COVID-19 and HAI Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

June 23rd , 2023

Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to **All Panelists**
- Slides and recording will be made available later
- For continuing education credit, complete evaluation survey upon end of webinar
  - Must be registered individually to receive credit

IDPH
Illinois Department of Public Health

Agenda

- Upcoming Webinars
- Ensuring Safe Injection and Point of Care Testing Practices
- Open Q & A

Slides and recording will be made available after the session.

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Upcoming Infection Prevention and Control Q&A

1:00 pm - 2:00 pm

Date	Infection Control Topic	Registration Link
Friday, July 7th	Wound Care	https://illinois.webex.com/weblink/register/rcbe47013fffd46fe1c9d7c7202e916ff
Friday, July 21st	Healthcare Laundry	https://illinois.webex.com/weblink/register/r1d0d83d188662760ff7fe7798dbba0d3
Friday, August 4th	Training, Audit, Feedback	https://illinois.webex.com/weblink/register/rb6431b64bf7a47cbb0ff408c415bba8f
Friday, August 18th	Respiratory Protection	https://illinois.webex.com/weblink/register/r0f40c1aff7aad66e31b0c07bb567b898

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Ensuring Safe Injection and Point of Care Testing Practices

June 23, 2023

Mary Alice Lavin, MJ, BSN, RN, CIC, FAPIC

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Disclosure

Mary Alice Lavin has no relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Objectives

Define safe injection and point of care testing practices.

Identify resources for safe injection and point of care testing practices.

Recognize unsafe practices that present a risk for bloodborne pathogen exposure.

What Are Safe Injection Practices?

- Part of Standard Precautions
- Included in the Bloodborne Pathogen Standard
- Safe disposal

https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf
https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030
Selecting, Evaluating & Using Sharps Disposal Containers | NIOSH | CDC

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What Are Safe Injection Practices?

- Part of Standard Precautions
  - A safe work practice to prevent healthcare worker sharps injuries
  - To protect patient from viral and bacterial pathogens
  - To protect the patient from organisms known to colonize the oropharyngeal area

https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf
https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5238a1.htm

Unsafe Injection Practices

- The absence of aseptic technique
  - Accessing a vial without disinfecting the septum
  - Lack of hand hygiene
  - Storing medications and/or administration supplies within 3 feet of a sink
  - Comingling with soiled or inadequately disinfected equipment

Unsafe Injection Practices

- Reinserting a used needle into a multi-dose vial or bag of fluid.
- Reusing a needle and/or syringe for intravenous medication for more than one patient.
- Diversion of a narcotics
  - Blood exposure
  - Substitution with an unsterile product

Unsafe Injection Practices

Risk from Insulin Pens

- Studies have shown there is regurgitation of blood into the cartridge.
- Delay of dispensing from the pharmacy prompts work around with needle change.

https://www.cdc.gov/injectionsafety/clinical-reminders/insulin-pens.html
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5565125/

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Multi-dose Vial Practices and Terms

- An opened or accessed (e.g., needle-punctured) multi-dose vial should be dated and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date.
- A multi-dose vial that has **not** been opened or accessed (e.g., needle-punctured), should be discarded according to the manufacturer's expiration date.
- The manufacturer's expiration date is the date after which an unopened multi-dose vial should not be used.
- The beyond-use-date refers to the date after which an opened multi-dose vial should not be used. The beyond-use-date should never exceed the manufacturer's original expiration date.

United States Pharmacopeia (USP) 797: Guidebook to Pharmaceutical Compounding – Sterile Preparations. Second Edition, June 1, 2008.
https://www.cdc.gov/infectioncontrol/pdf/icar/IPC-mod6-injection-safety-508.pdf

Interrupting Transmission

- One needle, one syringe, only one time
- Using single dose vials and pre-filled flush syringes
- Labeling multi-dose vials with the date opened
  - Discard open multi-dose vials that are not dated
- Drawing up medication from multi-dose vials in the medication area

https://www.cdc.gov/injectionsafety/one-and-only.html
https://www.cdc.gov/injectionsafety/pntoolkit/index.html

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Interrupting Transmission

- Prevent contamination of medications and supplies
  - Delineating a clean area in the medication preparation area
  - Preventing splash contamination from sinks
- Education on aseptic technique
  - One and Only campaign
  - Competency assessments
- Medication management and administration audits with feedback

https://www.cdc.gov/injectionsafety/one-and-only.html
https://www.cdc.gov/injectionsafety/pntoolkit/index.html

THE PROVIDER

DO YOU MULTI-DOSE?

A SINGLE-DOSE VIAL (SDV) is approved for use on a **SINGLE** patient for a **SINGLE** procedure or injection.

SDVs typically lack an antimicrobial preservative. Do not save leftover medication from these vials. Harmful bacteria can grow and infect a patient.

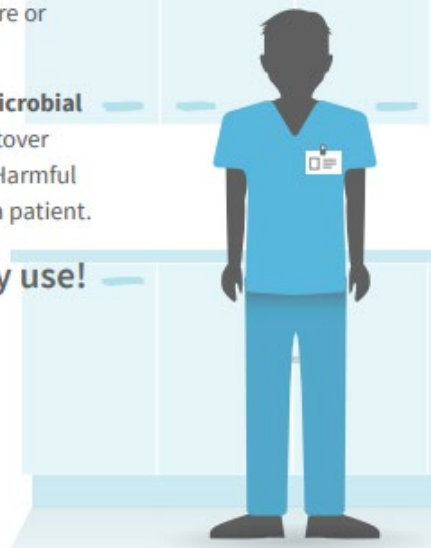
DISCARD after every use!

A MULTIPLE-DOSE VIAL (MDV) is recognized by its FDA-approved label.

Although MDVs can be used for more than one patient when aseptic technique is followed, ***ideally even MDVs are used for only one patient.***

MDVs typically contain an antimicrobial preservative to help limit the growth of bacteria. Preservatives have no effect on bloodborne viruses (i.e. hepatitis B, hepatitis C, HIV).

Discard MDVs when the beyond-use date has been reached, when doses are drawn in a patient treatment area, or any time the sterility of the vial is in question!



SIZE DOES NOT MATTER!

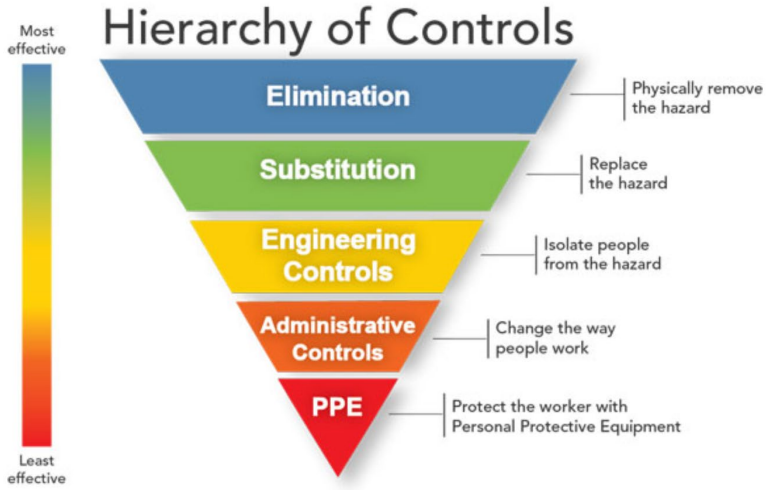
SDVs and MDVs can come in any shape and size. ***Do not assume*** that a vial is an SDV or MDV based on size or volume of medication. ***ALWAYS check the label!***

www.cdc.gov/injectionsafety/1anonly.html

https://www.cdc.gov/injectionsafety/PDF/Injection-Safety-For-Healthcare-P.pdf

What Are Safe Injection Practices?

- Included in the Bloodborne Pathogen Standard
  - Part of the Occupational Safety and Health Administration (OSHA) Hierarchy of Controls



The idea behind this hierarchy is that the control methods at the top of graphic are potentially more effective and protective than those at the bottom. Following this hierarchy normally leads to the implementation of inherently safer systems, where the risk of illness or injury has been substantially reduced.

https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030

https://www.cdc.gov/niosh/topics/hierarchy/

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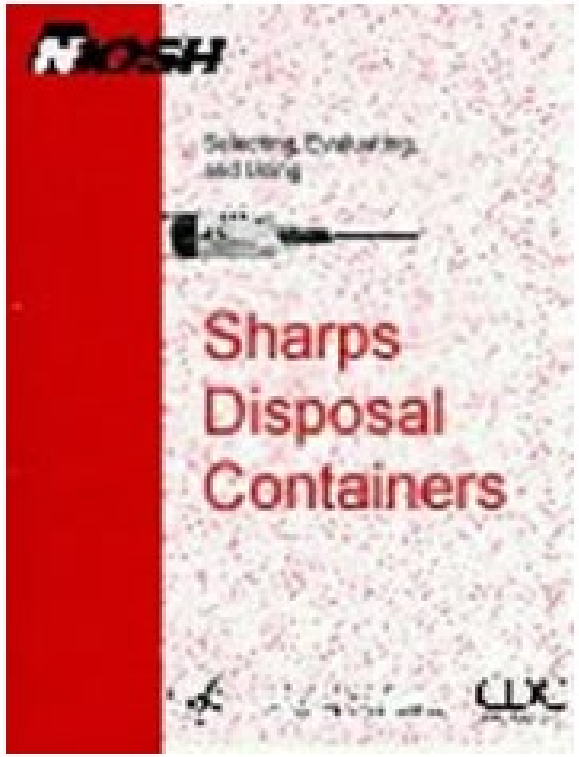
What Are Safe Injection Practices?

- Safe disposal
  - Functionality
  - Accessibility
  - Visibility
  - Accommodation



https://www.cdc.gov/niosh/docs/97-111/default.html

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Sharps Container Installation

- Based on a formula using the average height of a female and eye level for sitting or standing.
- Standing workstation – 52-56 inches above the standing surface.
- Sitting workstation – 38-42 inches above the floor.

