Station Implementation Tips
Injection and Medication Safety

1. Gather all:
    a. Simulation Supplies- various sized gloves, syringes, needles, medication vials filled with water (ensure vial is labeled for demonstration only and contains water), sharps containers, alcohol wipes, alcohol-based hand rub/hand sanitizer (with at least 60% alcohol content), trash can, disinfectant (wipes, solution with paper towels), glucometer, lancets, manikin, fruit such as an orange (or other object that can be used for injections such as a stress ball)
    b. Teaching materials- PPT presentation(s), handouts, pocket cards, competency checklists, quiz copies

2. Education and Competency Validation
    a. Provide a short overview of why following safe injection practices is important and review basic safe injection practices
    b. Demonstrate safe injection practices
    c. Perform safe injection practices competency validation with each staff member and document results on competency checklist.
        i. Blood glucose testing
        ii. Preparing and administering an injection
    d. If staff member did not successfully complete safe injection competencies:
        i. Provide and document remedial education
        ii. Repeat competency validation and document results
    e. Administer Injection and Medication Safety quiz-keep completed quizzes in education file

This toolkit was developed by AHCA with funding from the CDC Project Firstline Grant NU50CK000382-05-01

Approved August 2025

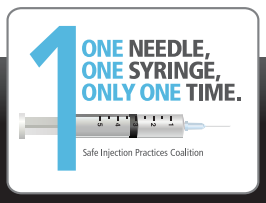
INJECTION SAFETY CHECKLIST

The following Injection Safety checklist items are a subset of items that can be found in the *CDC Infection Prevention Checklist for Outpatient Settings: Minimum Expectations for Safe Care*.

The checklist, which is appropriate for both inpatient and outpatient settings, should be used to systematically assess adherence of healthcare providers to safe injection practices. Assessment of adherence should be conducted by direct observation of healthcare personnel during the performance of their duties.

Injection Safety	Practice Performed?	If answer is No, document plan for remediation
Proper hand hygiene, using alcohol-based hand rub or soap and water, is performed prior to preparing and administering medications.	Yes No	
Injections are prepared using aseptic technique in a clean area free from contamination or contact with blood, body fluids, or contaminated equipment.	Yes No	
Needles and syringes are used for only one patient (this includes manufactured prefilled syringes and cartridge devices such as insulin pens).	Yes No	
The rubber septum on a medication vial is disinfected with alcohol prior to piercing.	Yes No	
Medication vials are entered with a new needle and a new syringe, even when obtaining additional doses for the same patient.	Yes No	
Single-dose or single-use medication vials, ampules, and bags or bottles of intravenous solution are used for only one patient.	Yes No	
Medication administration tubing and connectors are used for only one patient.	Yes No	
Multi-dose vials are dated by healthcare when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial. Note: This is different from the expiration date printed on the vial.	Yes No	
Multi-dose vials are dedicated to individual patients whenever possible.	Yes No	
Multi-dose vials to be used for more than one patient are kept in a centralized medication area and do not enter the immediate patient treatment area (e.g., operating room, patient room/cubicle). Note: If multi-dose vials enter the immediate patient treatment area, they should be dedicated for single-patient use and discarded immediately after use.	Yes No	

The *One & Only Campaign* is a public health effort to eliminate unsafe medical injections. To learn more about safe injection practices, please visit www.cdc.gov/injectionsafety/1anonly.html.



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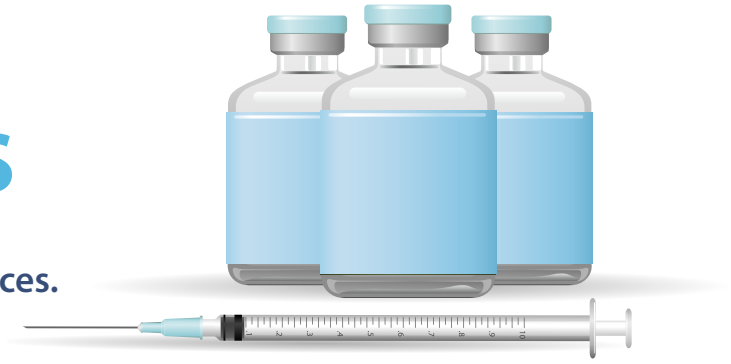
DANGEROUS MISPERCEPTIONS

Here are some examples of dangerous misperceptions about safe injection practices.



Myth	Truth
Changing the needle makes a syringe safe for reuse.	Once they are used, both the needle and syringe are contaminated and must be discarded. A new sterile needle and a new sterile syringe should be used for each injection and each entry into a medication vial.
Syringes can be reused as long as an injection is administered through IV tubing.	Syringes and needles should never be reused. The IV tubing, syringe, and other components represent a single, interconnected unit. Distance from the patient, gravity, or infusion pressure do not ensure that small amounts of blood won't contaminate the syringe once it has been connected to the unit.
If you don't see blood in the IV tubing or syringe, it means that those supplies are safe for reuse.	Germs such as hepatitis C virus and staph or MRSA are invisible to the naked eye, but can easily infect patients even when present in microscopic quantities. Do not reuse syringes, needles, or IV tubing.
It's okay to use leftover medicine from use single-dose or single-use vials for more than one patient.	Single-dose or single-use vials should not be used for more than one patient regardless of how much medicine is remaining.

Injection Safety is Every Provider's Responsibility!

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1 ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME.
Safe Injection Practices Coalition

CDC

Avoid Outbreaks by Double-checking Injection Practices

Protecting your patients from infection is a basic standard of care. It might be hard to believe, but in recent years, syringe reuse and misuse of medication vials have resulted in dozens of outbreaks and the need to alert more than 150,000 patients to seek testing for bloodborne pathogens such as hepatitis B virus, hepatitis C virus, and HIV.

Injection Safety is Every Provider's Responsibility

ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME.
Safe Injection Practices Coalition

About the Safe Injection Practices Coalition

The Safe Injection Practices Coalition (SIPC) is a partnership of healthcare-related organizations led by the Centers for Disease Control and Prevention. The SIPC developed the *One & Only Campaign*—a public health effort to eliminate unsafe medical injections by raising awareness of safe injection practices.

For a list of SIPC partners, for more information about the Campaign, and to view additional resources including videos and other materials, please visit:

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

DEPARTMENT OF HEALTH & HUMAN SERVICES USA
CDC
Centers for Disease Control and Prevention

306089-O

INJECTION SAFETY

What Every Healthcare Provider Needs to Know

ONE NEEDLE, ONE SYRINGE, ONLY ONE TIME.
Safe Injection Practices Coalition

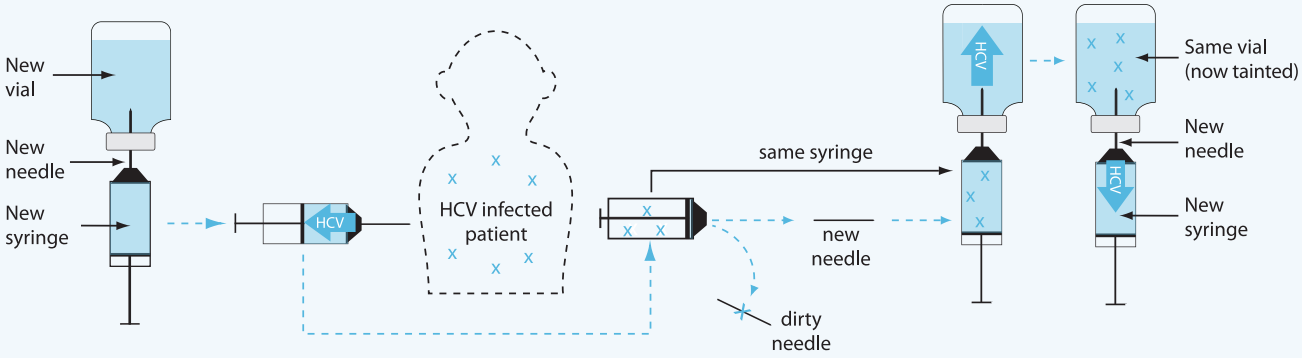
Injection Safety Guidelines From CDC

- Follow proper infection control practices and maintain aseptic technique during the preparation and administration of injected medications (e.g., perform hand hygiene).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injecting material or inserting a catheter into the epidural or subdural space.

