
The National Society of Dental Practitioners and the Dentist's Advantage Insurance Program for Dentists

RISK MANAGEMENT ARTICLE

Safe injection practice protects patients and providers

In 2013, Oklahoma health officials notified about 7,000 people that they might have been exposed to hepatitis and human immunodeficiency virus (HIV) while being treated at an oral surgery clinic. The problem was discovered as part of an investigation launched when a patient of the oral surgeon at the clinic was diagnosed with hepatitis C and HIV. According to a report from the Oklahoma Board of Dentistry, the multiple violations included using drug vials and needles multiple times on different patients. In addition, the oral surgeon's drug log was in disarray.

As of October 2013, 90 patients tested positive for hepatitis A, 6 for hepatitis B, and 4 for HIV. Ultimately, a class-action suit was filed against the oral surgeon. This is an extreme case, with multiple violations other than that related to the use of syringes and needles. But it reinforces the need to follow safe injection practices. Additional reinforcement comes from the Centers for Disease Control and Prevention (CDC), which reports that investigations by state and local health departments have identified improper use of syringes, needles, and medication vials. These practices have resulted in malpractice suits filed by patients, referral of providers to licensing boards for disciplinary action, and transmission of bloodborne viruses to patients. Although the reports did not include any dental offices or clinics, the problems described could occur in those settings unless safe injection practices are followed. Using safe injection practices safeguards the patient, protects dentists, and prevents negative outcomes that could result in litigation and loss of license.

Standards of care

As with any practice, it is essential to adhere to standards of care. Failure to do so can leave practitioners vulnerable to legal action when something untoward occurs, even when they might not be at fault. In addition, practitioners can also be harmed themselves, as in the case of disease transmission as the result of poor injection practices.

Any plaintiff attorney involved in a lawsuit regarding unsafe injection practice is likely to refer to the CDC's *Guidelines for Infection Control in Dental Health-Care Settings* (available for review at <http://www.cdc.gov/oralhealth/Infectioncontrol/guidelines/index.htm>).

Although published in 2003, the information is still relevant today. For example, the document states, "For procedures involving multiple injections with a single needle, the practitioner should recap the needle between injections by using a one-handed technique or use a device with a needle-resheathing mechanism." It also clearly states not to administer medication from one syringe to multiple patients, even if the needle on the syringe is changed, and notes that single-use vials should be used for parenteral medications whenever possible.

Another standard is the CDC's *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings* (available at <http://www.cdc.gov/hicpac/2007ip/2007isolationprecautions.html>), which provides evidence-based recommendations for safe injection practices. In 2012, the CDC noted that since the guidelines were published, it was aware of at least 19 outbreaks associated with single-use/single-dose medications. All of the outbreaks occurred in outpatient settings including dental practices.

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In May 2012, the CDC reiterated its policy regarding use of single-use/single-dose vials, stating they should “be used for only one patient.” These vials typically lack antimicrobial preservatives to prevent bacterial contamination.

Also, in 2012, the Centers for Medicare & Medicaid Services (CMS) noted that the following practices are not correct: using a single-dose vial more than once, preparing multiple doses from one single-dose vial, and preparing a syringe of medication from a single-dose vial and using it more than one hour later.

In summary, providers should use one needle, one syringe, one time, and use single-dose vials. Although some providers may be tempted to reuse vials to avoid waste and increased costs, the CDC specifically states that patient safety must come first.

Ensuring safe practice

Make sure you have a policy on safe injection practices in place. The policy should include the CDC recommendations (see *Injection safety guidelines from the CDC*). Also be sure you have a thorough understanding of the pharmacology of injected anesthetic agents, administration techniques, and the prevention, recognition, and management of complications.

The phrase “safe injection practice” can be extended to include patient care during and after the injection. Consider that the American Dental Association (ADA) policy on anesthesia and sedation states that dentists should be aware of the contraindications to the use of epinephrine-containing local anesthetics (for example, not using bupivacaine with epinephrine in patients on tricyclic antidepressants or cardiac medications) and of maximum safe dosages, especially when they are used in combination with sedative agents. The ADA policy also states that the dental office must be able to handle emergencies by having equipment such as suction, monitors, and emergency medications.

Dental practitioners should document in the patient’s record the history and physical, type and amount of anesthesia administered, patient monitoring, and any adverse events, including how they were managed.

Reminders

Dentists who work in group practices or in states where dental hygienists are allowed to administer local anesthesia may want to consider using tools from the OneandOnly Campaign to ensure that all practitioners understand the principles of safe injection practices. For example, a poster that reminds practitioners to use “one needle, one syringe, one time” is available for download at www.oneandonlycampaign.org/news/safeinjection-practices-dentistry.

Although one might assume a dentist would know this information, a survey of healthcare workers found that 1 percent to 3 percent reused the same needle and/or syringe in multiple patients, and a survey of 5,446 healthcare practitioners found that 15 percent used the same syringe to re-enter multidose vials. The latter survey also found that 6 percent of respondents sometimes or always used singledose/single-use vials for multiple patients. Another good resource is the Injection Safety section of the CDC website, available at www.cdc.gov/injectionsafety.

Injection safety guidelines from the CDC

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Dental practitioners frequently handle parenteral medications, whether administering a local injection or infusion fluids with sedatives for conscious sedation. Following these guidelines ensures patient and practitioner safety and helps reduce the chance of litigation as a result of an untoward event.

- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Never use medications packaged as single-dose vials for more than one patient.
- Never combine the leftover contents of a syringe or single-use vials for later use.
- Never use bags or bottles of I.V. solutions as a common source of supply for more than one patient.
- Always follow proper infection control practices during the preparation and administration of injected medications.

Source: Centers for Disease Control and Prevention. Injection safety. Safe injection practices in dentistry. <http://www.cdc.gov/OralHealth/infectioncontrol/factsheets/safe-injection-practices.htm>

Keeping patients and providers safe

Although the principles of safe injection practice seem basic, reports for problems from the CDC infer that raising awareness and periodic reminders of good practice are essential to protect both patients and providers.

RESOURCES

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