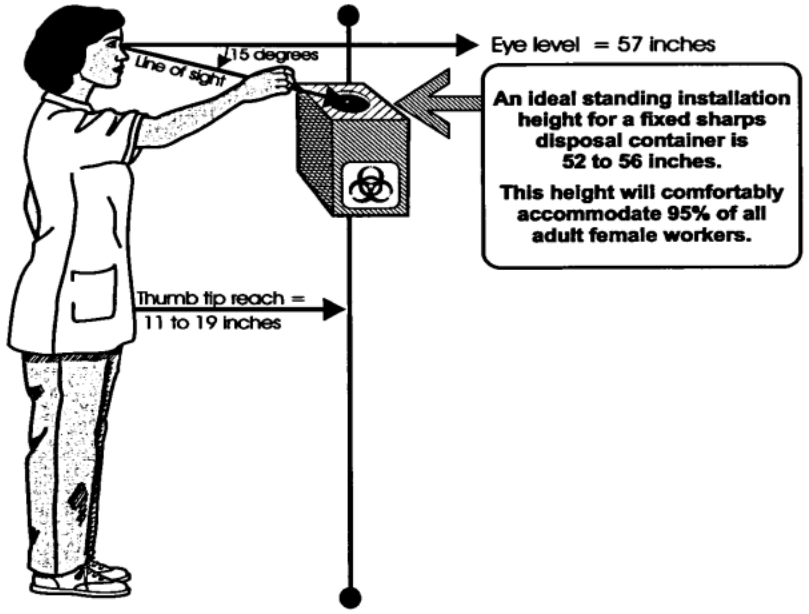

Figure 1. Ergonomic installation height for a wall-mounted work station.

https://www.cdc.gov/niosh/docs/97-111/default.html

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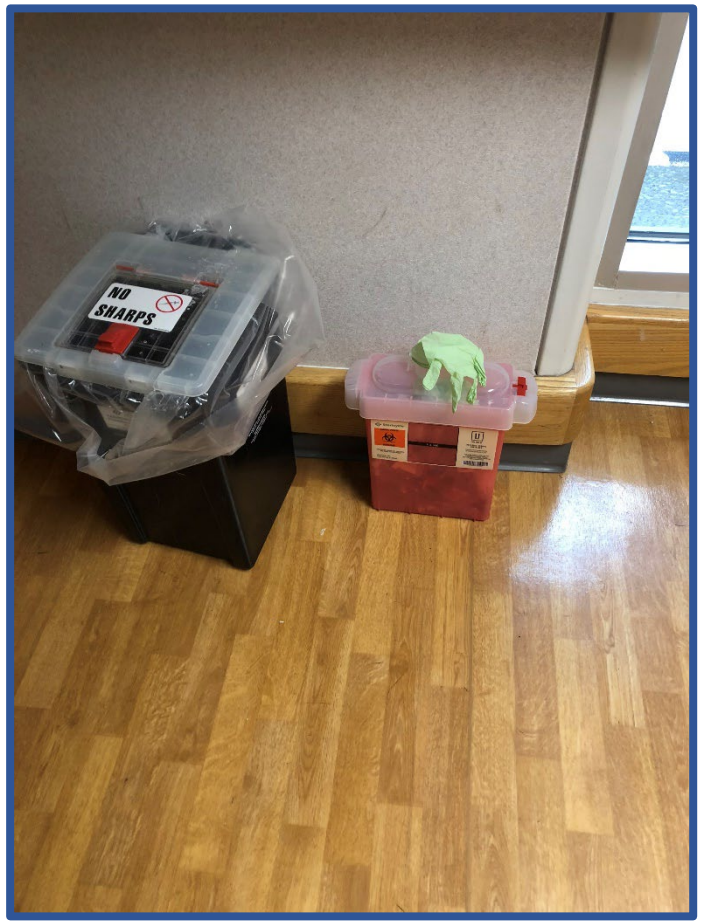
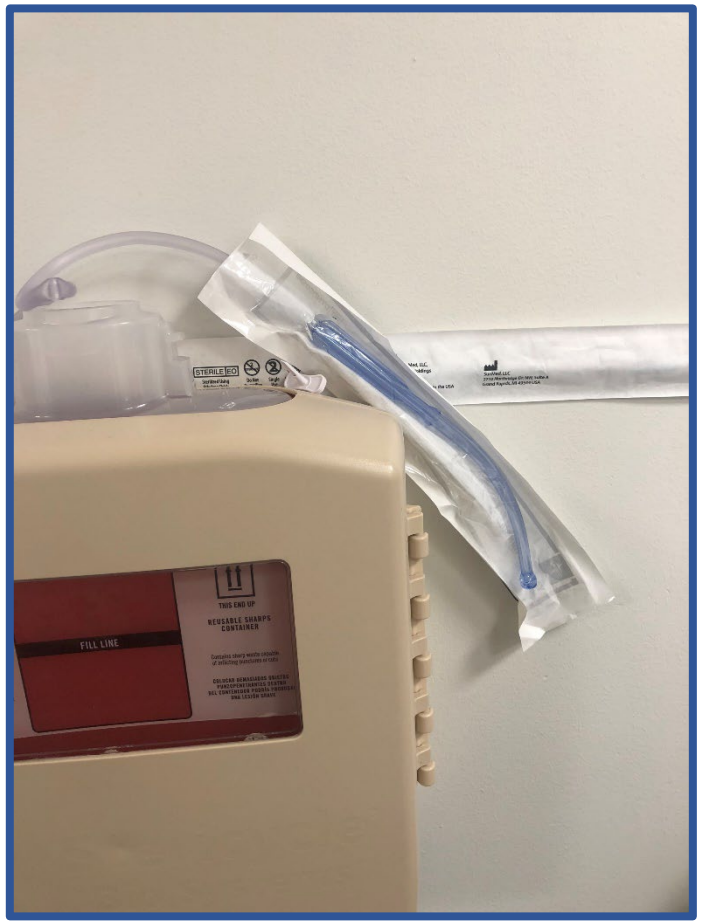
Sharps Container Security and Accessibility