Adapted from: Guideline for isolation precautions: preventing transmission of infectious agents in health care settings 2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at: http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf

Unsafe Injection Practices and Disease Transmission

Improper use of syringes, needles, and medication containers can transmit infectious diseases such as hepatitis C virus or MRSA.



1. New needle and syringe are used to draw medication.
2. When used on an HCV-infected patient, backflow from the injection contaminates the syringe. Changing the needle does not prevent contamination of the syringe.
3. When reused to obtain medication, the contaminated syringe contaminates the medication vial.
4. If the contaminated vial is used for other patients, they can become infected with HCV.

Adapted from MMWR (May 16, 2008 / 57(19);513-517)

How can healthcare providers ensure that injections are performed correctly?

Healthcare providers can review medication preparation and administration procedures with staff and colleagues to ensure that safe practices are understood and followed by all. The *One & Only Campaign* offers educational resources, such as toolkits and checklists, for healthcare providers and staff.

Visit www.cdc.gov/injectionsafety/1anonly.html for materials to support your practice:

- Injection Safety Checklist
- Check Your Steps! Make Every Injection Safe
- Managing Patient Safety, One Injection at a Time
- Single-Dose and Multi-Dose Vial Infographic
- Injection Safety Impact Infographic

Remember:

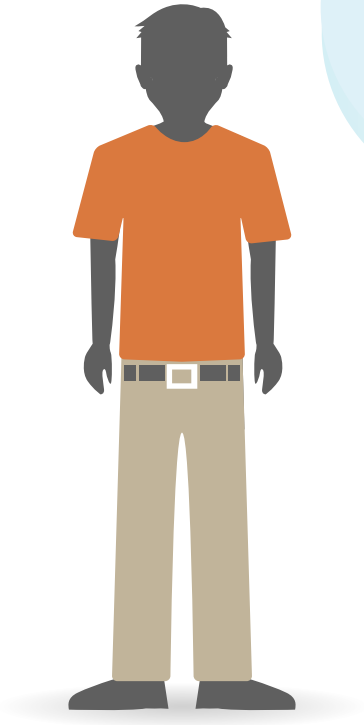
ONE Needle,
ONE Syringe,
ONLY ONE Time.

SINGLE-DOSE OR MULTI-DOSE?

NOT ALL VIALS ARE CREATED EQUAL.

Dozens of recent outbreaks have been associated with reuse of single-dose vials and misuse of multiple-dose vials. As a result of these incidents, patients have suffered significant harms, including death. CDC and the One & Only Campaign urge healthcare providers to recognize the differences between single-dose and multiple-dose vials and to understand appropriate use of each container type.

This information can literally save a life.



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

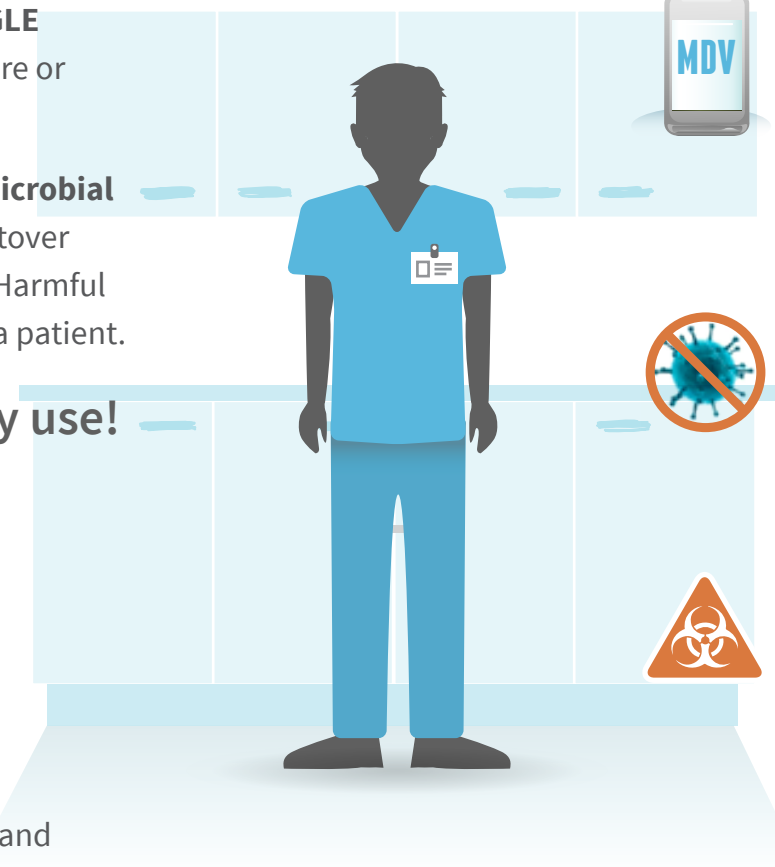
THE PROVIDER

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

SAFETY STEPS

FOLLOW THESE INJECTION SAFETY STEPS FOR SUCCESS!

BEFORE THE PROCEDURE

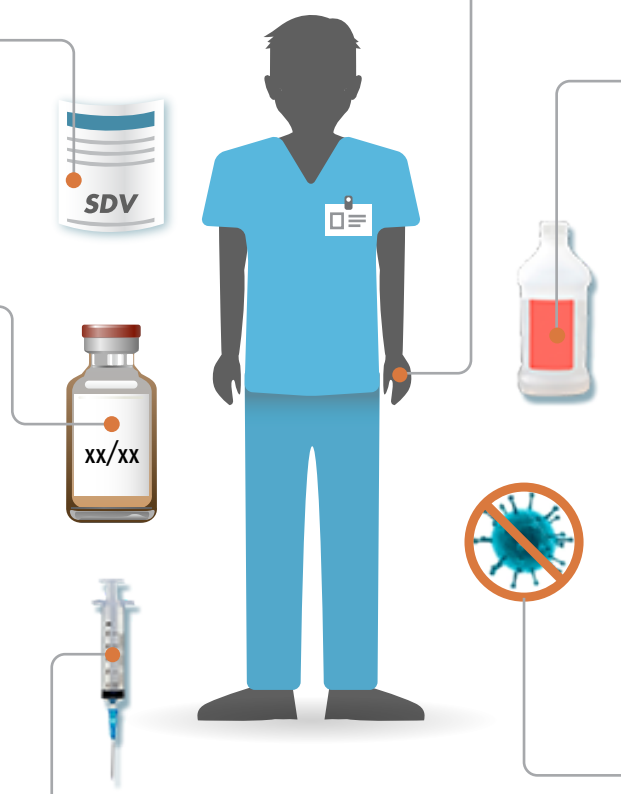
Carefully ***read the label*** of the vial of medication.

- If it says single-dose and it has already been accessed (e.g. needle-punctured), ***throw it away.***
- If it says multiple-dose, ***double-check the expiration date*** and the beyond-use date if it was previously opened, and visually inspect to ensure no visible contamination.
- When in doubt, throw it out.

DURING THE PROCEDURE

Use aseptic technique.

- Use a new needle and syringe for every injection.



- Be sure to clean your hands immediately before handling any medication.
- Disinfect the medication vial by rubbing the diaphragm with alcohol.
- Draw up all medications in a clean medication preparation area.

AFTER THE PROCEDURE

Discard all used needles and syringes and SDVs after the procedure is over.

MDVs should be discarded when:

- the beyond-use date has been reached
- doses are drawn in a patient treatment area
- any time vial sterility is in question

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

THE MANAGER

INFECTIONS CAN BE COSTLY.

EDUCATE YOUR TEAM!

