washer units).
7. If an instrument must be hand-scrubbed on occasion, use a long-handled brush while the instrument is submerged.
8. Do not place loose sharp instruments into the ultrasonic cleaner or instrument washer/washer-disinfector. Use manufacturer's IFU for loading (e.g., use a basket or cassette rack to avoid direct contact with sharps).

**SAFETY FIRST**
**What’s Wrong With This Picture?**
Can you identify the breach(es) in sharps safety and infection prevention in this photo of a dental treatment procedure?

**Answer:** The anesthetic needle has been uncapped too soon prior to clinician positioning and delivery of the dental anesthetic injection, risking contamination of the needle prior to injection and risking sharps injury to all. The patient has not been given protective eyewear. The clinician and dental assistant are not wearing protective eyewear. The clinician’s long-sleeved protective clothing is not properly donned and the dental assistant is not wearing protective clothing. The long-sleeved protective clothing is not properly donned and the dental assistant is not wearing protective clothing. The dental assistant, making orientation of the needle prior to injection and handing sharps directly to the clinician has not been properly trained in infection control and sharps management.

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**Educational Spotlight**

**Do others rely on YOU to keep current on infection control?**

OSAP can help! Join us at OSAP’s annual educational conference and place yourself among colleagues who share like-minded interests and job roles in the critically important area of safe dental care.

This richly constructed conference provides world-class education with valuable networking activities and you can customize your experience at OSAP 2019. Register today! Conference details at www.osap.org/2019AnnualConf

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Questions about the program, logistics, or registration? Email: Office@OSAP.org
Or call: +1 (410) 571-0003 in the US & Canada: +1 (800) 298-6727

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**New this year!** OSAP has partnered with Indian Health Services (IHS) to offer an exclusive pre-conference dental infection prevention and safety program May 29-30 for IHS/Tribal Health Organizations (including Tribal Urban Clinics) only.

Need help describing why you should attend? Click to download a justification letter.

OSAP appreciates the commitment of our sponsors in supporting the safestdentalvisit™
Take the Micro-Learning Silent Video Challenge!

Can you identify the actions in this short video that breach sharps safety or infection control? Challenge your knowledge and compare to the lesson below.

https://www.osap.org/2019-04video

The Scenario:
Dental anesthetic injection

TEAM HUDDLE DISCUSSION GUIDE

1. Are you aware of the regulations regarding sharps safety?
2. Is your facility maintaining a culture of safety?
3. Are you managing sharps safely at chairside, during instrument processing, and during waste disposal?

Links to Resources


KEY TAKEAWAYS

1. Know what tasks have a risk of sharps injury.
2. Review sharps safety procedures.
3. Be aware of recommendations and regulations regarding sharps safety.
Questions for Online Quiz

1. What is OSHA’s required written exposure determination?
   a. A list of employees who have had an occupational exposure
   b. A list of the source patients involved in occupational exposure of employees
   c. A list of employee tasks and procedures in which occupational exposure can occur
d. A list of the types of occupational exposure incidents experienced by the employees

2. Developing a culture of safety involves: ensuring that there is a commitment to safety at all levels of the organization, beginning with management; involving employees in planning and implementing activities that promote a safe healthcare environment; identifying and removing injury hazards in the work environment; developing communication and feedback links to increase safety awareness; and
   a. involving patients to review office safety procedures.
b. promoting individual accountability.
c. having the CDC approve the plan.d. having OSHA approve the plan.

3. What regulation requires consideration and implementation of commercially available safer medical devices?
   a. Environmental Protection Agency mandate
   b. Food and Drug Administration medical device clearance system
c. Occupational Safety and Health Administration Bloodborne Pathogens Standard
d. Association for the Advancement of Medical Instrumentation rules

4. Sharps containers should be puncture-resistant, leak-proof, labeled and
   a. closable.
b. able to be disinfected.
c. reusable after emptying.d. made of see-through material.

5. What should the dentist do with an anesthetic syringe and needle once it has been determined that additional anesthesia is not needed?
   a. Remove the needle, recap it, and place it in the instrument tray or cassette
   b. Recap the needle, remove it from the syringe, and place it in a near-by sharps container
   c. Pass the syringe and needle to the assistant for recapping and disposal of the needle
d. Place the entire syringe and needle in the instrument tray or cassette for disposal in the instrument processing room

6. How should one document the consideration of safer medical devices?
   a. Send a letter to the local or Federal OSHA
   b. Contact the appropriate State Department of Health
c. Add the written information to the Exposure Control Plan
d. Inform the manufacturer of the medical device considered

7. When should one document the consideration of safer medical devices?
   a. Monthly
   b. Bi-weekly
c. Every six months
d. Annually

8. How do you document that an exposure determination has been completed?
   a. Send a letter to the local or Federal OSHA
   b. Add the written information to the Exposure Control Plan
c. Contact the appropriate State Department of Health
d. Inform the CDC

9. Who should evaluate safer medical devices being considered for possible use in the practice?
   a. Several patients
   b. Everyone responsible for direct patient care
c. The employer alone should evaluate the devices
d. Manufacturer’s representatives of the device(s) being considered

10. Which of the following tasks should be performed?
    a. Fill sharps containers only ¾ full
    b. Remove the needle from a disposable medical syringe before disposal
c. Bend a used needle before disposal so no one else can use that needle
d. Use fresh exam gloves for operatory clean-up and instrument processing

Glossary

**Engineering controls**: Controls that that isolate or remove the bloodborne pathogens hazard from the workplace (e.g., sharps disposal containers, self-sheathing needles).  

**Work practice controls**: Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).
Moving Forward!
Updates on the New Dental Infection Control Credentialing Program

The Organization for Safety, Asepsis and Prevention (OSAP), Dental Assisting National Board, Inc. (DANB) and the Dental Auxiliary Learning and Education Foundation (the DALE Foundation) are collaborating on a multi-year dental infection control education program and two professional certifications.

The initiative establishes three main elements:

- **OSAP-DALE Foundation Dental Infection Prevention and Control Certificate Program™**
  — A standardized dental infection control educational program

- **Certified in Dental Infection Prevention and Control™ (CDIPC™)**
  — A clinically-focused professional certification

- **Dental Industry Specialist in Infection Prevention and Control™ (DISIPC™)**
  — An industry (dental trade)-focused professional certification

These collaborative initiatives advance the organizations’ missions of enhancing patient and practitioner safety.

For more information, visit:

[https://dentalinfectioncontrol.org](https://dentalinfectioncontrol.org)

FROM THE Editor’s Desk

The CDC has some great sharps safety teaching tools in the form of:

- a brochure (Sharps Safety and Healthcare Professionals),
- a poster (Let’s get to the point, sharps safety begins with you), and
- several Power Point slide sets.

[https://www.cdc.gov/sharpsafety/tools.html](https://www.cdc.gov/sharpsafety/tools.html)

In Case You Missed This!

Below is a CDC reference and link to current information on hepatitis B including immunizations and post-exposure prophylaxis in occupational settings.


[https://www.cdc.gov/mmwr/volumes/67/rr/rr6701a1.htm?cs_cid=rr6701a1_w](https://www.cdc.gov/mmwr/volumes/67/rr/rr6701a1.htm?cs_cid=rr6701a1_w)