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Observing Practice - ICAR Module Tool

Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings – Version September 2022

Module 6. Injection Safety Facilitator Guide

This form is intended to aid an ICAR facilitator in learning about facility policies and procedures for handling controlled substances and performing sterile compounding, if applicable (Part A) and guide observations for preparation and administration of injectable medications (Part B).

Injection safety includes practices intended to prevent transmission of infectious diseases between one patient and another, or between a patient and healthcare provider, and also to prevent harms such as needlestick injuries.

Examples of practices that have resulted in transmission of viruses (e.g., hepatitis C virus (HCV), hepatitis B virus (HBV)), bacteria (e.g., methicillin-resistant *Staphylococcus aureus* (MRSA)) and/or other pathogens (e.g., fungi) include:

- **Using the same syringe to administer medication to more than one patient, including when the needle was changed or the injection was administered through an intervening length of intravenous (IV) tubing ;**
- **Accessing a medication vial or bag with a syringe that has already been used to administer medication to a patient, then using the remaining contents from that vial or bag for another patient;**
- **Using medications packaged as single-dose or single-use for more than one patient;**
- **Failing to use aseptic technique when preparing and administering injections (e.g., preparing injections near sinks or other sources of contamination)**

Note: Additional information on safe injection practices can be found on the CDC website: https://www.cdc.gov/injectionsafety/index.html

Part A. Injection Safety Interview Questions	Rationale and Relevant Guidance	Notes/Areas for Improvement

https://www.cdc.gov/infectioncontrol/pdf/icar/IPC-mod6-injection-safety-508.pdf

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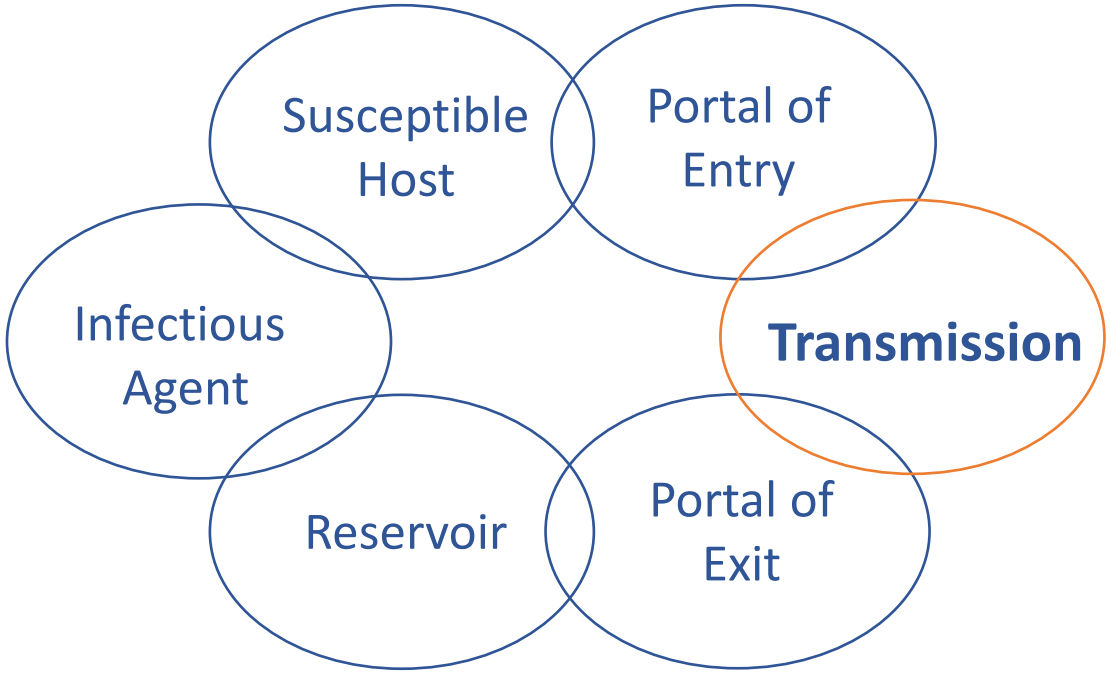
What Are Safe Point of Care Practices?

- Use of single use auto-disabling fingerstick devices
- Dedicating blood glucose meters to individual residents
  - Self monitoring of blood glucose
  - Assisted monitoring of blood glucose
- Following aseptic practices

Point of Care Testing

- Unsafe practices include
  - Reusing fingerstick devices
  - Sharing glucose meters without cleaning and disinfecting between uses
  - Wearing the same gloves to perform fingersticks on multiple patients

The Chain of Infection



All elements must be in place for transmission to occur.

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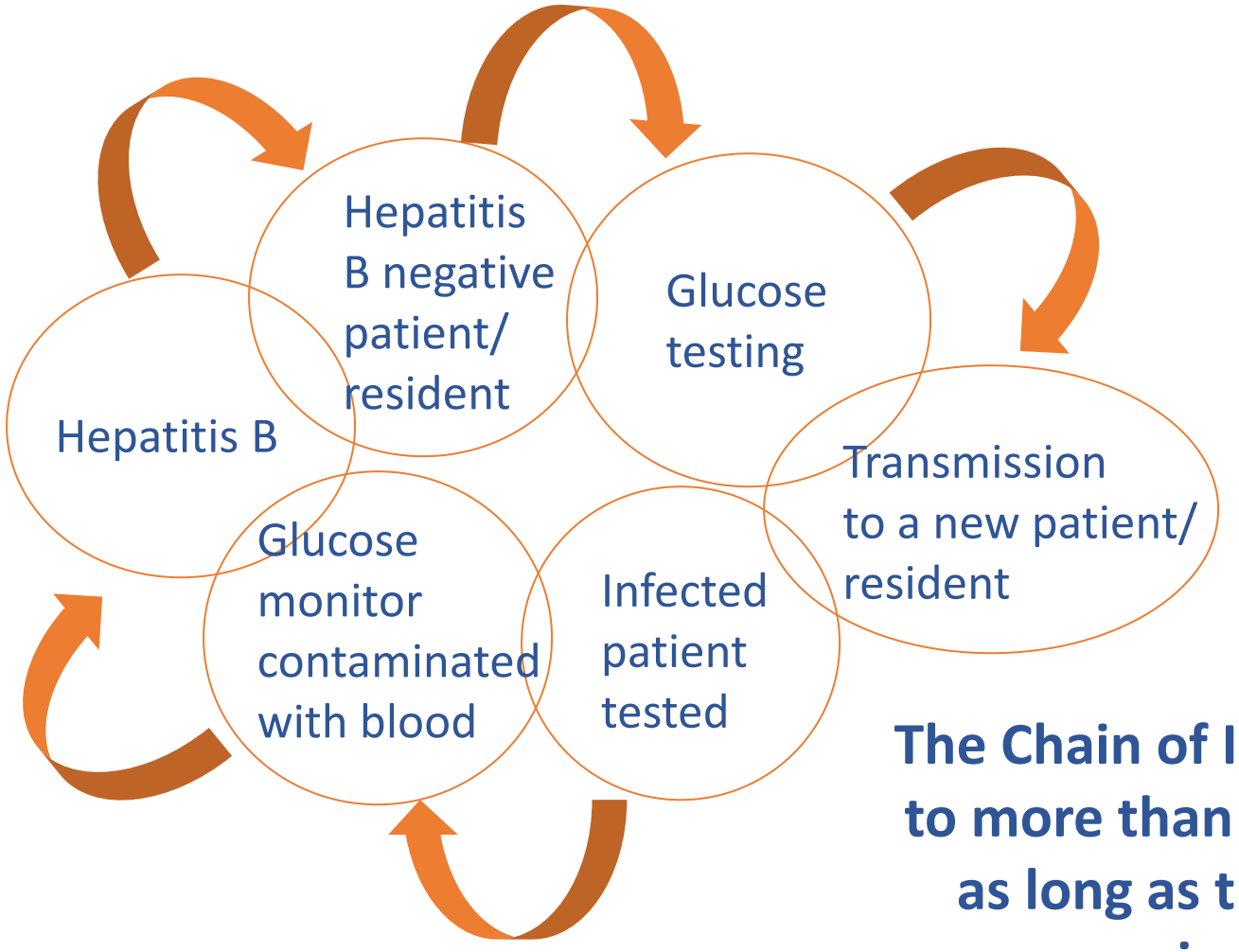
Hepatitis B Transmission During Glucose Monitoring



The Chain of Infection can continue to more than one resident/patient as long as the glucose monitor remains contaminated.