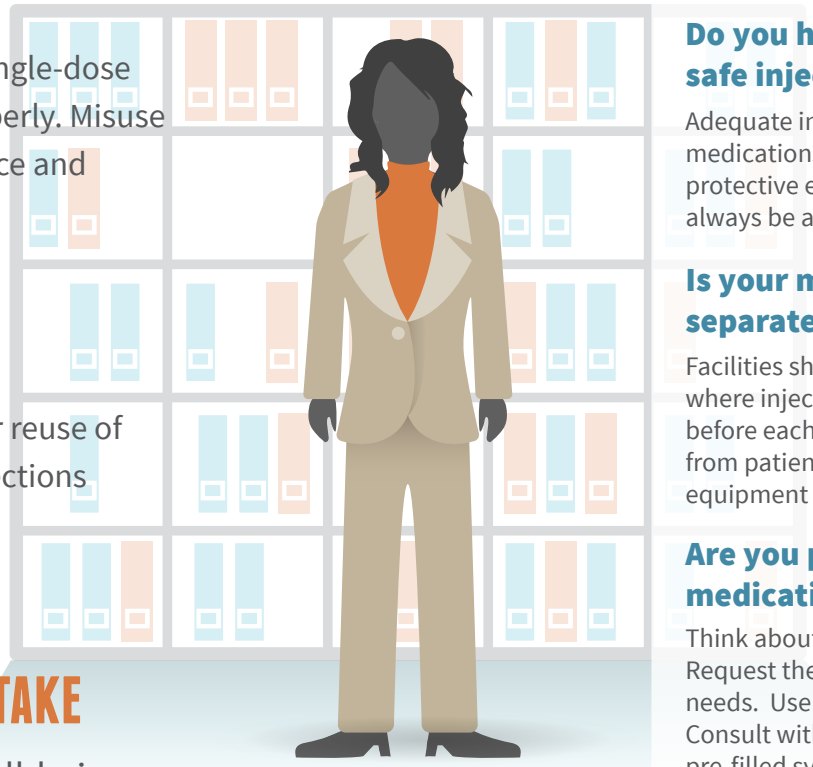
Make sure your team uses single-dose and multiple-dose vials properly. Misuse of medicine puts your practice and patients at risk.

RISKY BUSINESS

First, do no harm. Improper reuse of SDVs has caused patient infections and deaths.

REALIZE WHAT'S AT STAKE

- A person's life and well-being
- Accreditation status
- Clinic license or certification



HAVE YOU CONSIDERED...?

Do you have enough supplies to ensure safe injections ?

Adequate injection supplies (e.g. syringes, appropriate medications in right-sized vials when possible, personal protective equipment such as gloves and facemasks) should always be available.

Is your medication preparation area separate from the patient care area?

Facilities should have a designated clean medication area where injections are drawn up and labeled immediately before each individual patient. This space should be away from patient care areas and where any used or soiled equipment and materials might be.

Are you purchasing the safest available medication?

Think about safety when you re-supply clinic medications. Request the smallest vials that meet individual patient needs. Use FDA-approved, manufactured medications. Consult with pharmacists and others to learn whether pre-filled syringes or other "ready-to-deliver" unit-dose packaging is available.

Do you arrange infection control training for your healthcare personnel?

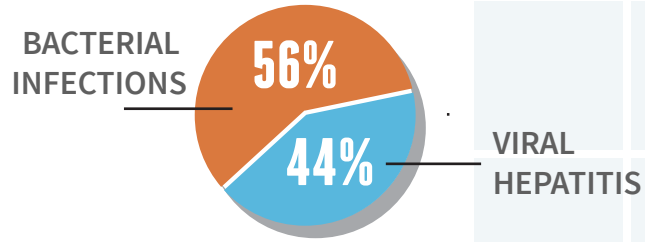
In addition to the OSHA-mandated bloodborne pathogen training, job-specific training on infection control, including safe injection practices, should be provided upon hire and at least annually for healthcare personnel.

THE PATIENT

WE ARE ALL PATIENTS.

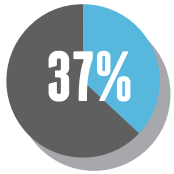
50 OUTBREAKS AND COUNTING

Since 2001, at least 50 outbreaks involving unsafe injection practices were reported to CDC

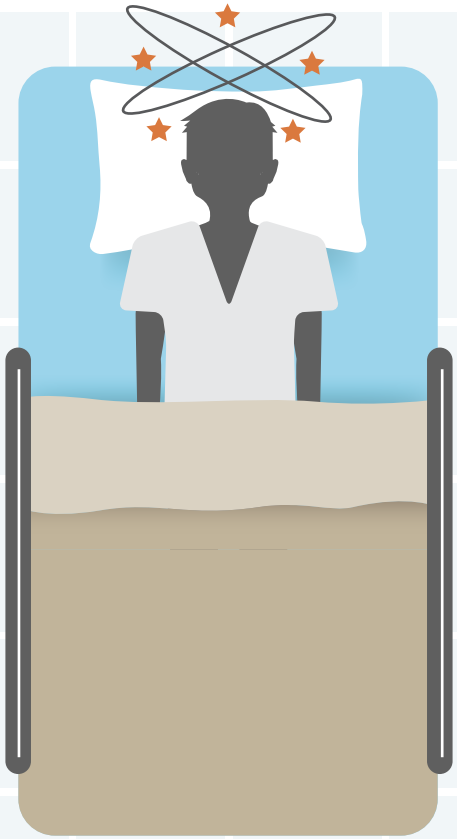


- 90% (n=45) occurred in outpatient settings
- Many hundreds of infected patients
- Over 150,000 patients notified and tested

6% of U.S. health professionals have admitted to using single-dose vials for ***more than one patient.***



A recent study showed that 37% of new hepatitis infections in older adults may be due to unsafe medical injections.



3 QUESTIONS EVERY PATIENT SHOULD BE ENCOURAGED TO ASK:

As a provider, be prepared to answer your patients' questions about safe injection practices.

Did you wash your hands?

Did you use a clean needle and syringe to draw up this medication?

Is this medication from a single-dose vial? Have you used this vial of medication on another person?

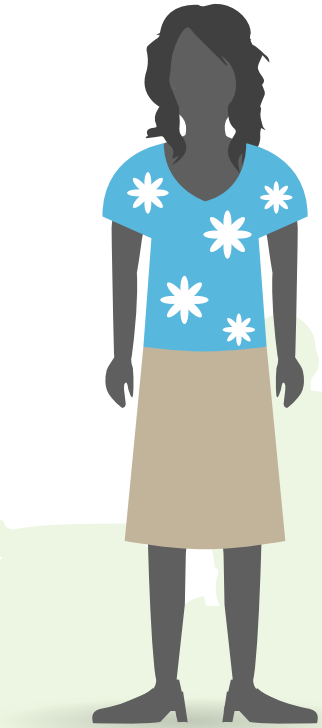
www.cdc.gov/injectionsafety/1anonly.html

IMAGINE IT WAS YOU!

AT THE END OF THE DAY WE'RE ALL PATIENTS.

Knowing how to properly identify single-dose and multiple-dose vials will prevent infections and can save lives. Following basic safe injection procedures is not something to take for granted – there is too much at stake. Educate yourself and those around you.

Do your part to make healthcare safe...
One injection at a time.



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

306089-C

THE IMPACT OF UNSAFE MEDICAL INJECTIONS IN THE U.S.

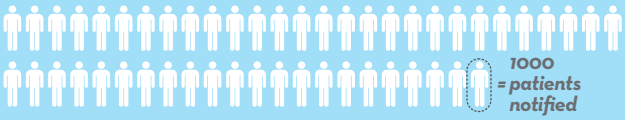
Unsafe Injection Practices Have Devastating Consequences[1]

Syringe reuse and misuse of medication vials have resulted in dozens of outbreaks and **THE NEED TO ALERT MORE THAN 150,000 PATIENTS...**

...to seek testing for bloodborne pathogens such as **HEPATITIS B, HEPATITIS C AND HIV,**[2] and have led to...

