



Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care

MODULE 6 — Safe Injection Practices

Modules in the Slide Series

1. Introduction
2. Hand Hygiene
3. Personal Protective Equipment
4. Respiratory Hygiene/Cough Etiquette
5. Sharps Safety
- 6. Safe Injection Practices (this module)**
7. Sterilization and Disinfection of Patient-Care Items and Devices
8. Environmental Infection Prevention and Control
9. Dental Unit Water Quality
10. Program Evaluation

New Elements Added to Standard Precautions in 2007

- Infection control problems that are identified in the course of outbreak investigations often indicate the need for new recommendations or reinforcement of existing infection control recommendations to protect patients.
- Two areas of practice relevant to dentistry that were added:
 - Respiratory hygiene/cough etiquette
 - **Safe Injection Practices**

Safe Injection Practices

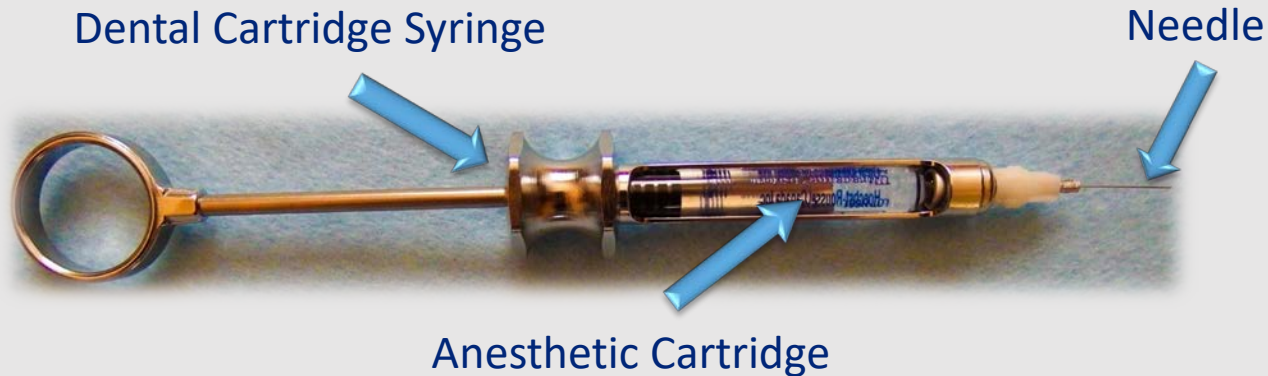
A set of measures intended to prevent transmission of infectious diseases between one patient and another or between a patient and dental health care personnel (DHCP) during preparation and administration of injectable (e.g., intravenous, intramuscular injection) medications.

Injectable Medications

- Medications that are injected into the body—most frequently by intravenous or intramuscular routes.
- DHCP most frequently handle injectable medications when administering local anesthesia.
 - Handle safely to prevent transmission of infections.
- Cases of disease transmission have been reported.
 - A 2013 patient-to-patient transmission of hepatitis C virus in a dental health care setting likely occurred through a combination of unsafe injection practices.

Administration of Local Anesthesia

Needles and anesthetic cartridges are used for one patient only, and the dental cartridge syringe is cleaned and heat sterilized between patients.



Single and Multidose Medication Vials

- Single Dose Vials
 - A vial of liquid medication intended for injectable administration (injection or infusion) that is meant for use in a single patient for a single case, procedure, or injection. Single-dose or single-use vials are labeled as such by the manufacturer.
- Multidose Vials
 - A vial of liquid medication intended for injectable administration (injection or infusion) that contains more than one dose of medication. Multidose vials are labeled as such by the manufacturer.