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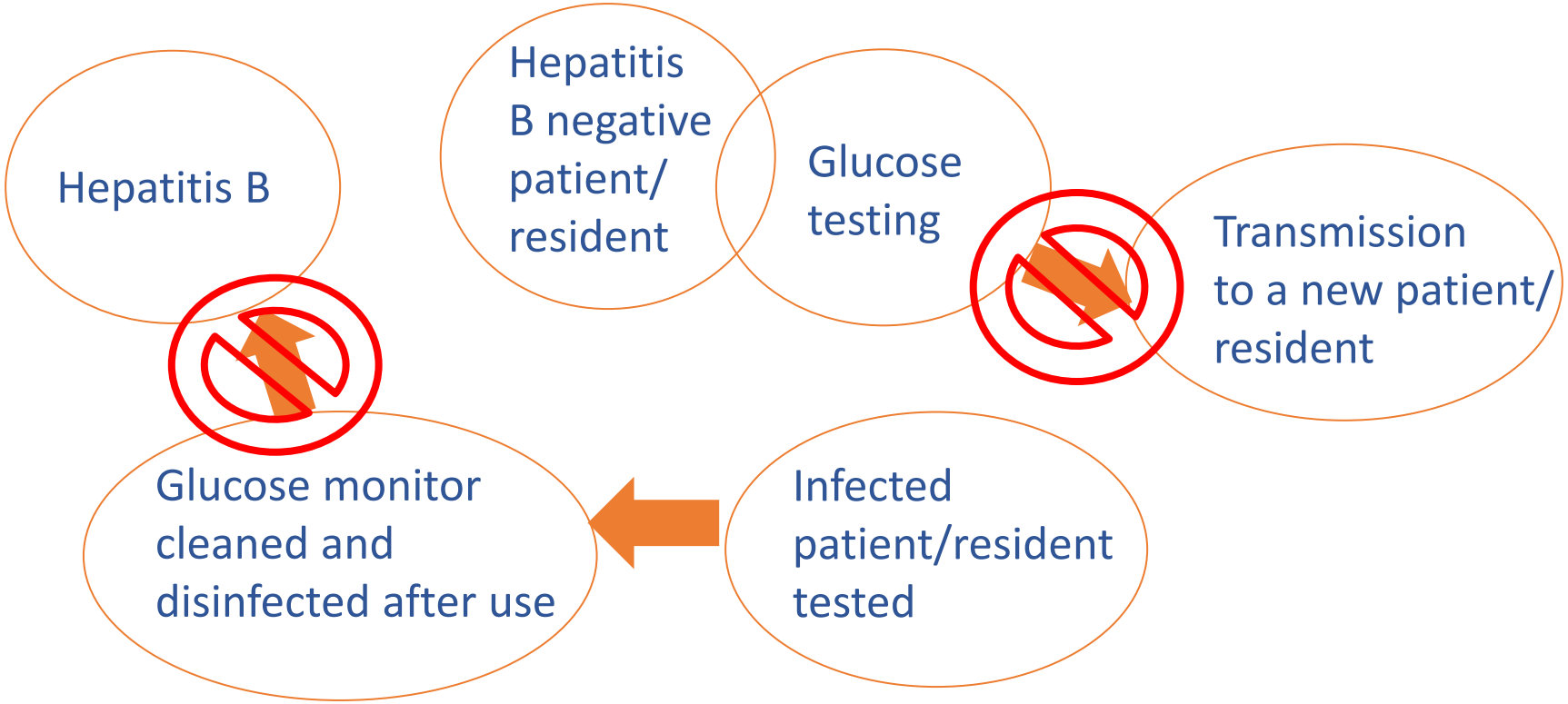
Transmission is interrupted when the monitor is cleaned and disinfected in between patients/residents and the infectious agent (HBV) is removed from the chain of infection.



Without the infectious agent, there is no risk for transmission from the meter.

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Local Outbreak

Acute Hepatitis B Outbreaks Related to Fingerstick Blood Glucose Monitoring in Two Assisted Living Facilities

Catherine A. Counard, MD, MPH, Joseph F. Perz, DrPH, MA,† Purisima C. Linchangco, MPH,* Demian Christiansen, DSc,* Lilia Ganova-Raeva, MS, PhD,‡ Guoliang Xia, MD,‡ Steven Jones,* and Michael O. Vernon, DrPH**

"Facility A nurses indicated that they were not aware that HBV could be transmitted from resident to resident during fingerstick blood glucose monitoring."

"Facility B nurses were not aware that HBV could be transmitted from resident to resident during fingerstick blood glucose monitoring."

A nurse who cared for the HBV-infected residents worked at multiple facilities and carried a glucometer with her between facilities for use on residents, gloves were not worn while performing fingerstick testing, hands were not washed between residents, the spare glucometer was often used rather than dedicated resident equipment, and the glucometer was not always disinfected between residents.

https://doi.org/10.1111/j.1532-5415.2009.02669.x

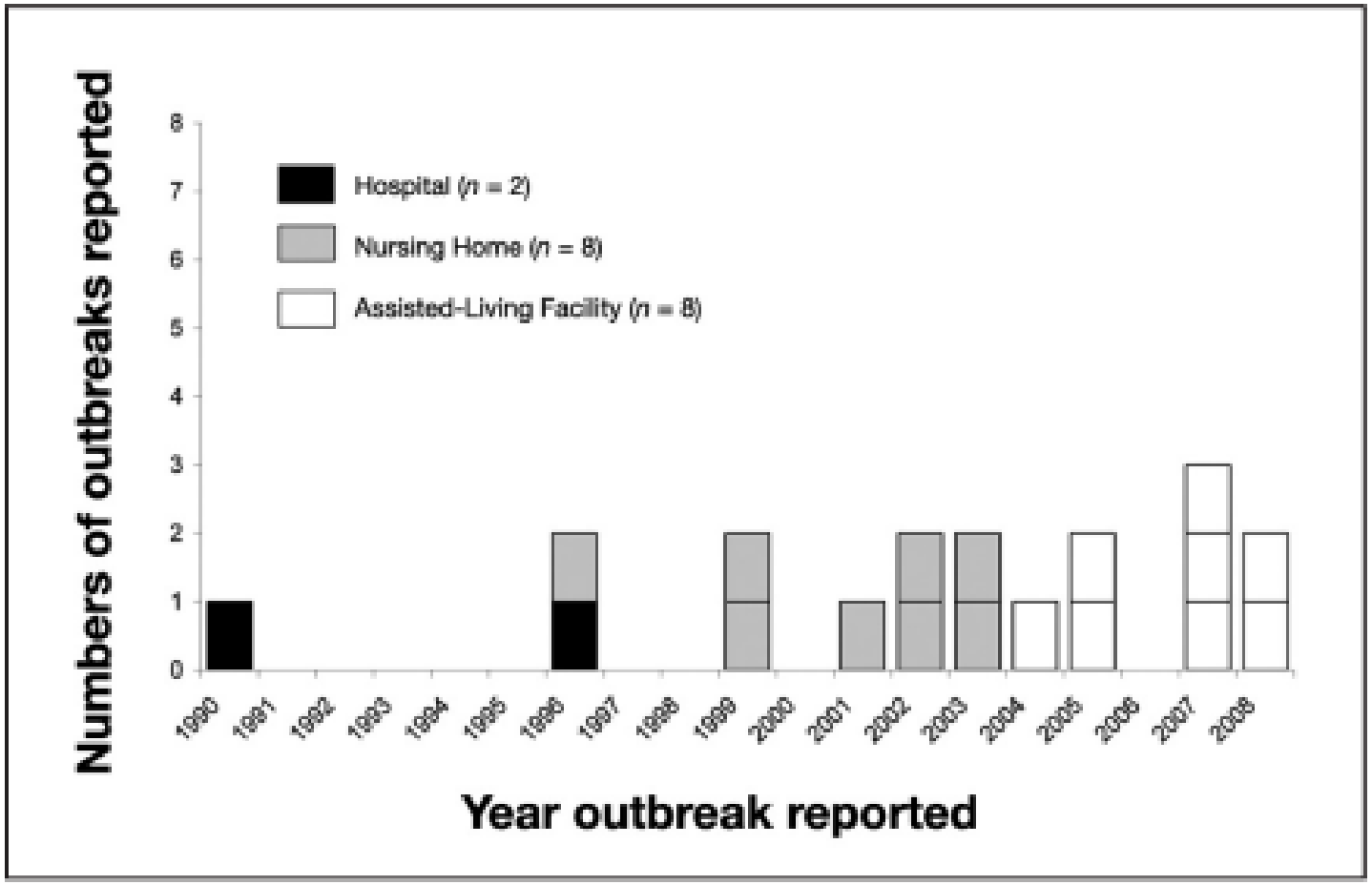

Figure 1. Reported outbreaks of HBV infection associated with blood glucose monitoring in the United States, 1990–2008.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771515/pdf/dst-03-0283.pdf

Center for Medicaid, CHIP, and Survey & Certification/Survey & Certification Group

Ref: S&C: 10-28-NH

DATE: **August 27, 2010**

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: **Point of Care Devices and Infection Control in Nursing Homes**

Memorandum Summary

Infection Control Standards for Nursing Homes at §483.65 - F441 –Determining Compliance: The following practices are deficiencies in infection control:

- Reusing fingerstick devices (e.g., pen-like devices) for more than one resident;
- Using a blood glucose meter (or other point-of-care device) for more than one resident without cleaning and disinfecting it after use.

If a surveyor observes a facility doing either of the above, the surveyor should follow the interpretive guidelines, investigative protocol, and severity determination information at F441 to determine the severity of the deficiency.

Scope & Severity: CMS is revising the example in Appendix PP to make a distinction between (a) reuse of fingerstick devices for more than one resident (immediate jeopardy) and (b) use of a blood glucose meter for more than one resident without proper cleaning and disinfection, so that scope and severity can be correctly assessed.

https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/SCLetter10_28.pdf

Interrupting Transmission

Infection Prevention and Control Basics to Reduce the Risk of Hepatitis B during Blood Glucose Monitoring

- Avoid taking clean supplies from patient to patient.
- When performing finger sticks, perform hand hygiene before putting on clean gloves. Remove gloves and clean hands when finished and in between activities.
- Follow the manufacturer's instructions for use for cleaning/disinfecting the glucose monitor.
  - If the manufacturer does not provide instructions, the glucose meter cannot by shared among residents.