- **Patient illness and death**
- **Legal charges/ malpractice suits**
- **Loss of clinician licenses**
- **Criminal charges**

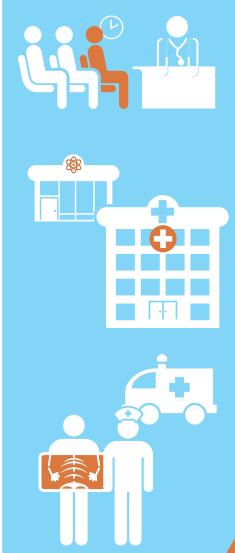
In just one clinic, syringe reuse to access medication vials for multiple patients resulted in an outbreak and one of the largest public health alerts in U.S. history.



50,000 PEOPLE EXPOSED TO INFECTION

$16~$20 MILLION IN COSTS

Outbreaks Occur in a Variety of Settings



- Hospitals
- Primary care clinics
- Pediatric offices
- Outpatient surgical centers
- Pain clinics
- Imaging facilities
- Oncology clinics
- Dental clinics
- Health fairs

Injection Safety is Every Provider's Responsibility

Steps Every Healthcare Provider Should Take

- Follow proper infection control practices and maintain aseptic technique during the preparation and administration of injected medications (e.g., perform hand hygiene).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injecting material or inserting a catheter into the epidural or subdural space.

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FOOTNOTES

1 Centers for Disease Control and Prevention. (August 24, 2012). Injection Safety Information for Providers. In CDC.gov. Retrieved October 10 2012, from http://www.cdc.gov/injectionsafety/providers.html.

2 Guh, Alice Y. MD, MPH; Thompson, Nicola D. PhD; Schaefer, Melissa K. MD; Patel, Priti R. MD, MPH; Perz, Joseph F. DrPH. Patient Notification for Bloodborne Pathogen Testing due to Unsafe Injection Practices in the US Health Care Settings, 2001-2011. Medical Care Journal, May2012.

306089-B

Quiz: Injection and Medication Safety

Name _____

1. True or False: Use an alcohol wipe to clean and disinfect a glucometer after use.

2. Once a multi-dose vial is opened (e.g., needle-punctured) the vial should be dated and discarded within ____ days unless the manufacturer states another date for that opened vial.
   A. 26
   B. 28
   C. 30
   D. None of the above

3. True or False: Place a barrier under the glucometer when placed on top of a resident's overbed table or medication cart.

4. True or False: It is acceptable to use an insulin pen for more than one resident if the needle is changed between use.

5. If a single-dose vial appears to contain multiple doses or contains more medication than needed for a single resident:
   A. do not retain it for future use, even on the same resident
   B. do not combine (pool) doses from another vial
   C. do not store leftover contents for later use
   D. All of the above
   E. A and C only
   F. A and B only
   G. B and C only

This toolkit was developed by AHCA with funding from the CDC Project Firstline Grant NU50CK000382-05-01

Approved August 2025

Quiz Answer Key: Injection and Medication Safety

Answer Key:

1. False
2. B
3. True
4. False
5. D

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Approved August 2025

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

Section 3: Observation Form - Injection Safety

Injection Safety. This form is intended to guide observations for preparation and administration of injectable medications (pages 2-9) and immediate use sterile compounding (page 10).

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/injection-safety/hcp/clinical-safety/index.html**

Injection Safety ICAR Interview Questions (Section 2 Module 6) and Observation Forms for other IPC topics (Section 3) are available on the ICAR web page: https://www.cdc.gov/healthcare-associated-infections/php/toolkit/icar.html

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CS334433-H 1/6/2023

Injection Safety Facility Observations

Ideally, at least two observations of different staff within the facility are observed. If direct observations cannot be gathered, then information can be obtained by asking staff.

Observation 1

1. Do HCP perform hand hygiene prior to preparing or administering an injectable medication?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use an alcohol-based hand rub or wash with soap and water for the following clinical indications:

a. Immediately before touching a patient.

b. Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices."

Additional indications for when hands must be cleaned can be found in the link below.

***Source*:** https://www.cdc.gov/infection-control/hcp/core-practices/

2. Are injections prepared using aseptic technique in a clean area that is not adjacent to potential sources of contamination (e.g., at least one meter from sinks or other water sources; free from items that could have come in contact with blood or body fluids)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Medications should be drawn up in a designated clean medication preparation area that is not adjacent to potential sources of contamination, including sinks or other water sources. Water can splash or spread as droplets more than a meter from a sink. In addition, any item that could have come in contact with blood or body fluids, such as soiled equipment used in a procedure, should not be in the medication preparation area. Examples of contaminated items that should not be placed in or near the medication preparation area include: used equipment such as syringes, needles, IV tubing, blood collection tubes, or needle holders (e.g., Vacutainer® holder).

The medication preparation area should be cleaned and disinfected on a regular basis and any time there is evidence of soiling. In addition, there should be ready access to necessary supplies (such as alcohol-based hand rub, needles and syringes in their sterile packaging, and alcohol wipes) in the medication preparation area to ensure that staff can adhere to aseptic technique.

Parenteral medications should be accessed in an aseptic manner. This includes using a new sterile syringe and sterile needle to draw up medications while preventing contact between the injection materials and the non-sterile environment. Proper hand hygiene should be performed before handling medications and the rubber septum should be disinfected with alcohol prior to piercing it.

***Source*:** https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html

3. Are needles and syringes used for only one patient/resident (this includes manufactured prefilled syringes and cartridge devices such as insulin pens)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Once they are used, the syringe and needle are both contaminated and must be discarded. Use a new sterile syringe and needle for each patient.

The safest practice is for a syringe and needle to be used only once to administer a medication to a single patient, after which the syringe and needle should be discarded. This practice prevents inadvertent reuse of the syringe and protects healthcare personnel from harms such as needlestick injuries.

However, when this is not feasible (e.g., when administration of incremental doses to a single patient from the same syringe is an integral part of the procedure), reuse of the same syringe and needle for the same patient should occur as part of a single procedure with strict adherence to aseptic technique. In such situations it is essential that the syringe never be left unattended and that it be discarded immediately at the end of the procedure.

***Source*:** https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html

Notes

4. Is the rubber septum on a medication vial disinfected prior to piercing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Parenteral medications should be accessed in an aseptic manner. This includes using a new sterile syringe and sterile needle to draw up medications while preventing contact between the injection materials and the non-sterile environment. Proper hand hygiene should be performed before handling medications and the rubber septum should be disinfected with alcohol prior to piercing it.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

5. Are medication containers entered with a new needle and a new syringe, even when obtaining additional doses for the same patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

The safest practice is to always enter a medication vial with a sterile needle and sterile syringe, even when obtaining additional doses of medication for the same patient. This adds an extra layer of safety in case, for some reason, the medication vial is not discarded at the end of the procedure as it should be and is inadvertently used on a subsequent patient.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

6. Are single dose medication vials, ampules, and bags or bottles of intravenous solution used for only one patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

A single-dose or single-use vial is a vial of liquid medication intended for parenteral administration (injection or infusion) that is meant for use in a single patient for a single case, procedure, injection. Single-dose or single-use vials are labeled as such by the manufacturer and typically lack an antimicrobial preservative.

Vials that are labeled as single-dose or single-use should be used for only a single patient as part of a single case, procedure, injection. There have been multiple outbreaks resulting from healthcare personnel using single-dose or single-use vials for multiple patients.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

7. Are medication administration tubing and connectors used for only one patient/resident?

- ○ Not applicable (intravenous tubing is never used)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use fluid infusion or administration sets (e.g., intravenous tubing) for one patient only."

***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

8. Are multi-dose vials dated by HCP when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial?

Note: *This is different from the expiration date printed on the vial.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Notes

A multi-dose vial is a vial of liquid medication intended for parenteral administration (injection or infusion) that contains more than one dose of medication. Multi-dose vials are labeled as such by the manufacturer and typically contain an antimicrobial preservative to help prevent the growth of bacteria. The preservative has no effect on viruses and does not protect against contamination when healthcare personnel fail to follow safe injection practices.

