

Infection Control Assessment and Response (ICAR) Facilitated Discussion Leader Guide New Jersey Department of Health



The three Infection Control Assessment and Response (ICAR) videos were created to start a dialogue between the ICAR team and healthcare professionals. The videos cover topics included on ICAR assessments that are recognized as important to patient/resident safety to decrease disease transmission but are not always followed in practice. Much of this information is basic infection prevention and therefore taught to healthcare professionals early in their career. However, because of multi-tasking and trying to save time, these basic practices are sometimes not performed.

This guide was created to stimulate discussion among health care professionals. Glucometer use, medication preparation, and injection safety are areas of nursing practice that are separate but have significant overlap. These three videos were developed to assist with identifying poor infection prevention practices and to foster a better understanding of why infection prevention is a key element in reducing disease transmission. We hope that facility “Leaders” (e.g., those responsible for monitoring staff competencies) will find this guide helpful. Please view the videos on the New Jersey State Government YouTube page and then refer to this guide to lead discussion with staff. Prior to your group discussion, consider completion of the Centers for Disease Control and Prevention (CDC) [Injection Safety Checklist](#) to identify opportunities for improvement at the facility.

Video #1: Glucometer

This discussion should take approximately 20-30 minutes.

You just watched a short [video](#) with two different scenarios. The health care professional was tasked with testing the patient/resident’s blood sugar. This is an activity that health care professionals do on a regular basis. Let me ask you a few questions about what you’ve just viewed:

- 1. Can you identify at least three poor practices that the health care professional used in the first scenario?**
 - Not performing hand hygiene before contact with the patient/resident.
 - Not performing hand hygiene after contact with the patient/resident.
 - Not cleaning and disinfecting the equipment/glucometer after using it.
 - Setting the glucometer down in the immediate patient/resident area (e.g., bed, table, tray) without a barrier.
- 2. List at least three things that you learned from watching the video (examples of appropriate responses below):**
 - Perform appropriate hand hygiene before and after patient/resident contact (in this case performing blood sugar testing).
 - Perform hand hygiene and glove change prior to equipment cleaning.
 - Alcohol-based hand rub is the preferential method of hand hygiene, over soap and water in most clinical situations. Soap and water should be used when hands are visibly soiled and is also preferred after caring for a patient/resident with known or

suspected *C. difficile* or norovirus during an outbreak, or if rates of *C. difficile* in the facility are persistently high.

- Clean and disinfect point-of-care equipment, such as glucometers, after each use.
- Clean and disinfect equipment/glucometer according to manufacturer's instructions.
- Use a barrier (e.g., paper towel, plastic cup) between equipment/glucometer and the patient/resident area (e.g., bed, table, tray).

Ask participants the following questions about shared equipment/glucometers:

3. How often is a shared glucometer cleaned and disinfected?

- Sometimes
- Always
- Never

Answer: You should always clean and disinfect a shared glucometer after using it. If you are unsure if it was cleaned and disinfected, you should do so before using it. Blood can be microscopic, and you can't always tell if it is present by just looking. Cleaning and disinfecting a shared glucometer after each use reduces the likelihood of there being blood leftover from earlier testing.

4. What is the facility policy on cleaning and disinfecting glucometers?

- Participants should be told how they may access the facility policies. The facilitator should have the policy available to demonstrate that it is consistent with the manufacturer's recommendations and nationally recognized guidelines.
- If the manufacturer does not specify how the device should be cleaned (e.g., soap and water) and disinfected (e.g., EPA registered disinfectant) then it must not be shared.

The following questions discuss personal protective equipment (PPE), cleaning and disinfection of glucometers, and the preference for dedicated equipment.

5. If a patient/resident is on transmission-based precautions, what is different when monitoring blood glucose?

- The facilitator should emphasize that standard precautions are applied to all patients/residents regardless of their known or suspected infection status. Any blood or body fluid may be infectious.
- Consider what type of infection prevention practices should be used based on the level of anticipated contact with the patient/resident.
- Gloves must be worn during any procedure that involves the potential exposure to blood or body fluids, such as blood glucose monitoring.
- Additional PPE and precautions may include:
 - Contact precautions (e.g., gown, gloves)
 - Droplet precautions (e.g., mask)
 - Airborne precautions (e.g., fit-tested NIOSH-approved N95 or higher-level respirator)

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- Wearing additional PPE, cleaning and disinfecting equipment with additional products, or using dedicated equipment (as is the best practice for glucometers)
6. **Ask participants if they can locate the following in the facility:**
- PPE (i.e., gloves, gowns, masks, eye protection)
 - Alcohol-based hand rub
 - Sharps containers, etc.
 - Are these items readily available?
7. **Ask participants when they were last trained and assessed on how to properly don and doff PPE.**
- Responses may include:
 - New employee orientation/Upon hire
 - Staff in-services
 - Skills day
 - Refresher training, as needed
 - CDC defines competency assessment as the verification of infection prevention competency using knowledge-based testing and direct observation. If direct observation is not included as part of a competency assessment, an alternative method to ensure that healthcare personnel possess essential knowledge, skills, and abilities should be used.

