

Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission

DATE:	5/2/22
TO:	Health Alert Network
FROM:	Denise A. Johnson, M.D., FACOG, FACHE, Acting Secretary of Health
SUBJECT:	Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a “Health Alert”: conveys the highest level of importance; warrants immediate action or attention.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING, AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE; **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

Summary

- The Pennsylvania Department of Health, Bureau of Epidemiology, has recently received an increase in reports of failure to disinfect blood glucose monitors between patients/residents.
- Failure to disinfect blood glucose monitors has been documented to lead to transmission of bloodborne pathogens.
- The Pennsylvania Department of Health is alerting all providers of assisted blood glucose monitoring and requesting they:
 - **Review existing policies and procedures** for blood glucose meter cleaning and disinfection. Policies and procedures should align with existing standards;
 - **Provide repeat education** about proper cleaning, disinfection, and storage of blood glucometers to staff as soon as possible.
 - **Routinely monitor blood glucose testing** in your facility (i.e., regular auditing) to ensure adherence to proper procedure.
 - Always **report breaches in infection control**, outbreaks, or unusual clusters of illness to the Bureau of Epidemiology by calling 1-877-PA-HEALTH or your local health department.

The Pennsylvania Department of Health (Department) has become increasingly concerned about the risks for transmitting infectious bloodborne diseases during assisted blood glucose (blood sugar) monitoring. Recent events reported to the Bureau of Epidemiology all included a failure to properly disinfect blood

glucose meters (glucometers) between uses. Blood glucose monitoring poses a risk for exposure to bloodborne pathogens such as hepatitis B virus, hepatitis C virus, and HIV. The risk of infection is present in settings where blood glucose monitoring equipment is shared or those assisting with blood glucose monitoring fail to follow basic principles of infection control, including hand hygiene.

The Department is alerting all providers of assisted blood glucose monitoring and requesting they:

- **Closely review infection prevention and control policies and procedures** for cleaning, disinfecting, and storing blood glucometers. Policies and procedures should align with [standards from the Centers for Disease Control and Prevention \(CDC\)](#). Blood glucometers should be stored in a dedicated space away from patient/resident areas.
- **Provide repeat and ongoing education** about proper cleaning, disinfection, and storage of blood glucometers.
 - Staff should be trained upon hire, at least annually, ~~upon hire~~, and when new equipment is introduced to the facility.
 - Staff training should include a competency-based component with demonstration of the learned skill.
 - A 10-minute video from the Oregon Patient Safety Commission and the Oregon Health Authority providing best practices for blood glucose monitoring can be found here: https://www.youtube.com/watch?v=dddSV0Tu_AE.
- **Routinely monitor blood glucose testing** in your facility to ensure adherence to proper procedure.
 - Use a standardized auditing tool such as the point-of-care testing observation tool available in the [CDC Infection Control Assessment and Response \(ICAR\)](#) tool.
- **Report any breaches** of infection prevention and control that include a risk of bloodborne pathogen transmission, including a failure to disinfect blood glucose monitors between uses, to the Bureau of Epidemiology by calling 1-877-PA-HEALTH or if applicable, to your local health department.

More information about blood glucometer infection prevention and control can be found at the Centers for Disease Control and Prevention webpage: <https://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html>.

Infection Prevention and Control Recommendations Related to Blood Glucose Monitoring:

CDC advises that fingerstick devices should never be used for more than one person. Whenever possible, blood glucometers should not be shared. If they must be shared, the device should be labeled as multi-patient and be cleaned and disinfected after every use, per manufacturer's instructions. **If the manufacturer does not specify how the device should be cleaned and disinfected between patients, then it should not be shared.** Devices labeled "self-monitoring" are not designed for multi-person use.

The primary infection control measures for prevention of blood glucometer-related bloodborne pathogen infections in healthcare settings are:

- Restrict use of fingerstick devices to individual persons. They should *never* be used for more than one person. Select single-use lancets that permanently retract upon puncture. This adds an extra layer of safety for the patient/resident and the provider.
- Dispose of used lancets at the point of use in an approved sharps container. Never reuse lancets.
- Clean supplies and medications should be maintained in clean areas separate from used supplies and equipment (e.g., glucometers). Do not carry supplies and medications in pockets.
- Wear gloves during blood glucose monitoring and during any other procedure that involves potential exposure to blood or body fluids.
- Change gloves between patient/resident 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.
- Provide a full hepatitis B vaccination series to all previously unvaccinated staff persons whose activities involve contact with blood or body fluids, including those who conduct assisted blood glucose monitoring.
- Establish responsibility for oversight of infection control activities. Provide staff members who assume responsibilities for fingersticks and injections with infection control training on hire and at least annually.
- Regularly assess adherence to infection control recommendations for blood glucose monitoring by observing staff who perform or assist with these procedures and tracking use of supplies. A tool for observing point-of-care testing is available in the [CDC Infection Control Assessment and Response \(ICAR\)](#) tool.
- Report to public health any newly acquired bloodborne infection, such as hepatitis B, in a patient, facility resident, or staff member as required by law into [PA-NEDSS](#).
- Report any patient/resident infections related to the use of potentially contaminated medical products to [FDA's MedWatch Adverse Event Reporting program](#).

Providers of assisted blood glucose monitoring should report any breaches of infection prevention and control that include a risk of bloodborne pathogen transmission, including a failure to disinfect blood glucose monitors between uses, to the Bureau of Epidemiology by calling 1-877-PA-HEALTH or if applicable, to your local health department.

For more information regarding bloodborne pathogen transmission associated with unsafe practices during assisted monitoring of blood glucose, consult the following resources:

- Centers for Disease Control and Prevention. [Nosocomial hepatitis B virus associated with spring-loaded fingerstick blood sampling devices – Ohio and New York City, 1996](#). *MMWR* 1997;46:217-221.
- Centers for Disease Control and Prevention. [Transmission of hepatitis B virus among persons undergoing blood glucose monitoring in long-term-care facilities—Mississippi, North Carolina, and Los Angeles County, California, 2003-2004](#). *MMWR* 2005;54:220-223.
- Klonoff DC, Perz JF. [Assisted Monitoring of Blood Glucose: Special Safety Needs for a New Paradigm in Testing Glucose](#). *J Diabetes Sci Technol* 2010;4(5):1027-1031
- Thompson ND, Barry V, Alelis K, Gui D, Perz JF. [Evaluation of the Potential for Bloodborne Pathogen Transmission Associated with Diabetes Care Practices in Nursing Homes and Assisted Living Facilities](#), Pinellas County. *JAGS* 2010;58:914-918.

Any questions or concerns should be directed to the Department at 1-877-PA-HEALTH or your local health department.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of 5/2/22, but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.