Medication vials should always be discarded whenever sterility is compromised or cannot be confirmed. In addition, the United States Pharmacopeia (USP) General Chapter 797 recommends the following for multi-dose vials of sterile pharmaceuticals:

- If a multi-dose has been opened or accessed (e.g., needle-punctured) the vial should be dated and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial.
- If a multi-dose vial has **not** been opened or accessed (e.g., needle-punctured), it should be discarded according to the manufacturer's expiration date.

The manufacturer's expiration date refers to 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.

For information on storage and handling of vaccines please refer to the CDC Vaccine Storage and Handling Toolkit or the manufacturer's recommendations for specific vaccines.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

9. Are multi-dose vials that will be used for more than one patient/resident kept in a centralized medication area?

Note: *If multi-dose vials enter the immediate patient/resident treatment area (e.g., operating room, patient/resident room/cubicle) they should be dedicated only for use on that individual patient/resident or discarded immediately after use.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Multi-dose vials should be dedicated to a single patient whenever possible. If multi-dose vials must be used for more than one patient, they should only be kept and accessed in a dedicated clean medication preparation area (e.g., nurses station), away from immediate patient treatment areas. This is to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could then lead to infections in subsequent patients. If a multi-dose vial enters an immediate patient treatment area, it should be dedicated for single-patient use only.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

10. Are all sharps disposed of in a puncture-resistant sharps container?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"1910.1030(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

1910.1030(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

910.1030(d)(4)(iii)(A)(1)(i)

Closable;
1910.1030(d)(4)(iii)(A)(1)(ii)

Puncture resistant;
1910.1030(d)(4)(iii)(A)(1)(iii)

Leakproof on sides and bottom; and
1910.1030(d)(4)(iii)(A)(1)(iv)

Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.
1910.1030(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:
1910.1030(d)(4)(iii)(A)(2)(i)

Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);
1910.1030(d)(4)(iii)(A)(2)(ii)

Maintained upright throughout use; and
1910.1030(d)(4)(iii)(A)(2)(iii)

Replaced routinely and not be allowed to overfill."

***Source*: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030#1910.1030(d)(4)(iii)(A)(1)**

11. Are filled sharps containers disposed of in accordance with state regulated medical waste rules?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"1910.1030(d)(4)(iii)(C)

Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories."

***Source*: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030#1910.1030(d)(4)(iii)(A)(1)**

If full or overflowing sharps containers are noted while walking through the facility, the ICAR facilitator should ask about who has responsibility for monitoring and emptying sharps containers when they are full.

12. Are all controlled substances (e.g., Schedule II, III, IV, V drugs) kept locked within a secure area?

- ○ Not applicable (no controlled substances are used in the facility)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Title 21 Code of Federal Regulations

PART 1301 — REGISTRATION OF MANUFACTURERS, DISTRIBUTORS, AND DISPENSERS OF CONTROLLED SUBSTANCES

SECURITY REQUIREMENTS

§1301.75 Physical security controls for practitioners.

(a) Controlled substances listed in Schedule I shall be stored in a securely locked, substantially constructed cabinet.

(b) Controlled substances listed in Schedules II, III, IV, and V shall be stored in a securely locked, substantially constructed cabinet. However, pharmacies and institutional practitioners may disperse such substances throughout the stock of noncontrolled substances in such a manner as to obstruct the theft or diversion of the controlled substances."

***Source*: https://www.ecfr.gov/current/title-21/chapter-II/part-1301/subject-group-ECFRa7ff8142033a7a2/section-1301.75**

13. Do HCP wear a facemask (e.g., surgical mask) when placing a catheter or injecting material into the epidural or subdural space (e.g., during myelogram, epidural or spinal anesthesia)?

- ○ Not applicable (facility does not perform this procedure)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Outbreaks of bacterial meningitis following…spinal injection procedures continue to be identified among patients whose procedures were performed by a healthcare provider who did not wear a facemask (e.g., may be labeled as surgical, medical procedure, or isolation mask),[1]….This notice serves as a reminder that facemasks should always be worn by healthcare providers when performing these spinal injection procedures.[2]

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

"Wear a facemask when placing a catheter or injecting material into the epidural or subdural space (e.g., during myelogram, epidural or spinal anesthesia)."

***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

Notes

Injection Safety Facility Observations

Ideally, at least two observations of different staff within the facility are observed. If direct observations cannot be gathered, then information can be obtained by asking staff.

Observation 2

1. Do HCP perform hand hygiene prior to preparing or administering an injectable medication?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use an alcohol-based hand rub or wash with soap and water for the following clinical indications:

a. Immediately before touching a patient.

b. Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices."

Additional indications for when hands must be cleaned can be found in the link below.

***Source*: hhttps://www.cdc.gov/infection-control/hcp/core-practices/**

2. Are injections prepared using aseptic technique in a clean area that is not adjacent to potential sources of contamination (e.g., at least one meter from sinks or other water sources; free from items that could have come in contact with blood or body fluids)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Medications should be drawn up in a designated clean medication preparation area that is not adjacent to potential sources of contamination, including sinks or other water sources. Water can splash or spread as droplets more than a meter from a sink. In addition, any item that could have come in contact with blood or body fluids, such as soiled equipment used in a procedure, should not be in the medication preparation area. Examples of contaminated items that should not be placed in or near the medication preparation area include: used equipment such as syringes, needles, IV tubing, blood collection tubes, or needle holders (e.g., Vacutainer® holder).

The medication preparation area should be cleaned and disinfected on a regular basis and any time there is evidence of soiling. In addition, there should be ready access to necessary supplies (such as alcohol-based hand rub, needles and syringes in their sterile packaging, and alcohol wipes) in the medication preparation area to ensure that staff can adhere to aseptic technique.

Parenteral medications should be accessed in an aseptic manner. This includes using a new sterile syringe and sterile needle to draw up medications while preventing contact between the injection materials and the non-sterile environment. Proper hand hygiene should be performed before handling medications and the rubber septum should be disinfected with alcohol prior to piercing it.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

3. Are needles and syringes used for only one patient/resident (this includes manufactured prefilled syringes and cartridge devices such as insulin pens)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Once they are used, the syringe and needle are both contaminated and must be discarded. Use a new sterile syringe and needle for each patient.

The safest practice is for a syringe and needle to be used only once to administer a medication to a single patient, after which the syringe and needle should be discarded. This practice prevents inadvertent reuse of the syringe and protects healthcare personnel from harms such as needlestick injuries.

However, when this is not feasible (e.g., when administration of incremental doses to a single patient from the same syringe is an integral part of the procedure), reuse of the same syringe and needle for the same patient should occur as part of a single procedure with strict adherence to aseptic technique. In such situations it is essential that the syringe never be left unattended and that it be discarded immediately at the end of the procedure.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

Notes

4. Is the rubber septum on a medication vial disinfected prior to piercing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Parenteral medications should be accessed in an aseptic manner. This includes using a new sterile syringe and sterile needle to draw up medications while preventing contact between the injection materials and the non-sterile environment. Proper hand hygiene should be performed before handling medications and the rubber septum should be disinfected with alcohol prior to piercing it.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

5. Are medication containers entered with a new needle and a new syringe, even when obtaining additional doses for the same patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

The safest practice is to always enter a medication vial with a sterile needle and sterile syringe, even when obtaining additional doses of medication for the same patient. This adds an extra layer of safety in case, for some reason, the medication vial is not discarded at the end of the procedure as it should be and is inadvertently used on a subsequent patient.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

6. Are single dose medication vials, ampules, and bags or bottles of intravenous solution used for only one patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

A single-dose or single-use vial is a vial of liquid medication intended for parenteral administration (injection or infusion) that is meant for use in a single patient for a single case, procedure, injection. Single-dose or single-use vials are labeled as such by the manufacturer and typically lack an antimicrobial preservative.

Vials that are labeled as single-dose or single-use should be used for only a single patient as part of a single case, procedure, injection. There have been multiple outbreaks resulting from healthcare personnel using single-dose or single-use vials for multiple patients.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

7. Are medication administration tubing and connectors used for only one patient/resident?

- ○ Not applicable (intravenous tubing is never used)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use fluid infusion or administration sets (e.g., intravenous tubing) for one patient only."