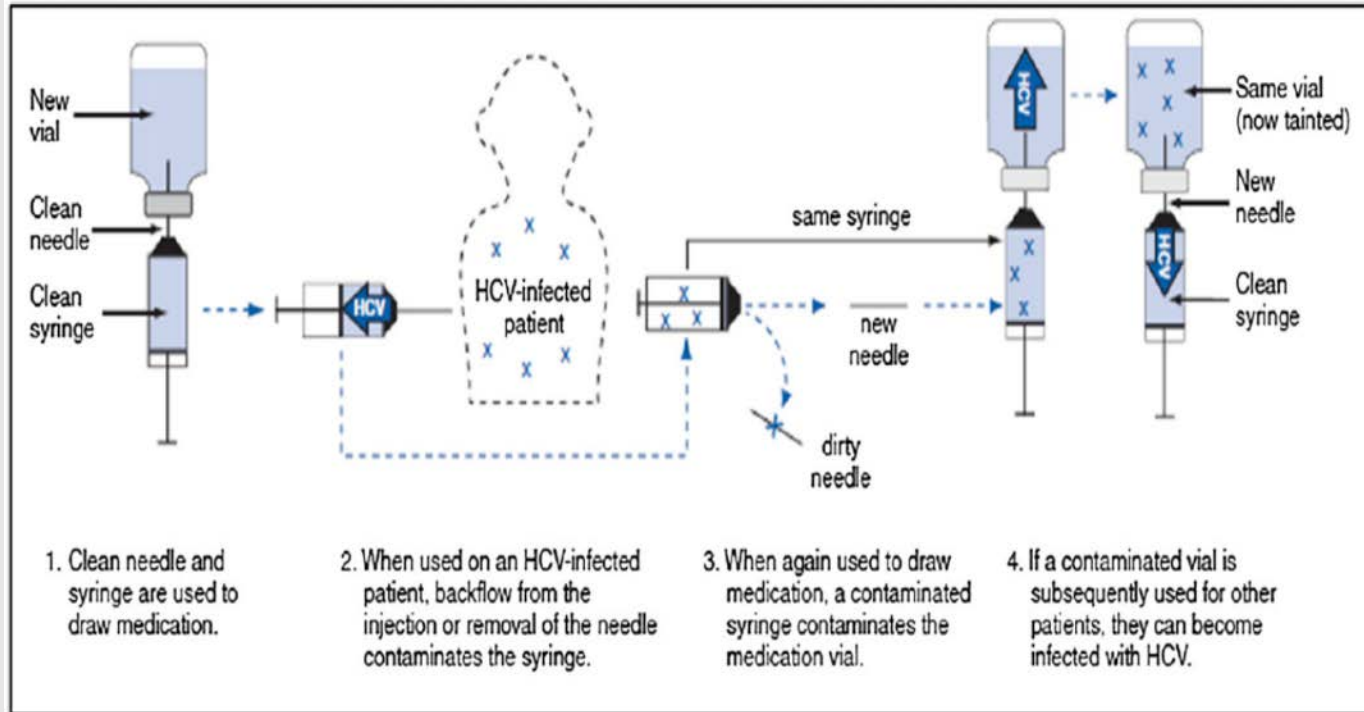
Unsafe Injection Practices

that have led to patient harm...

- Mishandling and inappropriate sharing of medication vials and containers.
- Reuse of syringes and needles.
- Preparation of medications in close proximity to contaminated supplies or equipment.



Unsafe Injection Practice



Source: [Acute Hepatitis C Virus Infections Attributed to Unsafe Injection Practices at an Endoscopy Clinic --- Nevada, 2007](#)

Safe Injection Practices – Recommendations

- Prepare injections using aseptic technique in a clean area.
- Disinfect the rubber septum on a medication vial with alcohol before piercing.
- Do not use needles and syringes for more than one patient.

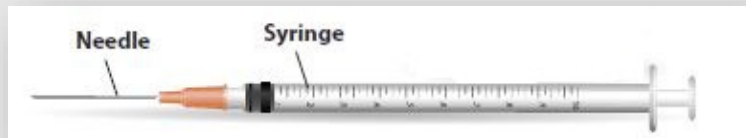
NOTE: When using a dental cartridge syringe to administer local anesthesia, do not use the needle or anesthetic cartridge for more than one patient. Ensure that the dental cartridge syringe is appropriately cleaned and heat sterilized before use on another patient.