Additional points of interest:

- Insulin pens and lancing devices must never be shared even if the needles are changed. These are single-patient/resident use devices.
- Whenever possible glucometers should not be shared. If glucometers are shared, they must be approved for multiple-patient/resident use and have instructions for cleaning and disinfection.
- Glucometers should be stored in a manner to prevent cross-contamination of other supplies or equipment (e.g., other glucometers, medication, lancets)
- Poor practices associated with disease transmission during glucometer use include:
 - Using fingerstick devices for more than one person
 - Using a blood glucose meter for more than one person without cleaning and disinfecting it in between uses
 - Using insulin pens for more than one person
 - Failing to change gloves and perform hand hygiene between fingerstick procedures
- CDC defines cleaning as the removal of visible soil (e.g., organic and inorganic material) from objects and disinfection as a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects.
- Cleaning and disinfecting may require more than one product and/or multiple steps.
- Staff should be knowledgeable about the contact times and manufacturer's instructions for use of cleaners and disinfectants used at the facility.

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Resources:

Infection Prevention during Blood Glucose Monitoring and Insulin Administration and Frequently Asked Questions (FAQ)

- <https://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html>
- https://www.cdc.gov/injectionsafety/providers/blood-glucose-monitoring_fags.html

Safe Injection Practices Coalition/One & Only Campaign

- <http://www.oneandonlycampaign.org>
- <http://www.oneandonlycampaign.org/content/insulin-pen-safety>
- <http://www.oneandonlycampaign.org/content/cdc-guidelines>
- https://www.cdc.gov/injectionsafety/pdf/sipc_checklist.pdf

Infection Prevention in Outpatient Settings Guide and Checklist

- <https://www.cdc.gov/infectioncontrol/pdf/outpatient/guide.pdf>
- <https://www.cdc.gov/infectioncontrol/pdf/outpatient/guidechecklist.pdf>

Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings – Recommendations of the HICPAC

- <https://www.cdc.gov/hicpac/recommendations/core-practices.html>

Infection Control Assessment Tools

- <https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html>

Video #2: Medication Preparation Areas

This activity should take approximately 10-15 minutes.

You just watched a [video](#) that mentioned that medication should be prepared in a clean designated area or room. Preparing medications in the patient/resident care area increases the chances of the medication or equipment becoming contaminated.

1. What is a result of preparing medication in an unclean area?

- This is a break in aseptic technique. Medication may become contaminated which could lead to the patient/resident becoming ill.
- Microorganisms may be spread from the unclean area to the patient/resident or equipment via cross-contamination.

2. What are the facility policies and procedures on medication preparation?

- Participants should be told how they may access the facility policies. The facilitator should have the policy available to demonstrate that it is consistent with nationally recognized guidelines.
- Questions that the facilitator should be prepared to answer may include:
 - How often is the medication cart/room cleaned?
 - Who is responsible for cleaning the medication cart/room?
 - How does the next shift know if the medication cart/room has been cleaned?
 - Are alcohol-based hand rub and cleaning and disinfecting supplies available in this area?
 - What are the disinfectants manufacturer's instructions for use (e.g., contact time)?

3. When did participants receive training about the facility's policies and procedures regarding cleaning and disinfecting the medication preparation areas?

- Responses may include:
 - New employee orientation/Upon hire
 - Staff in-services
 - Skills day
 - Remedial training, as needed

4. What role does the cleaning and disinfection of the medication preparation area play in patient/resident safety?

- Preparing medications in a clean space reduces the likelihood of contaminating the medication, injection needles and syringes, and medication vials therefore, lowering the risk of causing a healthcare associated infection.

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Resources:

FAQs Regarding Safe Practices for Medical Injections: Medication Preparation Questions

- https://www.cdc.gov/injectionsafety/providers/provider_fags_med-prep.html

Infection Prevention for Outpatient Settings

- <https://www.cdc.gov/infectioncontrol/pdf/outpatient/guide.pdf>
- <https://www.cdc.gov/infectioncontrol/pdf/outpatient/guidechecklist.pdf>

Institute for Safe Medication Practices

- <https://www.ismp.org/>

Video #3: Injection Safety

This activity should take approximately 20-30 minutes.

You just watched a [video](#) about injection safety. The professional featured in the video gave you information on how to safely store, prepare, and administer medications. Injection safety is an important part of patient/resident safety. Poor injection practices have led to outbreaks across the country. Practicing good injection safety is key to reducing infections for our patients/residents.