***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

8. Are multi-dose vials dated by HCP when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial?

Note: *This is different from the expiration date printed on the vial.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Notes

A multi-dose vial is a vial of liquid medication intended for parenteral administration (injection or infusion) that contains more than one dose of medication. Multi-dose vials are labeled as such by the manufacturer and typically contain an antimicrobial preservative to help prevent the growth of bacteria. The preservative has no effect on viruses and does not protect against contamination when healthcare personnel fail to follow safe injection practices.

Medication vials should always be discarded whenever sterility is compromised or cannot be confirmed. In addition, the United States Pharmacopeia (USP) General Chapter 797 recommends the following for multi-dose vials of sterile pharmaceuticals:

- If a multi-dose has been opened or accessed (e.g., needle-punctured) the vial should be dated and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial.
- If a multi-dose vial has **not** been opened or accessed (e.g., needle-punctured), it should be discarded according to the manufacturer's expiration date.

The manufacturer's expiration date refers to 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.

For information on storage and handling of vaccines please refer to the CDC Vaccine Storage and Handling Toolkit or the manufacturer's recommendations for specific vaccines.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

9. Are multi-dose vials that will be used for more than one patient/resident kept in a centralized medication area?

Note: *If multi-dose vials enter the immediate patient/resident treatment area (e.g., operating room, patient/resident room/cubicle) they should be dedicated only for use on that individual patient/resident or discarded immediately after use.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Multi-dose vials should be dedicated to a single patient whenever possible. If multi-dose vials must be used for more than one patient, they should only be kept and accessed in a dedicated clean medication preparation area (e.g., nurses station), away from immediate patient treatment areas. This is to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could then lead to infections in subsequent patients. If a multi-dose vial enters an immediate patient treatment area, it should be dedicated for single-patient use only.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

10. Are all sharps disposed of in a puncture-resistant sharps container?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"1910.1030(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

1910.1030(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

910.1030(d)(4)(iii)(A)(1)(i)

Closable;
1910.1030(d)(4)(iii)(A)(1)(ii)

Puncture resistant;
1910.1030(d)(4)(iii)(A)(1)(iii)

Leakproof on sides and bottom; and
1910.1030(d)(4)(iii)(A)(1)(iv)

Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.
1910.1030(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:
1910.1030(d)(4)(iii)(A)(2)(i)

Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);
1910.1030(d)(4)(iii)(A)(2)(ii)

Maintained upright throughout use; and
1910.1030(d)(4)(iii)(A)(2)(iii)

Replaced routinely and not be allowed to overfill."

***Source*: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030#1910.1030(d)(4)(iii)(A)(1)**

11. Are filled sharps containers disposed of in accordance with state regulated medical waste rules?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"1910.1030(d)(4)(iii)(C)

Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories."

***Source*: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030#1910.1030(d)(4)(iii)(A)(1)**

If full or overflowing sharps containers are noted while walking through the facility, the ICAR facilitator should ask about who has responsibility for monitoring and emptying sharps containers when they are full.

12. Are all controlled substances (e.g., Schedule II, III, IV, V drugs) kept locked within a secure area?

- ○ Not applicable (no controlled substances are used in the facility)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Title 21 Code of Federal Regulations

PART 1301 — REGISTRATION OF MANUFACTURERS, DISTRIBUTORS, AND DISPENSERS OF CONTROLLED SUBSTANCES

SECURITY REQUIREMENTS

§1301.75 Physical security controls for practitioners.

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(b) Controlled substances listed in Schedules II, III, IV, and V shall be stored in a securely locked, substantially constructed cabinet. However, pharmacies and institutional practitioners may disperse such substances throughout the stock of noncontrolled substances in such a manner as to obstruct the theft or diversion of the controlled substances."

***Source*: https://www.ecfr.gov/current/title-21/chapter-II/part-1301/subject-group-ECFRa7ff8142033a7a2/section-1301.75**

13. Do HCP wear a facemask (e.g., surgical mask) when placing a catheter or injecting material into the epidural or subdural space (e.g., during myelogram, epidural or spinal anesthesia)?

- ○ Not applicable (facility does not perform this procedure)
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Outbreaks of bacterial meningitis following…spinal injection procedures continue to be identified among patients whose procedures were performed by a healthcare provider who did not wear a facemask (e.g., may be labeled as surgical, medical procedure, or isolation mask),[1]….This notice serves as a reminder that facemasks should always be worn by healthcare providers when performing these spinal injection procedures.[2]"

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

"Wear a facemask when placing a catheter or injecting material into the epidural or subdural space (e.g., during myelogram, epidural or spinal anesthesia)."

***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

Notes

Sterile Compounding Observations

The observation elements listed below can be used to assess preparation of immediate use compounded sterile preparations (CSPs). Additional requirements addressing aseptic processes, labeling of immediate use CSPs and training of HCP who prepare immediate use CSPs are addressed in the USP 797 chapter.

A detailed assessment of sterile compounding practices, including compounding with blood-derived or other biological materials (e.g., autologous serum), is beyond the scope of this tool. To assess preparation of other CSPs, refer to relevant USP Chapters for the full list of requirements that should be followed by the facility and enlist assistance from an appropriately trained pharmacy specialist.

Sterile compounding outside of the full Category 1, 2, and 3 requirements of USP 797, including the requirement for an ISO Class 5 primary engineering control (e.g., hood), is permitted only in a limited number of circumstances, which include:

- Preparation of immediate use compounded sterile preparations (CSPs) – See Section 1.3 of USP 797
- Preparing a conventionally manufactured sterile product in accordance with the directions in the manufacturer's approved labeling when the product is: 1) prepared as a single dose for an individual patient and 2) the approved labeling includes information for the diluent, the resultant strength, the container closure system, and storage time – See Section 1.4 of USP 797
- Preparation of allergenic extracts – See Section 21 of USP 797
- Preparation of radiopharmaceuticals – See USP 825

USP Chapters 797, 800 and 825 are available on the USP website: **https://www.usp.org/compounding**

1. Does administration of the immediate use CSP **begin within 4 hours** following the start of the preparation?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

USP 797 specifies that administration of immediate-use CSP must begin within 4 hours following the start of the preparation. If administration will begin more than 4 hours following the start of the preparation, the full Category 1, 2, or 3 requirements described in USP 797 must be followed.

***Source*: USP22_HQS_Compounding_797_FAQ_Document_V2a.pdf** *(PDF will open in downloads)*

From an infection control perspective, the safest practice is to prepare an injection as close as possible to the time of administration to the patient. This is to prevent compromised sterility (i.e., microbial contamination or proliferation) or compromised physical and chemical stability (e.g., loss of potency, adsorption to the container) of the medication when it is transferred outside of its original container and stored for a period of time before administration.

***Source*: https://www.cdc.gov/injection-safety/hcp/clinical-safety/index.html**

2. Is the immediate use preparation made with ≤ 3 different sterile products?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

USP 797 specifies that immediate-use CSPs must not involve more than 3 different sterile products.

***Source*: USP22_HQS_Compounding_797_FAQ_Document_V2a.pdf**

3. Are unused starting components from a single-dose container discarded after immediate use preparation for the individual patient/ resident is complete?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

If a single-dose container will be used to compound for >1 patient, the full Category 1, 2, or 3 requirements described in USP 797 must be followed.

***Source*: USP22_HQS_Compounding_797_FAQ_Document_V2a.pdf**

Notes

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

Section 3: Observation Form - Point of Care (POC) Blood Testing

Point of Care (POC) Blood Testing: This form is intended to guide observations related to POC blood testing performed and equipment used by the healthcare facility.

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.

Point of Care Blood Testing ICAR Interview Questions (Section 2 Module 7) and Observation Forms for other IPC topics (Section 3) are available on the ICAR web page: https://www.cdc.gov/healthcare-associated-infections/php/toolkit/icar.html

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

POC Blood Testing Facility Observations:

Ideally, make observations of at least 2 different staff. If direct observations cannot be gathered, then information can be obtained by asking staff.

