

## Policy Statement

Ambulatory health clinics within the City of Philadelphia will be required to adhere to safe injection practices to prevent the transmission of infections from one patient to another, from a healthcare provider to a patient, and to prevent harms such as needlestick injuries. Safe injection practices include adherence to aseptic technique, use of single-use needles, cannulae, syringes and fluid infusion and administration sets, and use of single-dose medication vials and blood glucose monitoring equipment whenever possible<sup>1</sup>. If multi-dose vials must be used within a facility, these vials along with the needles used to access the vials should be sterile. Multidose vials should be assigned to a single patient and kept outside of the immediate patient treatment area ideally.



## Background

Recent outbreaks of hepatitis B and hepatitis C in ambulatory care and long-term care settings have highlighted the severe consequences of infection control breaches<sup>2</sup>. Infection control breaches included reinsertion of needles into a multiple-dose vial and use of a single needle/syringe/device to administer intravenous medication to or monitor blood glucose levels among multiple patients in addition to other infection control lapses. These outbreaks resulted in notification of exposure to bloodborne pathogens to thousands of patients and the referral of healthcare providers to licensing boards for reviews. Adherence to infection control standards and safe injection practices could have completely prevented such occurrences.

This policy provides injection safety guidelines that should be adhered to within ambulatory care settings to prevent the transmission of infections such as viral hepatitis B and C, HIV, and bacteria to patients. The policy procedures are adapted from the *Healthcare Infection Control Practices Advisory Committee 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*. This policy also supplements the Occupational Safety and Health Administration Bloodborne Pathogens Standard<sup>3</sup>.

## Procedures

All Philadelphia Department of Public Health Ambulatory Health Clinics must practice injection safety. Injection safety promotes practices intended to prevent the transmission of infections between patients, between healthcare providers and patients, and to protect all from harms associated with injections such as needlesticks. The following procedures outline specific injection safety guidelines:

- Use aseptic technique to avoid contamination of sterile injection equipment.
- Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed.
- Fluid infusion and administration sets (e.g. intravenous bags, tubing, connectors) should be used for one patient only and disposed of after use.
  - Syringes and needles used to enter or connect to a patient's intravenous (IV) infusion bag or administration set are subsequently contaminated and should not be used on another patient, medication vial, or intravenous set.
  - Bags and bottles of intravenous solution should not be used as a common source of supply for multiple patients
- Use single dose vials for parenteral medications when possible. Never use medications packaged as single-dose for multiple patients.
- When multi-dose medication vials must be used they should be:
  - Assigned to a single patient whenever possible.
  - Stored in accordance with manufacturer's recommendations and preferably in a locked room, cabinet, or cart outside of the immediate patient treatment area.
  - Handled by dedicated staff and drawn immediately before a procedure.
- Diaphragms of medication vials should be cleaned with 70% alcohol before inserting a device into the vial.
- Auto-disabling single-use fingerstick devices should be used for assisted monitoring of blood glucose and should never be used for more than one person<sup>4</sup>. Insulin pens should also be designated for a single individual through appropriate labeling and never shared<sup>5</sup>.
- Blood glucose meters should be designated for individual patients when possible. If blood glucose meters are shared, they should be cleaned and disinfected after every use per manufacturer's instructions and when visibly contaminated. If disinfection instructions are not provided, meters should not be used for more than one person<sup>4</sup>. Meters should be stored in clean areas, not in pockets.
- Dispose of used syringes, needles, and other sharps at the point of use in dedicated sharps containers designed to be puncture-resistant, leak-proof, and closable.
- Adhere to federal and state requirements for the protection of healthcare providers from exposure to bloodborne pathogens.

## References

1. Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Available at: <http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf>
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3. OSHA. OSHA. Department of Labor: Occupational Safety and Health Administration. Occupational exposure to bloodborne pathogens: Final rule. 29 CFR Part 1910:1030 Federal Register 1991;56:64003-64182 Revised 2001 CFR 66 2001:5317-25.
4. Centers for Disease Control and Prevention (CDC). Infection Prevention during Blood Glucose Monitoring and Insulin Administration. Atlanta (GA):US Department of Health and Human Services. CDC; 2011. Available at: <http://www.cdc.gov/injectionsafety/blood-glucose-monitoring.html>. Accessed September 23, 2011.
5. Food and Drug Administration (FDA). Letter to Manufacturers of Blood Glucose Monitoring Systems Listed With the FDA. Silver Spring (MD): US Department of Health and Human Services. FDA; 2010. Available at: <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHealthcareProfessionals/ucm133352.htm>. Accessed: September 23, 2011