Safe Injection Practices – Recommendations (Continued)

- Medication containers (single and multidose vials, ampoules, and bags) are entered with a new needle and new syringe, even when obtaining additional doses for the same patient.
- Use single-dose vials for injectable medications when possible.
- Do not use single-dose (single-use) medication vials, ampoules, or bags or bottles of intravenous solution for more than one patient.
- Do not combine (pool) leftover contents of single-dose vials for later use.

Safe Injection Practices— Recommendations for Multidose Vials

Dedicate multidose vials to a single patient whenever possible.



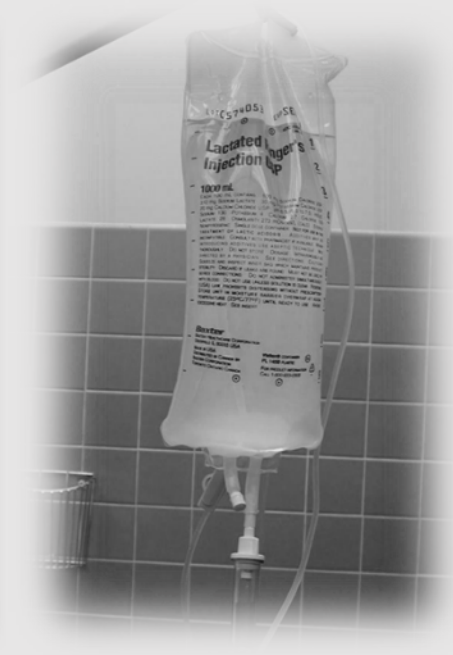
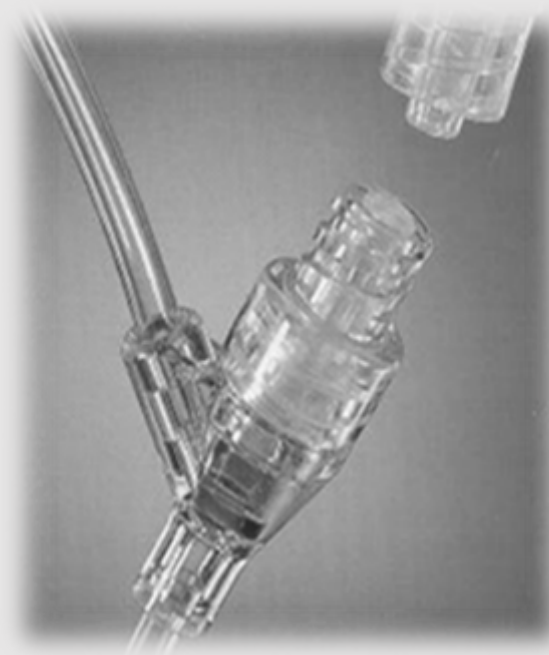
Safe Injection Practices – Recommendations for Multidose Vials (Continued)

- If multidose vials will be used for more than one patient, they should be restricted to a centralized medication area and should not enter the immediate patient treatment area to prevent inadvertent contamination.
- If a multidose vial enters the immediate patient treatment area, it should be dedicated for single-patient use and discarded immediately after use.
- Date multidose vials when first opened. Discard within 28 days unless the manufacturer specifies a shorter or longer date for that opened vial.

Safe Injection Practices

Fluid Infusion Recommendations

Do not use fluid infusion or administration sets (e.g., IV bags, tubings, connections) for more than one patient.



Safe Injection Practices Resources

- CDC. *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*
- CDC. Injection Safety website
- CDC. *Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care*
- CDC and the Safe Injection Practices Coalition. One & Only Campaign website
- World Health Organization. Injection Safety website

End of Module 6

For more information, contact Centers for Disease Control and Prevention (CDC).
1-800-CDC-INFO (232-4636)
TTY:1-888-232-6348 • www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC.