



Frequently Asked Questions (FAQ)

Injection Safety FAQs for Health Care Providers August 31, 2009

What are some of the incorrect practices that have resulted in transmission of pathogens?

Practices that have resulted in transmission of HCV and/or HBV include the following:

- Using the same syringe to administer medication to more than one patient, even if the needle was changed;
- Using the same medication vial for more than one patient, and accessing the vial with a syringe that has already been used to administer medication to a patient;
- Using a common bag of saline or other intravenous fluid for more than one patient, and accessing the bag with a syringe that has already been used to flush a patient's catheter.

Can some of these incorrect practices also result in transmission of bacterial infections?

YES. These incorrect practices put patients at risk for bacterial, fungal, and viral infections.

How should a health care provider prepare medications?

Parenteral medications should be accessed in an aseptic manner. This includes using a new sterile syringe and 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, if a medication vial has already been opened, the rubber septum should be disinfected with alcohol or other approved antiseptic prior to piercing.

Where should a health care provider prepare medications?

Medications should be prepared in a designated "clean" medication area that is not adjacent to areas where potentially contaminated items are placed. Examples of contaminated items that should not be placed in or near the medication preparation area include: used equipment such as syringes, needles, intravenous tubing, blood collection tubes, needle holders (e.g., Vacutainer holder), or other soiled equipment or materials that have been used in a procedure. In general, any item that could have come in contact with blood or body fluids should not be in the medication preparation area. Medication should not be prepared or stored in an area where clinical specimens are processed, such as a laboratory.

What does single-use mean?

A single-use parenteral medication should be administered to one patient only. Single-use intravenous solutions should be administered to one patient only, during one treatment only. Syringes and needles should be used for a single patient for a single procedure.

Is it acceptable to combine leftover medication from single-use vials?

NO. Do not administer medications from single-dose vials or ampoules to multiple patients or combine leftover contents for later use.

Is it acceptable to use single-use medication vials or pre-filled syringes for more than one patient?

NO. Medication vials that are labeled for single-use and pre-filled medication syringes should never be used for more than one patient.

Is it acceptable to leave a needle or other device inserted in the septum of a medication vial for multiple medication draws?

NO. A needle or other device should never be left inserted into a medication vial septum for multiple uses. This provides a direct route for microorganisms to enter the vial and contaminate the fluid.

What is the best way to use multi-dose vials?

If multi-dose vials must be used, the safest thing to do is restrict each medication vial to a single patient, even if it's a multi-dose vial. Proper aseptic technique must always be followed. If multi-dose medication vials must be used for more than one patient, the vial must only be accessed with a new sterile syringe and needle.

When should a multi-dose vial be discarded?

If stored in accordance with the manufacturer's instructions, **unopened** medication vials can be used until the expiration date noted on the vial. Multi-dose medication vials should be dated upon opening. Health care providers should follow the manufacturer's instructions to determine when the product should be discarded after opening. If the manufacturer does not provide specific instructions, the opened vial should be discarded 28 days after opening. Vials should be discarded immediately if sterility is compromised or there is a question regarding the integrity of the medication. Please note that the CDC states that unused portions of multidose vials of *vaccines*, stored according to the manufacturer's instructions, may be used until expired, if not contaminated or unless otherwise stated in the manufacturer's product information. Health care providers should develop policies regarding the use, handling and disposal of multi-dose vials.

Is it acceptable to use the same syringe to give intramuscular or subcutaneous injections to more than one patient if the needle is changed between patients?

NO. Once used, syringes and needles are both contaminated and must be discarded. Use a new needle and a new syringe for each patient.

If a syringe is used to infuse medications into an intravenous tubing port that is several feet away from the patient's intravenous catheter site, is it acceptable to use the same syringe for another patient?

NO. Everything from the medication bag to the patient's catheter is a single interconnected unit. All of the components are directly or indirectly exposed to the patient's blood and cannot be used for another patient. A syringe that enters through any port in the intravenous tubing or bag is considered contaminated and must not be used for another patient. Separation from the patient's

intravenous catheter site by distance, gravity and/or positive infusion pressure does not ensure that small amounts of blood are not present in these items.

Are these recommendations new? Are these guidelines specific to NJ?

NO. These recommendations are part of established guidance and are the accepted standard of care. These recommendations are endorsed by the Centers for Disease Control and Prevention (CDC), the Associations for Professionals in Infection Control and Epidemiology (APIC), and other professional associations.

Why can't a health care provider visually inspect syringes to determine whether they are contaminated and can be used again?

Pathogens including HCV, HBV and human immunodeficiency virus (HIV) can be present in sufficient quantities to produce infection in the absence of visible blood. Similarly, bacteria and other microbes can be present without clouding or other visible evidence of contamination. Just because you do not see blood or other material in a used syringe or intravenous tubing does not mean the item is free from potentially infectious agents. All used supplies and materials are potentially contaminated and must be discarded.

How can health care providers ensure that injections are performed correctly?

To help ensure that staff understand and adhere to safe injection practices:

- Designate someone to provide ongoing oversight for infection control issues,
- Develop written infection control policies,
- Provide training, and
- Conduct quality assurance assessments.

What has happened when infection control breaches have occurred?

Breaches in infection control in health care settings have resulted in one or more of the following:

- Transmission of bloodborne viruses including HCV and HBV to patients;
- Notification of thousands of patients of possible exposure to bloodborne pathogens and recommendation that they be tested for HCV, HBV and HIV;
- Referral of providers to licensing boards for disciplinary action; and
- Malpractice suits filed by patients.

References

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