

Infection Prevention and Control Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

May 31st, 2024

Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to All Panelists

- Slides and recording will be made available later
- For continuing education credit, complete evaluation survey upon end of webinar
 - Must be registered individually to receive credit



Agenda

- Upcoming Webinars
- Viral Hepatitis in Long Term Care Settings
- Open Q & A



Upcoming Infection Prevention and Control Q&A 1:00 pm - 2:00 pm

Date	Infection Control Topic	Registration Link
Friday, June 28 th	Best Practice for Specimen Collection and Storage	https://illinois.webex.com/weblink/register/r4db9e 0331ce42a0ab89facf6b3f5fbce







The goal of these brief sessions is to focus on topics relevant to you, our long-term care providers. This attend-as-you-can series covers a different topic each session. Topics may include fall prevention, quality measures, infection prevention, NHSN reporting, emergency preparedness, rehospitalizations and much more!



SET UP A NURSING HOME VACCINE CLINIC

Telligen has partnered with the Community Pharmacy Enhanced Services Network (CPESN) to provide nursing homes with a vaccine clinic option. Included below are the offerings provided as a result of the partnership.

TELLIGEN WILL:

- Collaborate with CPESN to find a pharmacy for on-site vaccine services
- Support with logistics for scheduling and preparation work
- Cover pharmacy staff and travel time

PHARMACIES WILL:

- Provide influenza (while supplies last),
 COVID-19, pneumonia, and RSV vaccines
- Bring all vaccines, necessary supplies, and staff for immunizations
- Manage the required documentation to the state immunization registry
- Assist with determining vaccine eligibility for residents upon request
- Bill insurance for residents and staff to cover vaccine product and administration

If you would like to set up a vaccine clinic, please complete the <u>Vaccine Clinic Request</u> form by July 31, 2024. Clinics must be scheduled by August 31, 2024.







Viral Hepatitis in Long Term Care Settings

Rachel Deerwester, BSN, RN

Hillary Spencer, MD, MPH

Regional Infection Prevention Program (RIPP)

May 31, 2024

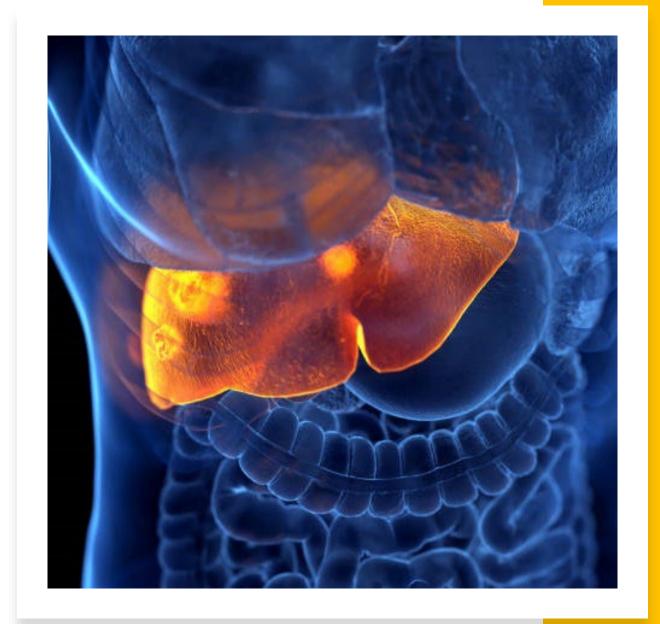
Overview

- Review of viral hepatitis
- Healthcare associated outbreaks of Hep B and Hep C
- Infection Prevention recommendations for Hepatitis
- Injection Safety
- Blood glucose monitoring

Hepatitis = Inflammation of the liver

May be infectious or non-infectious

- Non-infectious: due to toxins, drugs, alcohol, genetic disorders, autoimmune, etc.
- Infectious hepatitis
 - Rarely due to bacteria, fungi, or parasites
 - Most commonly due to viruses
 - Hepatitis viruses: A, B, C, D, E
 - Other viruses: EBV, CMV, HSV, Adenovirus, Coxsackievirus

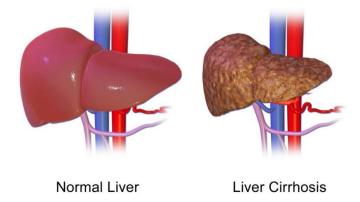


Acute vs Chronic Hepatitis

- Acute infection
 - Fever
 - Fatigue
 - Loss of appetite
 - Nausea
 - Vomiting
 - Abdominal pain
 - Dark urine
 - Light-colored stools
 - Joint pain
 - Jaundice

