

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: <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

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: <https://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: <https://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
 - Not observed and not endorsed by frontline staff
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
 - Not observed and not endorsed by frontline staff

"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
 - Not observed and not endorsed by frontline staff

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

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: <https://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: <https://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
 - Not observed and not endorsed by frontline staff
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
 - Not observed and not endorsed by frontline staff

"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
 - Not observed and not endorsed by frontline staff

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