Interrupting Transmission

- Education
  - Safe practices
  - Cleaning and disinfection
  - Competency assessments
- Audits and Feedback
- Environment of Care rounds

https://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html
https://www.cdc.gov/injectionsafety/providers/blood-glucose-monitoring_faqs.html

Provide Safe Resident Care

- Visible blood on a glucose meter presents a resident and staff safety risk.
- All staff using a glucose meter should be able to describe the process for cleaning and disinfecting.
- Disinfecting wipes must be readily available.

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The Burrito Wrap Technique

- Use of a disinfectant wipe with a Hepatitis B claim to clean the meter.
- Wrapping the meter in a disinfectant wipe to allow adequate contact time for disinfection.

NOTE: 70% ethanol solutions are not effective against Hepatitis B and 10% bleach solutions can lead to deterioration of the device.

★ Must follow the manufacturers instructions for use.

https://www.epa.gov/pesticide-registration/list-d-epas-registered-antimicrobial-products-effective-against-human-hiv-1
https://www.epa.gov/pesticide-registration/list-e-epas-registered-antimicrobial-products-effective-against

Observing Practice - ICAR Module Tool

Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings

Module 7: Point of Care (POC) Blood Testing Facilitator Guide

Point of Care (POC) Blood Testing: This form is intended to aid an ICAR facilitator in the review of the types of POC blood testing performed and equipment used by the healthcare facility (Part A) and guide observations (Part B).

An underappreciated risk of POC blood testing is the opportunity for exposure to bloodborne viruses (HBV, hepatitis C virus, and HIV) through contaminated equipment and supplies if devices used for testing (e.g., blood glucose meters, fingerstick devices) are shared.

Unsafe practices during POC blood testing that have contributed to transmission of HBV or have put persons at risk for infection include:

- Using fingerstick devices for more than one person
- Using a POC blood testing meter for more than one person without cleaning and disinfecting it in between uses
- Failing to change gloves and perform hand hygiene after a fingerstick procedure

Note: Additional information on POC blood testing can be found on the CDC website. Infection Prevention during Blood Glucose Monitoring and Insulin Administration | Injection Safety | CDC. While the CDC content focuses on assisted monitoring of blood glucose, the recommended practices apply to other types of POC blood testing.

https://www.cdc.gov/infectioncontrol/pdf/icar/IPC-mod7-POC-blood-testing-508.pdf

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Resident/Patient Notification

- When should notification occur:
  - An unsafe injection practice was identified
  - A lapse in basic infection control might put a resident at risk
  - Infection results from an identified breach
- How should notification occur:
  - Promptly
  - Through a mailed patient notification with a consistent fact-based message
  - Via the media and public health partners

https://www.cdc.gov/injectionsafety/pntoolkit/index.html

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Resident/Patient Notification

- Additional Considerations
  - ➢ Include follow up testing recommendations and arrangements
  - ➢ Consider a dedicated phone line with support
    - Utilize a script to ensure a consistent message
    - Ensure those answering the phone are knowledgeable about the potential risks
    - Stay on message
  - ➢ Provide fact sheets
  - ➢ Don’t argue and acknowledge concern
  - ➢ Involve legal and/or risk management

https://www.cdc.gov/injectionsafety/pntoolkit/index.html

What to include in a letter

- How/where it happened
- Possible symptoms
- Corrective actions taken
- 24-hour contact number
- Assurance that the correct patients are being contacted
- Plan of action/next steps

Key concerns from patients

- What to do next
- Timeframe of disease/testing
- Who's paying for what
- Who's liable
- What disease/how serious
- Whether authorities are contacting the correct patients

Tone of the letter

- Factual, clearly stated
- Apologetic, empathetic
- Personal, urgent
- Soft/neutral
- Accommodating to the potentially infected
- Assuring that things will be taken care of

Source

Schneider et al, J Patient Saf 2013;9;8-12

https://www.cdc.gov/injectionsafety/pntoolkit/section1.html

Summary

Safe injection practices protect healthcare workers and patients.

1

One needle, one syringe, only one time.

Insulin pens are a potential bloodborne pathogens exposure risk.

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Summary

The instructions for use must be followed.

Observe practices.

Training, competency assessment, audits, and feedback are key to safety.

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Open Q&A

Submit questions via Q&A pod to **All Panelists**

Please do not resubmit a single question multiple times

Slides and recording will be made available after the session.

Reminders

- For continuing education credit, please fill out the evaluation survey upon end of webinar

- SIREN Registration
  - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: http://www.dph.illinois.gov/siren

- NHSN Assistance:
  - Contact Telligen: **nursinghome@telligen.com**