- Chronic infection
 - Asymptomatic for decades
 - Elevation of AST/ALT
 - Cirrhosis
 - Liver failure
 - Hepatocellular carcinoma
 - Death





Hepatitis ABCDE

- Hepatitis A = primarily foodborne, acute infection only, vaccine preventable
- Hepatitis B = primarily bloodborne and other contact with body fluids, acute and chronic, vaccine preventable
- Hepatitis C = bloodborne/body fluids, acute and chronic, no vaccine, recent advances in drug therapy
- Hepatitis D = only occurs in people also infection with hepatitis B, bloodborne, acute and chronic
- Hepatitis E = rare in developed countries, domestic cases usually associated with travel, waterborne/fecal-oral/foodborne, usually selflimited (acute) but can be chronic in rare cases (e.g., solid organ transplant)



Risk of Chronic HBV and HCV

- Chronic HBV develops in ~5% of infected adults
 - 90% of infected infants and 30% of children infected at 1-5 years
- Chronic HCV develops in ~70% of people infected with the virus



Healthcare associated Hepatitis B and C

Long incubation period (up to 6 months)



Most acute infections are asymptomatic



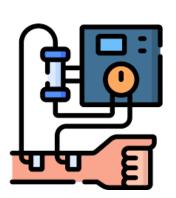
Under-recognition and reporting of healthcare associated cases/outbreaks











66 outbreaks of viral hepatitis related to healthcare reported to CDC 2008-2019

94% occurred in **non-hospital settings**

76% (19/25) of Hep B outbreaks occurred in LTC*

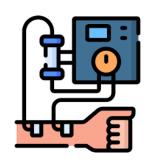
- 133 outbreak-associated cases of HepB
- 1679 at-risk persons notified for screening
- 79% associated with infection control breaks during assisted monitoring of blood glucose

*12 of 18 in Assisted Living



Hepatitis C Outbreaks in Healthcare Settings





51% (22/43) outbreaks occurred in hemodialysis settings



- 1344 outbreak-associated cases of HCV
- >80,293 persons notified for screening



9% (4/43) outbreaks occurred because of drug diversion by HCV-infected healthcare providers



Infection control breeches that lead to blood exposure from one patient to another

- Equipment reuse
- Cleaning/disinfection lapses during blood glucose monitoring
- Reuse of syringes
- Contaminated parenteral medications (e.g. multi-dose vials)

Procedures associated with LTC outbreaks, 2008-2019

- Blood glucose monitoring and fingerstick procedures
- Instrument sterilization during provision of podiatry care
- Nail care
- Phlebotomy





Drug diversion is under-recognized

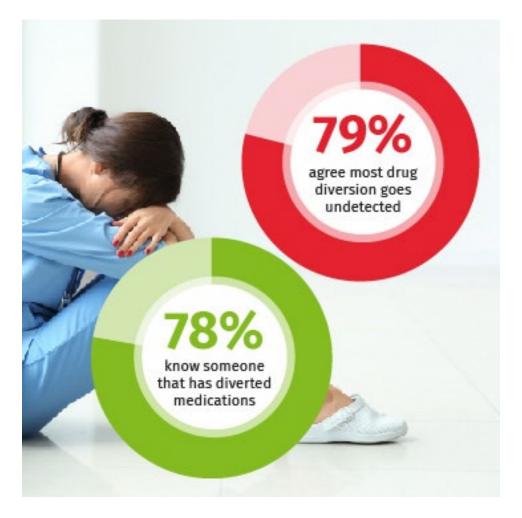


TABLE 1 Common Characteristics of Drug Diverters

High achiever, potentially an award winner

Very active in work activities

Preceptor

Well-liked by peers and medical staff

Works the night shift

Comes to work early and stays late

Volunteers for overtime or works when not scheduled

Serves in the critical care or other high acuity environment

Works for an agency

Has a current or recent prescription for the suspected diverted drug

Smoker or history of prior drug experimentation

<u>Develop a Drug Diversion Prevention Program : June 2015 - Pharmacy Purchasing & Products Magazine (pppmag.com)</u>