1. List three things that you learned about injection safety from this video (examples of appropriate responses below):

- Hand hygiene should be performed before both drawing up and administering medications. When gloves are used, hand hygiene must be performed immediately before and after glove use.
- Clean the rubber stopper of a medication vial with a sterile alcohol pad and let dry before inserting a needle. Even newly opened medication vials must be cleaned prior to entry. The vial cap is not intended to maintain sterility of the rubber stopper.
- Use one needle, and one syringe, only one time.
- Medications should be prepared as close as possible to the time of administration. If not immediately administered by the person who prepared the medication, the medication should be appropriately labeled with your initials, and the date and time of preparation.
- Multiple-dose vials must be discarded or dedicated as single-patient/resident use only, if they enter the immediate patient/resident care area. Multiple-dose vials should be dated and stored in a designated clean area in accordance with manufacturer's instructions. It is best practice to label multiple-dose vials with the beyond use date, which is 28 days after opening or as per manufacturer's instructions.
- Single-use vials should be used for a single patient/resident and single case/procedure/injection, then discarded.
- If a single-dose or single-use vial appears to contain multiple doses or contains more medication than is needed for a single patient/resident, that vial should not be used for more than one patient/resident nor stored for future use on the same patient/resident.
- Begin the administration of medication within one hour after drawing up.
- IV bags are single-use items and therefore not used for multiple patients/residents.

2. What is aseptic technique?

- Aseptic technique refers to the manner of handling, preparing, and storing of medications and injection equipment/supplies, such as syringes, needles, and IV tubing, to prevent microbial contamination. Hand hygiene is an essential component of aseptic technique.

3. Why is it important to use aseptic technique when preparing medications?

- Using aseptic technique ensures that the vials are free from contamination or contact with blood, body fluids, or contaminated equipment.

- Disinfecting the rubber stopper of the medication vial is a key component of safe injection practices and keeping patients/residents safe.

4. Regarding medication preparation, at what point should hand hygiene be performed?

- A. Before preparing medication
- B. After preparing medication
- C. Not necessary

Answer: A. Proper hand hygiene should be performed before handling medications. Hand hygiene is an essential component of aseptic technique.

5. Why is it important to use one needle and one syringe only one time when administering injections?

- To prevent the spread of microorganisms, especially blood borne pathogens, needles and syringes are used for only one patient/resident. This includes manufactured prefilled syringes and cartridge devices such as insulin pens.
- When entering a multiple-dose vial, a new needle and new syringe should be used each time. Never enter a vial with a used syringe or needle.

6. The video mentioned that single-dose vials are meant to be used for one dose for one patient/resident only. Why shouldn't single-dose vials be used for more than one patient/resident? What if medication is left in a single-dose vial?

- Always check the label of a medication vial to see if it is single-dose or multiple-dose.
- The size of the vial does not distinguish its designation of single or multiple-dose. Single-dose vials are meant to be accessed for one patient/resident only, for one injection/case/procedure, then discarded after use. Single-dose vials do not contain antimicrobial preservative.
- Accessing the rubber stopper of a single-dose vial more than one time increases the likelihood of contaminating the medication.
- If there is medication left over in a single-dose vial, it must be thrown away and not saved for future use.

7. Why should medication not be drawn up too far in advance of when it will be administered?

- Medication should be drawn up as it is needed. It should not be drawn up too far in advance, as exposing the unwrapped needles/syringes to the environment may expose the injecting equipment to microorganisms such as bacteria, viruses and fungus.

Additional points of interest:

- Do not unwrap needles and syringes in advance. Needles and syringes should be opened immediately prior to medication preparation.
- Multiple-dose vials are formulated so that they can be entered and re-entered more than one time.
- Never leave a needle, cannula, or spike device inserted into a medication vial.

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- IV bags are single-use items and should be used for one patient/resident only. This means never use intravenous solution containers (bags or bottles) to access flush solutions for more than one patient/resident.
- **Always perform hand hygiene before drawing up medications, before administering injections, and after administering injections. If you wear gloves, you must put on a new pair for each patient/resident and perform hand hygiene immediately before and after glove use.**
- Refer to your pharmacist for additional questions and resources (e.g., United States Pharmacopeia Standards <797> Pharmaceutical Compounding – Sterile Preparations).
- When possible, multiple-dose vials should be patient/resident dedicated. If not dedicated, multiple-dose vials should be properly stored and labeled. Multiple-dose vials should be prepared in a clean, designated medication preparation area, away from the immediate patient/resident care area.

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Resources:

Safe Injection Practices Coalition/One & Only Campaign

- <http://www.oneandonlycampaign.org/>

Injection Safety Checklist

- https://www.cdc.gov/injectionsafety/PDF/SIPC_Checklist.pdf

Single-dose or Multi-dose Infographic

- <http://www.oneandonlycampaign.org/single-dose-multi-dose-vial-infographic>

Healthcare Professional FAQs

- <http://www.oneandonlycampaign.org/content/healthcare-professional-faqs>

Bloodborne Pathogens Training

- <http://www.oneandonlycampaign.org/content/bloodborne-pathogens-training>

Endorsement of the CDC Position Statement on Single-Dose/Single-Use Vials

- <http://www.oneandonlycampaign.org/content/endorsement-cdc-position-statement-single-dosesingle-use-vials>

APIC Position Paper: Safe Injection, Infusion, and Medication Vial Practices in Health Care

- https://www.apic.org/Resource_/TinyMceFileManager/Position_Statements/2016APICS_IPPositionPaper.pdf