Observation 1

1. Are clean supplies accessed in a manner to prevent contamination (e.g., is the test strip container accessed with clean hands from the clean supply cart prior to entering the patient/resident treatment area)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Perform hand hygiene….before touching other medical supplies intended for use on other persons."
***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**
"Maintain separation between clean and soiled equipment to prevent cross contamination."
***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

2. Do HCP perform hand hygiene before performing POC blood testing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use an alcohol-based hand rub or wash with soap and water for the following clinical indications:
a. Immediately before touching a patient.
b. Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices."
Additional indications for when hands must be cleaned can be found in the link below.
***Source:* https://www.cdc.gov/infection-control/hcp/core-practices/**

3. Do HCP wear gloves when performing POC blood testing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Wear gloves during blood glucose monitoring and during any other procedure that involves potential exposure to blood or body fluids."
***Source*: hhttps://www.cdc.gov/injection-safety/hcp/infection-control/**

4. Is a new fingerstick device used for each patient/resident? ***Note:*** *This refers to both the lancet and any reusable lancet holders. Reusable lancet holders should not be used for more than one patient/resident, even if the lancet itself is changed.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Fingerstick devices should **never** be used for more than one person.
Auto-disabling **single-use** fingerstick devices should be used for assisted monitoring of blood glucose.
***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

Notes

5. If reusable fingerstick devices are used in the facility:

☐ N/A – reusable devices not used

5a. Is the device used **by the patient/resident** to perform self-monitoring of blood glucose?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

5b. Is the device **dedicated for use only on a single patient/resident** (e.g., discarded after they are discharged or given to them to take home)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

5c. Is the device labeled and stored in a manner to prevent cross-contamination or use on another patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

CDC recommends the use of single-use, auto-disabling fingerstick devices in settings where assisted blood glucose monitoring is performed. This practice prevents inadvertent reuse of fingerstick devices for more than one person. Additionally, the use of single-use, auto-disabling fingerstick devices protects healthcare personnel from needlestick injuries. If reusable fingerstick devices are used for assisted monitoring of blood glucose then they should be treated in a manner similar to other personal care items (e.g., razors and toothbrushes) and must never be shared. Facilities must take steps to assure that fingerstick devices are clearly labeled and stored in a manner to prevent inadvertent use for the wrong patient and cross-contamination from the surface of one fingerstick device to another.

Reusable fingerstick devices are appropriate for individuals who perform all steps of testing themselves. However, this equipment should be labeled with their name and these individuals should be educated that this equipment should be treated like other personal care equipment (e.g., razors, toothbrushes) and must never be shared. Transmission of HBV infection has been described in residential settings when individuals shared their personal blood glucose monitoring equipment with friends or family.

***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

6. Do HCP remove gloves and perform hand hygiene after the procedure?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

- Change gloves between patient contacts. Change gloves that have touched potentially blood-contaminated objects or fingerstick wounds before touching clean surfaces. Discard gloves in appropriate receptacles.
- Perform hand hygiene immediately after removal of gloves and before touching other medical supplies intended for use on other persons.

***Source*: hhttps://www.cdc.gov/injection-safety/hcp/infection-control/**

7. Is the POC blood testing meter cleaned and disinfected after every use according to manufacturer's instructions?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Notes

If possible, obtain the manufacturer's instructions for use to determine if facility procedures are appropriate and compatible with the POC blood testing meter being used.

- "Blood Glucose Meters
  - Whenever possible, blood glucose meters should be assigned to an individual person and not be shared.
    - If blood glucose meters must be shared, the device should be cleaned and disinfected after every use, per manufacturer's instructions, to prevent carry-over of blood and infectious agents. If the manufacturer does not specify how the device should be cleaned and disinfected then it should not be shared."

***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

"FDA has recently released guidance for manufacturers regarding appropriate products and procedures for cleaning and disinfection of blood glucose meters. This guidance, including a link to the Environmental Protection Agency (EPA) website can be found at FDA's Website. An excerpt from this guidance reads: "The disinfection solvent you choose should be effective against HIV, Hepatitis C, and Hepatitis B virus. Outbreak episodes have been largely due to transmission of Hepatitis B and C viruses. However, of the two, Hepatitis B virus is the most difficult to kill. Please note that 70% ethanol solutions are not effective against viral bloodborne pathogens and the use of 10% bleach solutions may lead to physical degradation of your device. View a list of Environmental Protection Agency (EPA) registered disinfectants effective against Hepatitis B" Healthcare personnel should consult the manufacturers of blood glucose meters in use at their facilities to determine what products, meeting the criteria specified by the FDA, are compatible with their meter prior to using any EPA-registered disinfectant for disinfection purposes. If manufacturers are unable to provide this information then the meter should not be used for multiple patients."

***Source*: hhttps://www.cdc.gov/injection-safety/hcp/infection-control/**

8. Is there a process to ensure HCP know that the POC blood testing meter has been cleaned and disinfected (e.g., if it is not in the clean storage area then they assume it has not been cleaned and disinfected)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
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9. Is the POC blood testing meter handled and stored in a manner to prevent recontamination after cleaning and disinfection?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
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"Maintain separation between clean and soiled equipment to prevent cross contamination."

***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

10. If meters are dedicated to individual patients/residents, is the meter labeled and stored in a manner to prevent cross-contamination or use on another patient/resident?

- ○ N/A – meters are not dedicated
- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
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Blood glucose meters dedicated for single-patient use should, ideally, be stored in the patient's room in a manner that will protect against inadvertent use for additional patients and cross-contamination via contact with other meters or equipment. An evaluation of instrument storage areas in hospitals found that 20% of areas where blood glucose meters were stored were contaminated with blood. If facilities are not able to safely store meters in patient rooms, they need to take steps to ensure that meters are not inadvertently used for the wrong patient and that cross-contamination from the surface of one meter to another does not occur. If the blood glucose meter becomes contaminated through inappropriate storage, subsequent patients could be exposed to infectious agents, even if the meter itself does not have direct patient contact.

***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

Notes

Ideally, make observations of at least 2 different staff. If direct observations cannot be gathered, then information can be obtained by asking staff.

Observation 2

1. Are clean supplies accessed in a manner to prevent contamination (e.g., is the test strip container accessed with clean hands from the clean supply cart prior to entering the patient/resident treatment area)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Perform hand hygiene….before touching other medical supplies intended for use on other persons."
***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**
"Maintain separation between clean and soiled equipment to prevent cross contamination."
***Source*: https://www.cdc.gov/infection-control/hcp/core-practices/**

2. Do HCP perform hand hygiene before performing POC blood testing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Use an alcohol-based hand rub or wash with soap and water for the following clinical indications:
a. Immediately before touching a patient.
b. Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices."
Additional indications for when hands must be cleaned can be found in the link below.
***Source:* https://www.cdc.gov/infection-control/hcp/core-practices/**

3. Do HCP wear gloves when performing POC blood testing?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Wear gloves during blood glucose monitoring and during any other procedure that involves potential exposure to blood or body fluids."
***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

4. Is a new fingerstick device used for each patient/resident? ***Note:*** *This refers to both the lancet and any reusable lancet holders. Reusable lancet holders should not be used for more than one patient/resident, even if the lancet itself is changed.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

Fingerstick devices should **never** be used for more than one person.
Auto-disabling **single-use** fingerstick devices should be used for assisted monitoring of blood glucose.
Source: **https://www.cdc.gov/injection-safety/hcp/infection-control/**

Notes

5. If reusable fingerstick devices are used in the facility:

☐ N/A – reusable devices not used

5a. Is the device used **by the patient/resident** to perform self-monitoring of blood glucose?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

5b. Is the device **dedicated for use only on a single patient/resident** (e.g., discarded after they are discharged or given to them to take home)?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

5c. Is the device labeled and stored in a manner to prevent cross-contamination or use on another patient/resident?

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

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7. Is the POC blood testing meter cleaned and disinfected after every use according to manufacturer's instructions?