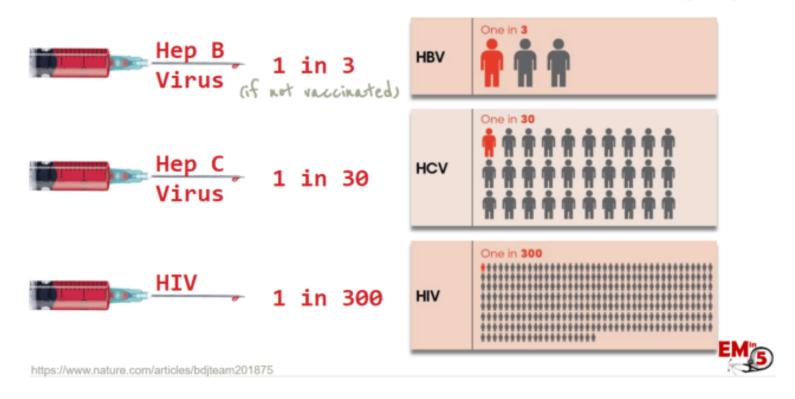
PURDUE NURSING RESEARCHERS ANALYZE MEDICATION THEFT IN LONG-TERM CARE FACILITIES

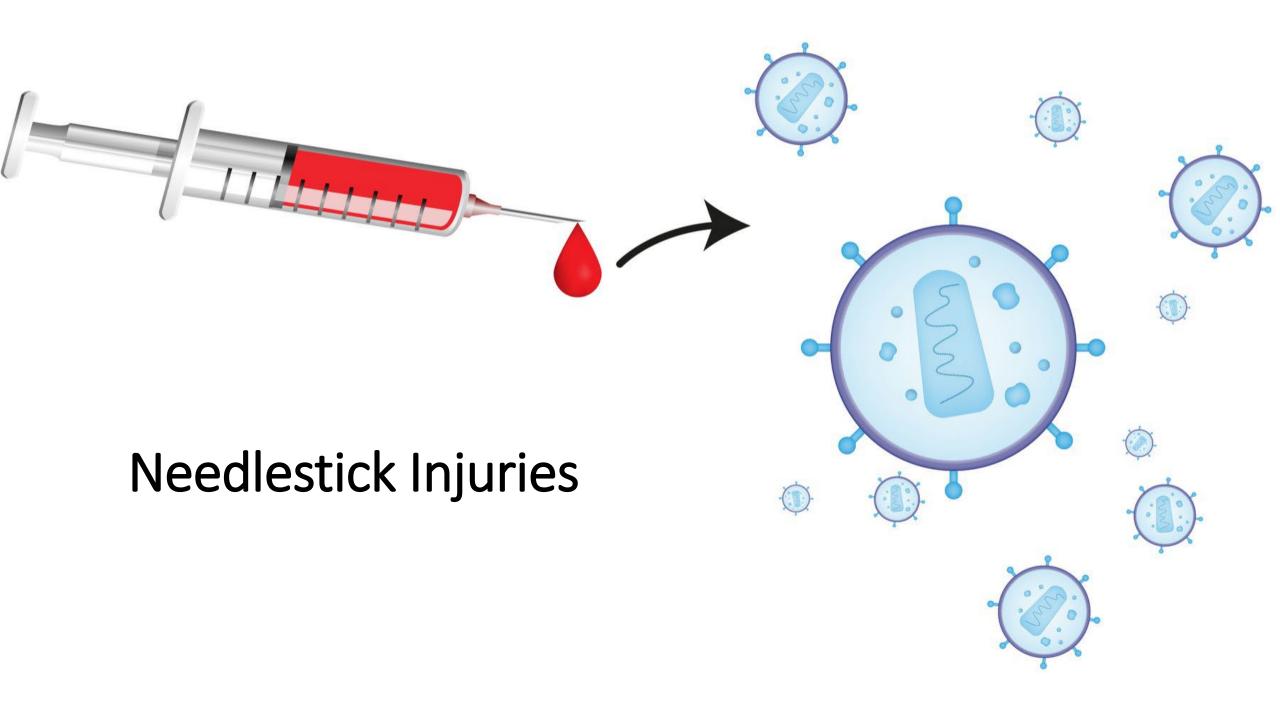
MAY 4, 2023

- 107 drug-theft reports from 104 LTC in Minnesota, 2013-2021
- 11,328 tablets stolen, mostly opioids, from 368 residents
- ~50% of employees who stole medications were nurses
- Many residents affected by drug diversion suffered from dementia

Needlestick Injuries

Risk of Transmission w/ Percutaneous Injury:





Step 1: Verify the diagnosis of *acute* hepatitis B or hepatitis C

A. Acute hepatitis B virus infection:

Presence of symptoms is a key factor in differentiating acute infections from chronic infections and should be assessed. Symptoms may include jaundice, dark urine, nausea, vomiting, abdominal pain, loss of appetite, fatigue, and joint pain. However, the majority of acute HBV infections are asymptomatic. To consider a case as acute, health departments should rely on medical history and information obtained from case investigation along with serologic findings with or without symptom onset.

