

Safe Injection Guidelines for Needle and Syringe Use

Standard IX of the American Association of Nurse Anesthetists (AANA) *Standards for Nurse Anesthesia Practice* states that Certified Registered Nurse Anesthetists (CRNAs) shall take precautions “to minimize the risk of infection to the patient, the CRNA, and other healthcare providers.”¹ Further, the AANA *Code of Ethics for the Certified Registered Nurse Anesthetist* states that every AANA member “has a personal responsibility to uphold and adhere”² to the ethical standards contained therein. Specifically, *Code of Ethics* 3.2 states that the “CRNA practices in accordance with the professional practice standards established by the profession.”² The AANA has historically taken a strong position concerning infection control and the AANA *Infection Control Guide for Certified Registered Nurse Anesthetists*³ has served as a valuable resource to CRNAs for many years.

Despite attempts to educate healthcare providers regarding the public hazards of syringe and needle reuse and other unsafe injection practices, transmission of bloodborne pathogens continues to occur in the United States.⁴⁻⁷ Within the years 1998 to 2008, there were 33 significant outbreaks involving transmission of the Hepatitis B or C viruses due to unsafe injection practices.⁵ These outbreaks placed over 60,000 patients at risk for contracting bloodborne infections.⁵

Successful prevention of the transmission of infectious agents involves adherence to best practices by the anesthesia professional. These guidelines address aspects of anesthesia care which involve the use of needles and syringes when administering injectable medications.

The following statements reflect current safe practices for needle and syringe use by CRNAs:

- **Never administer medications from the same syringe to multiple patients, even if the needle is changed.**^{8, 9}
- **Never reuse a needle,^{6, 10-12} or needleless access device even on the same patient.** Once a needle or access device has been used, it is considered contaminated and must be discarded in an appropriately identified sharps container. Access devices are single-use devices.^{6, 8}
- **Never refill a syringe once it has been used, even for the same patient.** Syringes are single-use devices.^{3, 6, 11-13} Once the plunger of a syringe has been completely depressed in order to expel the syringe contents (i.e., intravenous medication), the internal barrel of the syringe is considered contaminated and must be discarded in an appropriate fashion. A syringe must only be used **once** to draw up medication, and must not be used again even to draw up the same medication from the same vial for the same patient.¹³⁻¹⁶ CRNAs should weigh the risks of possible syringe contamination (e.g., from anesthesia workspace contamination¹⁷⁻²⁰) that may occur when repeatedly connecting and disconnecting a medication-filled syringe from an intravenous infusion set or other administration systems.
- **Never use infusion or intravenous administration sets on more than one patient.**⁸ Infusion and intravenous sets are single-patient use items and must be used according to applicable policies and guidelines. These devices are to be used on one patient only, and must never be used between patients.

- **Never reuse a syringe or needle to withdraw medication from a multidose vial (MDV).**^{6, 21} A new sterile syringe and needle or access device are required each time an MDV is accessed.^{8, 11, 22} Practitioners should avoid using MDVs if at all possible.^{11, 23} If MDV must be used, the practitioner should consider using that MDV on only one patient.^{9, 12} Although MDVs contain a preservative, they still may become contaminated with infectious agents due to unsafe practices. Do not access an MDV in the immediate patient treatment area unless the MDV is dedicated to a single patient and discarded immediately thereafter.^{8, 24}
- **Never reenter a single-dose medication vial, ampoule or intravenous infusion bag.**^{9, 21, 24, 25} It is not appropriate to prepare multiple intravenous flush syringes for single or multiple patients from the same single-dose intravenous solution bag or bottle (e.g., normal saline).^{6, 12, 26} It is not appropriate to prepare multiple fentanyl, midazolam, or propofol syringes for the same or multiple patients from the same single-dose medication vial, ampoule, or solution. Do not store a single-dose medication vial for future use. Do not reenter a single-dose medication vial, **even for the same patient.**

CRNAs have an ethical obligation to deliver care to minimize risk of infection for their patients or themselves. **Syringes and needles are single-use items that must only be used once.** These guidelines were written in accordance with best practices to enhance patient safety and minimize healthcare costs.²⁷

References

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3. *Infection Control Guide for Certified Registered Nurse Anesthetists*. Park Ridge, IL: American Association of Nurse Anesthetists; 2012.
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In January 2009, the AANA Board of Directors adopted Position Statement 2.13, *Safe Practices for Needle and Syringe Use*. This position statement was reaffirmed by the AANA Board of Directors in November 2012. In April 2014, the AANA Board of Directors archived this position statement and adopted the *Safe Injection Guidelines for Needle and Syringe Use*.