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If possible, obtain the manufacturer's instructions for use to determine if facility procedures are appropriate and compatible with the POC blood testing meter being used.

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  - Whenever possible, blood glucose meters should be assigned to an individual person and not be shared.
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***Source*: https://www.cdc.gov/injection-safety/hcp/infection-control/**

Notes

TIPS FOR MEETING THE CLEANING AND DISINFECTION OF BLOOD GLUCOSE METERS REQUIREMENTS IN SKILLED NURSING FACILITES

The Centers for Disease Control and Prevention (CDC) has become increasingly concerned about the risks for transmitting hepatitis B virus (HBV) and other infectious diseases during assisted blood glucose monitoring.1 An underappreciated risk of blood glucose 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.[1]

Outbreaks of hepatitis B virus (HBV) infection associated with blood glucose monitoring have been identified with increasing regularity, particularly in long-term care settings, such as nursing homes and assisted living facilities, where residents often require assistance with monitoring of blood glucose levels.1 CMS has listed regulatory requirements for the use of blood glucose meters in nursing homes as part of F-tag 880 Infection Control.[2]

We have listed some tips to meeting the infection control and regulatory requirements based on review of common reasons facilities are cited for non-compliance with infection control regulations.

Whenever possible assign blood glucose meter to an individual person.[1]

TIP: Label blood glucose meter with resident's name to protect against inadvertent use of the device for additional residents.

TIP: Place in storage bag in designated location to avoid cross-contamination via contact with other meters or equipment.

TIP: Consider a plastic "pencil case" that can be cleaned easily and assigned to a resident as a better choice than a plastic bag for storage.

If blood glucose meter must be shared, clean and disinfect it after every use, per manufacturer's instructions.[1] To prevent carry-over of blood and infectious agents.[1]

TIP: Consult the manufacturer of the blood glucose meter(s) used in the facility to determine what products, meeting the criteria specified by the FDA, are compatible with their meter prior to using any EPA-registered disinfectant for disinfection purposes. If the manufacturer does not specify how the device should be cleaned and disinfected, then it should not be shared.[2]

TIP: Keep the manufacturer's recommended disinfectant in the medication cart and at other easily accessible locations.

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[1] CDC Infection Prevention during Blood Glucose Monitoring and Insulin Administration, Last reviewed: March 2, 2011. Considerations for Blood Glucose Monitoring and Insulin Administration | Injection Safety | CDC Accessed 3-20-2024

[2] CMS State Operations Manual Appendix PP (page 767) - Guidance to Surveyors for Long Term Care, Rev. 211, 02-03-23, §483.80 Infection Control https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf Accessed 3-20-2024

[3] CDC Disinfection and Sterilization, Last reviewed: May 24, 2019. https://www.cdc.gov/infection-control/hcp/disinfection-and-sterilization Accessed 3-20-2024

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TIPS FOR MEETING THE CLEANING AND DISINFECTION OF BLOOD GLUCOSE METERS REQUIREMENTS IN SKILLED NURSING FACILITES

TIP: Make cleaning and disinfecting the blood glucose meter after use and the disinfectant to be used part of the blood glucose testing order on the Medication/Treatment Administration Record.

TIP: Use the disinfectant specified by the manufacturer in the instructions. The CDC has recommended practices in healthcare settings. This information can be found at:

https://www.cdc.gov/injection-safety/hcp/infection-control/[2]

TIP: In general, the disinfectant should be effective against HIV, Hepatitis C, and Hepatitis B virus. A list of Environmental Protection Agency (EPA) registered disinfectants can be found at the following website:

https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants[2]

Ensure contact/dwell time for disinfectant is followed.

By law, all applicable label instructions on EPA-registered products must be followed.[3] Following the contact/dwell time ensures the disinfectant has enough time to kill the targeted organism.

TIP: Never fan or blow air on the surface to expedite the drying process!

TIP: Be sure disinfectant container is properly labeled and it is easy to read the contact/dwell time.

TIP: Do not place blood glucose meter inside medication cart or other designated location wet. Ensure dwell time has been met and blood glucose meter is dry before storing.

TIP: Use a timer to be sure you wait the entire contact/dwell time before storing.

[1] CDC Infection Prevention during Blood Glucose Monitoring and Insulin Administration, Last reviewed: March 2, 2011. Considerations for Blood Glucose Monitoring and Insulin Administration | Injection Safety | CDC Accessed 3-20-2024

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TIPS FOR MEETING THE CLEANING AND DISINFECTION OF BLOOD GLUCOSE METERS REQUIREMENTS IN SKILLED NURSING FACILITES

Perform Hand Hygiene (Hand washing with soap and water or use of an alcohol-based hand rub)

TIP: Wear gloves during blood glucose monitoring and during any other procedure that involves potential exposure to blood or body fluids.

TIP: Change gloves between resident contacts.

TIP: Change gloves that have touched potentially blood-contaminated objects or fingerstick wounds before touching clean surfaces. Discard gloves in appropriate receptacles.

TIP: Perform hand hygiene immediately after removal of gloves and before touching other medical equipment or supplies intended for use on other persons.[1]

Place barrier under blood glucose meter when in resident's room or placed on top of medication cart to avoid spread of microorganisms and contamination of surfaces and other equipment or supplies.

TIP: Place clean and dry paper towel(s) under blood glucose meter before placing on resident table or on top of medication cart.

TIP: Make sure blood glucose meter is cleaned and stored appropriately after each use.

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[1] CDC Infection Prevention during Blood Glucose Monitoring and Insulin Administration, Last reviewed: March 2, 2011. Considerations for Blood Glucose Monitoring and Insulin Administration | Injection Safety | CDC Accessed 3-20-2024

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Injection Safety Guidelines

from the Centers for Disease Control and Prevention

Injection Safety Guidelines From CDC

- Follow proper infection control practices and maintain aseptic technique during the preparation and administration of injected medications (e.g., perform hand hygiene).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injecting material or inserting a catheter into the epidural or subdural space.

Adapted from: Guideline for isolation precautions: preventing transmission of infectious agents in health care settings 2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at: http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf

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INJECTION SAFETY

Safe injection practices are recommendations intended to prevent transmission of infectious diseases between one patient/resident and another, or between the patient/resident and care provider.

Safe injection practices are a part of standard precautions that are applied to every person every time to ensure that injections are performed safely for the patient/resident and care provider.

Utilizing safe injection practices protects patients and/or residents and healthcare personnel from risk of disease transmission, including bacterial infections like MRSA, and bloodborne pathogens like HIV, hepatitis B or C virus. A good rule to remember is:

Safe injection practices should be incorporated into all practices related to the preparation and administration of injectable medications.

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INJECTION SAFETY

MEASURES TO ENSURE INJECTION SAFETY

- Prepare medications in a designated clean and uncluttered area.
- Use safety syringes for administering injections. Do not bend, break, or recap needles.
- Use aseptic technique to avoid contamination of sterile injection equipment.
- Do not administer medications from a syringe to multiple patients/residents.
- Use fluid infusion and administration sets (i.e., intravenous bags, tubing, and connectors) for one patient/resident only.
- Use single-dose vials for parenteral medications whenever possible. Verify expiration date.
- Do not administer medications from single-dose vials or ampules to multiple patients/residents or combine leftover contents for later use.
- If multidose vials must be used, both the needle or cannula and syringe used to access the multidose vial must be sterile. Once accessed, the vial must be labeled with the date opened.
- Do not keep multidose vials in the immediate patient/resident area. Discard if sterility is compromised or questionable.
- Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients/residents ("flush bags").
- Place used syringes in a sharps container. Remove sharps containers from service when 2/3 full to prevent overfilling.

Safe Injection Practices and Your Health | CDC

Injection Safety Resources for Providers | CDC

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HEALTH QUALITY INNOVATORS

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Injection Safety Resources for Providers | CDC

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INJECTION SAFETY

Video Links for Injection Safety

NC SPICE Just in Time-Safe Injection Practices video: https://vimeo.com/718759157

This toolkit was developed by AHCA with funding from the CDC Project Firstline Grant NU50CK000382-05-01

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