Serologic markers indicating acute infection: positive hepatitis B surface antigen (HBsAg) <u>and</u> positive hepatitis B IgM core antibody (IgM anti-HBc).

B. Acute hepatitis C virus infection:

There are no serologic markers to differentiate between acute and chronic hepatitis C infection. Presence of symptoms is a key factor in differentiating acute infections from chronic infections and should be assessed. Symptoms may include jaundice, dark urine, nausea, vomiting, abdominal pain, loss of appetite, fatigue, and joint pain. However, the majority of acute HCV infections are asymptomatic. Therefore, health departments should also consider medical history and information obtained from case investigation along with a new finding of hepatitis C antibody or RNA positivity in a person not previously known positive (whether or not symptoms or ALT elevation are present).

Step 2: Assess exposure history with Viral Hepatitis Case Report

	STATE CASE NO.
Patient History- Acute Hepatitis B	NETSS ID NO.
During the 6 weeks- 6 months prior to onset of symptoms was the patient a contact of a person with confirmed or suspected acute or chronic hepatitis B virus infection? Yes No Unk If yes, type of contact Sexual	Ask both of the following questions regardless of the patient's gender. In the 6 months before symptom onset how many • male sex partners did the patient have?
During the 6 weeks- 6 months prior to onset of symptoms Did the patient- • undergo hemodialysis?	During the 6 weeks- 6 months prior to onset of symptoms • Did the patient have any part of their body pierced (other than ear)? where was the piercing performed? (select all that apply) commercial correctional other parlor / shop facility • Did the patient have dental work or oral surgery?

Step 3: Weigh likelihood that infection is due to healthcare vs non-healthcare exposures

• All acute cases of Hepatitis B or Hepatitis C in a Long Term Care Facility should be evaluated for healthcare exposure

- In community setting:
 - Individuals with other high-likelihood risk factors without healthcare exposure may not warrant thorough investigation (e.g. IV drug use, needle sharing, sex work, other high risk sexual behaviors, unregulated tattoo/piercing)
 - Examples that are concerning for health care transmission and deserve thorough investigation include diagnosis of acute hepatitis B or C (or documented seroconversion) occurring in a cancer, hemodialysis or transplant patient, long-term care resident, a child in the absence of infected household members, or routine blood donor.

Infection Prevention Recommendations for Hepatitis

Vaccinated against Hepatitis B

Tested for Hepatitis C if exposed

Standard precautions

Fundamental infection-control principles

Safe injection practices

Aseptic techniques.



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



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.





ALWAYS check the label!



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.



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!



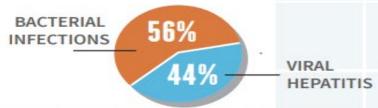
THE PATIENT

ADE ALL DATIENTS

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?



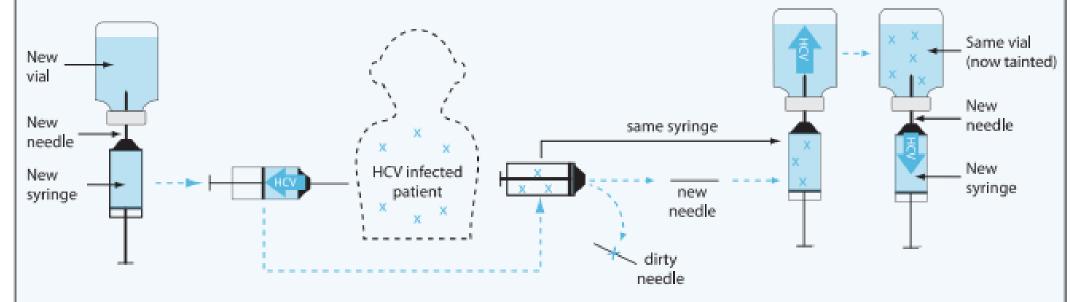
Did you use a clean needle and syringe to draw up this medication?



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

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.



- New needle and syringe are used to draw medication.
- When used on an HCV-infected patient, backflow from the injection contaminates the syringe. Changing the needle does not prevent contamination of the syringe.
- When reused to obtain medication, the contaminated syringe contaminates the medication vial.
- 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)



Provider Brochure (cdc.gov)

Blood Glucose Monitoring

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.
 - Must use appropriate contact time and staff must be able to speak to process/how to identify dirty vs clean.
 - Cannot be an over-the-counter type of glucometer. Must be healthcare grade. Unsure? Check Instructions for use
- Failing to change gloves and perform hand hygiene after a fingerstick procedure.
- <u>EPA Launches New List of Disinfectants Effective Against HIV, Hepatitis B, and Hepatitis C Viruses | US EPA;</u> <u>https://www.epa.gov/pesticides/epa-launches-new-list-disinfectants-effective-against-hiv-hepatitis-b-and-hepatitis-c</u>

Insulin Administration

Insulin pens should be assigned to individual persons and labeled appropriately.

Multi-dose vials of insulin should be dedicated to a single person whenever possible.

New needle, New syringe, every time!

Dispose of used injection equipment at point of use in an approved sharps container.

Training with Teach-back

- All frontline staff should be trained upon hire and annually in the job duties they are expected to perform.
 - This includes short-term, agency staff.
- Teach-back Method
 - Just as we do with patient education, we should be using a teach-back method to training staff as well.
 - Have staff verbalize steps of activity.
 - Have staff perform return demonstration.
 - Keep check on in their employee file to update annually.

Policy

- Frontline staff should know what the workplace policy is in case of a needlestick injury.
- This is considered an Emergency.
- Don't wait until this happens to find and follow policy.



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.	Yes No	
Note: This is different from the expiration date printed on the vial.		
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	

Safe-Injection-Checklist-P.pdf (cdc.gov)

Audit

- Audits are an important means of noting when additional training in response to lapses may be needed.
- Audits include Direct observation or monitoring of healthcare personnel adherence to job-specific IP measures.
- Formal audits include collection and aggregation of data to determine what proportion of time personnel are adhering to facilities policies and processes.
- Train performance monitoring personnel and use standardized tools and definitions.
- Audits should include assessment of critical practices.

Use the ICAR tool

- ICAR tool can be useful for IP and leadership staff to observe, train, and audit Infection Control (IC) practices.
- Look for the facilitator guide and observation tool under each module.
- Good baseline assessment of IC practices.

- Module 1 Training, Audits, Feedback PDF
- Module 2 Hand Hygiene PDF
- Module 3 Transmission-Based Precautions (TBP)
- Module 4 Environmental Services (EVS) PDF
- Module 5 High-level Disinfection and Sterilization PDF
- Module 6 Injection Safety PDF
- Module 7 Point of Care (POC) Blood Testing PDF
- Module 8 Wound Care PDF
- Module 9 Healthcare Laundry PDF
- Module 10 Antibiotic Stewardship PDF
- Module 11 Water Exposure PDF

Example of Observation tool

Part B. POC Blood Testing Facility Observations:	4. Is a new fingerstick device used for each patient/resident? Note: This refers to both the lancet and any reusable lancet holder. Reusable lancet holders should not be used for more than one patient/resident, even if the lancet itself is changed.
Ideally, make observations of at least 2 different staff. If direct observations cannot be gathered, then information can be obtained by asking staff.	 Yes No Not observed but endorsed by frontline staff Not observed and not endorsed by frontline staff
 Observation 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 	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/injectionsafety/fingerstick-devicesbgm.html
No Not observed but endorsed by frontline staff Not observed and not endorsed by frontline staff	Notes
"Perform hand hygienebefore touching other medical supplies intended for use on other persons." Source: https://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html "Maintain separation between clean and soiled equipment to prevent cross contamination." Source: https://www.cdc.gov/hicpac/recommendations/core-practices.html	3
 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 	5. If reusable fingerstick devices are used in the facility:N/A – reusable devices not used
"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/hicpac/recommendations/core-practices.html	 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
 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 	to them to take home)? Yes No Not observed but endorsed by frontline staff Not observed and not endorsed by frontline staff Is the device labeled and stored in a manner to prevent cross-contamination or use on another patient/resident? Yes
"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/injectionsafety/blood-glucose-monitoring.html	No Not observed but endorsed by frontline staff Not observed and not endorsed by frontline staff

ICAR Tool for General Infection and Control (IPC) Across Settings - Module 7. Point of Care (POC) Blood Testing Faciliator Guide (cdc.gov)

Contract Services

- Ensure contract services such as dialysis, wound care, podiatry, and dental care are following key infection control practices as well.
 - IP survey during care rounds



Project Firstline Micro-learn

Micro-Learns-Blood-508.pdf (cdc.gov)

Blood Micro-Learn Discussion Guide:

What to do when you see blood

Use the talking points below and accompanying job aid to engage your team in short, focused discussion. Adapt to meet your needs.

1. Introduce the topic

Share key information about the topic that your audience should know and connect to your local context:

- Always assume blood is infectious. People who are infected with bloodborne pathogens don't always have symptoms, but their blood and some body fluids still have virus in them.
- The pathogens in blood that are the most concerning infection risks in health care are HIV, hepatitis B, and hepatitis C.
- Bloodborne pathogens can be spread when infected blood enters the body, like:
- From a needlestick
- Through breaks or cracks in the skin, or
- By splashes or sprays to the eyes, nose, or mouth

2. Expand on the topic

Share information about what your audience should do:

- Because we always assume blood is infectious, infection control actions for blood focus on preventing infected blood from entering the body and limiting its spread in the environment and between people.
- Don't touch blood without gloves on.
- When you see blood, look for sharps.
 - If you see sharps, safely dispose of them in a sharps container.
 - If you're approaching a place where a procedure was done, be careful handling drapes, linens, or other items
 that might be hiding a needle or other used sharps.
- When you're using sharps, plan ahead. Pick one location to keep sharps in before you start a procedure so you
 can keep track of them and know where to find the sharps containers to dispose of them safely as soon as you're
 finished.

3. Discuss with your team

Find out how your audience feels about the topic. Sample questions include:

- What do you usually do when you see blood? Do you worry that you might catch something? When might you call for help or assistance?
- Do you have all the tools and information you need to do your job safely?
- As a team, how can we help each other take the right infection control actions when we see blood to keep germs from spreading?

4. Wrap up and reinforce

Reinforce key takeaways:

- Always assume blood is infectious.
- Don't touch blood without gloves on.

Share related facility-specific information and cue to follow-up opportunities:

- Connect content with information such as where to find sharps containers, what to do and whom to call if there is
 an exposure, recent cases or examples of issues, or other relevant information.
- Share reminders, prompts, and opportunities for further learning as appropriate, including the Project Firstline website at cdc.gov/projectfirstline.





Project Firstline Micro-learn Continued



Project Firstline

Germs can live in blood (cdc.gov)

GERMS CAN LIVE IN BLOOD.

WHERE IS THE RISK?

Know where germs live to stop spread and protect patients



- Viruses like HIV, hepatitis B, and hepatitis C can spread in healthcare when contaminated blood is on a sharp item.
- If that item causes a cut or break in someone else's skin (e.g., an accidental needlestick), germs can spread to that person and cause a new infection.
- Reusing needles or syringes is especially risky because germs in the blood can spread from one person to another.
- Blood in the environment like on linens or a device – grows bacteria and spreads via touch or devices.

Germs That Can Live in Blood

- HIV
- Hepatitis B
- Hepatitis C
- Bacteria (when outside the body)

Healthcare Tasks Involving Blood

- Putting in an IV
- Giving an injection
- Surgery and procedures
- · Changing soiled laundry

Infection Control Actions to Reduce Risk

- Hand hygiene
- Use of personal protective equipment (gloves, gowns, eye protection)
- Safe injections
- Cleaning and disinfection
- Textile management





WWW.CDC.GOV/PROJECTFIRSTLINE

Think blood!

Review your injection safety and blood glucose monitoring infection control practices — ensure you have a training and audit/review plan

Podiatry, dental services, dialysis, other invasive care

Open Q&A

Submit questions via Q&A pod to All Panelists

Please do not resubmit a single question multiple times

Slides and recording will be made available after the session.



Reminders

- For continuing education credit, please fill out the evaluation survey upon end of webinar
 - https://forms.office.com/g/2MeKSPJgy0?origin=lprLink
- SIREN Registration
 - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: http://www.dph.illinois.gov/siren
- Telligen Resources:

 - Contact Telligen: nursinghome@telligen.com

