



Dental Professional Liability | Managing Adverse Events

Patient Safety in Dentistry and Medical Emergencies

Please Note

A number of sample risk management forms and letters are available electronically in association with this manual, including written informed consent templates, patient termination letters, records release authorization forms and others. Dentist's Advantage-insured dentists may access these sample documents on the [Dentist's Advantage website](#).

Each PDF sample permits customization: copy and paste the sample text from the PDF template document to a text editing file (MS Word, Apple Pages, etc.); edit text and add your dental practice information where appropriate; save the file to create a blank form for ongoing use. If necessary, customize the text of the form template for specific patient needs. You may wish to include components from various sources if the templates provided do not meet the needs of your practice.

While a number of form templates are available, documents are not available for every dental procedure. We encourage you to create consent forms for those dental procedures you perform frequently. You may wish to use the sample consent forms as an outline and review the manual section on informed consent. Consider consulting your attorney to ensure that your forms comply with state informed consent statutes.

Risk management content and resources are provided for illustrative purposes only. The information is intended to provide only a general overview of the matters discussed and is not intended to establish any standards of care.

Patient Safety in Dentistry

Dentists and other healthcare practitioners have an ethical and legal duty to ensure that both their procedures and their premises are as safe as possible for patients, staff members and visitors. This section focuses on common treatment-related adverse events, but it is important to remember the importance of property risks and overall safety within the dental practice as well.

Research and reports on patient safety issues are becoming more common in the dental literature, but much more work is needed. One paper provides a list of 11 basic procedures and practices for patient safety in the dental office. While the authors are all based outside of the United States, most of their recommendations are consistent with issues covered in this and other sections of the CNA risk management manual. The key points include recommendations to:

1. Develop a culture of safety in the dental office.
2. Focus on the quality of clinical records.
3. Maintain control of procedures and protocols for infection control and instrument sterilization.
4. Exercise extreme caution with the prescribing of medications.
5. Limit exposure to ionizing radiation, by prescribing imaging based upon individual patient need.
6. Never reuse any products intended for single-use with one patient.
7. Protect patients' eyes during dental procedures.
8. Use barriers and other methods to prevent ingestion/ aspiration of instruments, restorations, etc.
9. Use safety checklists for all surgical procedures/.
10. Closely monitor the progression of oral infections.
11. Implement a protocol for medical emergencies in the dental office.

While these 11 points may not be new to any dentist, the frequency with which these topics arise in dental professional liability claims and lawsuits is noteworthy. Therefore, dental practitioners should consider and re-assess even their most basic patient safety practices and procedures.

Medical Emergencies

Medical emergencies in the dental office are relatively rare and most often do not result in significant or permanent injuries. In cases that involve significant or permanent injuries, criticism of the adequacy and timeliness of response on the part of the dentist and dental team may occur.

Dental patients may reasonably expect that dental office personnel receive at least a minimal level of healthcare training and are able to respond to medical emergencies. Consequently, all dental offices should have medical emergency response plans documented in the office policy and procedure manual, as well as regular training and practice sessions to reinforce the roles and responsibilities within the response plan. Failure to create an emergency plan or to adequately train personnel may result in confusion, treatment delays and, patient harm.

Numerous resources, including textbooks, manuals, and CE courses, address the management of medical emergencies in detail. In the interest of quality patient care and sound risk management, we encourage dentists to consult these sources and maintain a reasonable understanding and expertise in the subject.

Managing the Risks of Medical Emergencies

Recognizing risk factors

The key to preparedness begins with knowing those patients at greatest risk and the medical emergencies most likely to occur within your patient population. Patient populations at risk include:

- Older patients
- Patients taking numerous prescription medications
- Patients with significant medical histories (for example, cardiac disease, hypertension, or diabetes)
- Patients under increased stress due to fear, pain, or anxiety
- Patients and procedures requiring longer appointments

The most frequent adverse event reported to CNA is one that may result in a medical emergency: the swallowing or aspiration of a foreign object by the patient. This specific problem is addressed later in this chapter. Among other medical emergencies, those most common in dental practice include syncope, allergic reactions, angina pectoris, sudden cardiac arrest, respiratory distress (often caused by allergic reaction or asthma), and hypoglycemia.

Controlling the risks

The most important component of a medical emergency is its prevention. Prevention can best be achieved by the dentist's thorough physical assessment of the patient. Your assessment should combine the review of a complete, written medical history obtained from the patient, with findings from your clinical examination and evaluation. Allocate time to discuss the medical history with the patient, as well as to investigate further any responses that may be a cause for concern. For example, query diabetic patients about their drug and eating regimens and schedule them early in the day. Hypertensive patients should have their blood pressure recorded at each visit.

Pre-event planning

After the potential emergency conditions for your practice have been identified, the next step is to determine an appropriate office procedure or protocol for each circumstance. Emergency policies and procedures should be based on a realistic assessment of the practice capabilities. These protocols should be tailored to the type of dental office, the clinical procedures performed, and the skill level of the office personnel. Access to the emergency medical system (EMS) in your area also represents an important consideration in the development of emergency procedures.

A small general dental office with a responsive EMS may decide to handle all medical emergencies by calling 911 and providing basic emergency measures. However, an oral surgeon may be reasonably expected to be conversant with more advanced resuscitation techniques than a general dentist. Similarly, dentists who provide sedation and/or general anesthesia services will be held to a higher level of knowledge and skill. These dentists are expected to manage medical emergencies due to the additional training they are required to undergo by many state dental boards. In addition, the staff members of different types of practices may have more or less training in medical emergency procedures and access to different types of emergency equipment, depending upon the practice activities and/or state requirements.

The next step is to train personnel to respond and to *practice* this training on a regular basis. All personnel should know the importance of contacting 911 to activate an EMS response. In addition, the personnel who will respond in a given manner to specific events should be identified. The designated job responsibilities and specific responses also should be documented in the office policy and procedure manual. No matter how simple your response plan, regularly scheduled emergency drills can help staff members develop the habits and reflexes needed to act quickly and smoothly. Contact local EMS personnel as they may be able to assist with conducting mock emergency drills.

Regularly review your system of reacting to medical emergencies in the dental office. The following is a summary of steps for emergency preparedness. The dentist directs and supervises the sequence of actions, but staff members are empowered to take action, according to pre-assigned duties:

1. When an emergency occurs:
 - Notify the receptionist of the emergency. The receptionist calls 911 and activates the EMS.
 - The dental assistant helps to position the patient properly, then brings the emergency kit (if applicable), the portable oxygen, if needed, and assists as directed by the dentist.
 - Monitor vital signs, secure the airway, and begin CPR, if needed.
 - The receptionist notifies the patient's physician. The receptionist also informs a family member that an emergency has occurred and reassures the family that you and your staff are responding to the event.
2. Verify that all staff members have current basic life support (BLS) certification. BLS certification should be renewed in accordance with dental licensing board requirements and current American Heart Association guidelines.
3. Utilize periodic emergency drills to test preparedness, at least on a quarterly basis.
4. Place emergency phone numbers for EMS, police, and local physicians prominently by each telephone.
5. Check oxygen tanks and the oxygen delivery system regularly to ensure that they are in good working order.
6. Check all emergency medications monthly to assure replacement of outdated medications. Designate a staff member to ensure completion and documentation.
7. Be familiar with emergency kit medications as packaging and administration techniques may vary significantly from those with which dentists and office staff are familiar.

In order to ensure the orderly and efficient response to a medical emergency, you and your staff should spend several sessions studying and practicing these procedures so that medical emergencies can be handled calmly and capably.

Equipment and drugs

Emergency equipment should be appropriate for the patient population and nature of your practice, and correspond to descriptions in the policy and procedure manual.

While emergency kits, or “crash carts,” are available from a variety of vendors, it may be optimal to create your own kit, tailored to your practice and your abilities. The process of developing your own kit creates a familiarity with both the equipment and the drugs you select for inclusion. If your crash cart contains medications that are not used during an emergency due to your inexperience with them, an allegation may be asserted that you failed to properly manage your patient’s emergency care.

Therefore, it is prudent to maintain only those other drugs and instruments which you are comfortable using. Commercial emergency kits often contain equipment and drugs with which most dentists are either unfamiliar or have reservations about using. For example, if you do not plan to start intravenous medication drips in response to a medical emergency, then do not purchase an elaborate kit that includes IV equipment and drugs.

Sources vary somewhat in the equipment, drugs, and supplies recommended for availability during medical emergencies. The following is a sampling of commonly cited items:

- Oxygen tank and the ability to deliver positive pressure oxygen as well as supportive oxygen
 - Positive pressure systems include the bag, valve, and mask device
 - Availability of latex-free equipment for latex-allergic patients
- Blood pressure cuffs of various sizes (automatic or manual)
- Epinephrine (and syringes) and antihistamines for allergic reaction
- Reversal agents for sedatives
- Sugar source for hypoglycemia
- Aspirin for myocardial infarction
- Ammonia inhalant
- Bronchodilator inhaler for asthma attacks
- Nitroglycerin for angina pectoris

You may add additional items based upon your level of competence with the item(s), state laws or regulations, the nature of your practice, and your patients’ anticipated emergency needs.

Ensure that all staff members are trained in the use of emergency equipment and schedule routine refresher sessions to maintain a high state of readiness. Also consider cross-training needs, since not all staff members may be working at the time an emergency occurs.

Equipment must be stored in a readily accessible location, and personnel should be assigned to check and maintain the equipment on a routine basis. Medications, for example, must be checked regularly to identify and replace expired emergency drugs. Other types of equipment may need routine calibration. Instruct staff members who examine the emergency kit to initial and date their maintenance checks.

Automatic external defibrillator (AED)

The only treatment for sudden cardiac arrest (SCA), a leading cause of death in the United States, is the rapid delivery of a specific electrical shock within a critical time period. We are often asked if dentists are required to have an AED on hand to meet the standard of care for medical emergency management.

Some state dental licensing boards have instituted a requirement for an AED in the dental office. The requirements vary by state and can also vary by specialty and the types of procedures performed. For example, a state may require all dentists using sedation of any kind to have an AED. Conversely, it may only require certain specialties, such as oral and maxillofacial surgeons, to maintain an AED on the premises.

The first state dental practice act amended to require every dental office to have an AED states, “Any dentist practicing after [the implementation date] without an automatic external defibrillator on site shall be considered to be practicing below the minimum standard of care.” In this state, as well as any other state that has instituted the same or similar requirement, all dentists affected by the ruling should comply with the dental practice act and purchase an AED. Dentists practicing in other states that have not adopted similar requirements would be permitted to opt against the purchase of an AED.

If not required to do so, should you purchase an AED? This determination becomes a personal decision for each dentist. When assessing the needs of your patients, some factors to consider are:

- The nature of your practice
 - How often do you treat patients at risk of sudden cardiac arrest?
 - How often do you treat patients who are medically compromised or have significant medical histories?
 - How often do you perform surgical procedures, including extractions?
- How often do you sedate patients?
- How long does it take EMS to respond to your practice location?
- Your perception of risk (both of having an AED *and* not having it)
- Your moral and ethical views regarding the need for an AED

Another consideration: dentists may wish to have an AED available for oneself and all office staff, depending upon their age, pertinent medical/family histories and other risk factors.

Notably, understand that sudden cardiac arrest may occur in individuals with no significant/related medical history. And if you choose to purchase an AED, *all employees* must be trained in its proper use, including non-clinical personnel. According to the manufacturer, the “defibrillator is intended to be easy to use for minimally trained responders.” The American Dental Association (ADA) has suggested that “the user should have received training at a recognized course in CPR and AED use, such as those offered by the American Heart Association or the American Red Cross, or be certified in basic life support, advanced life support or other physician-authorized emergency medical response.”

Most consumers expect that healthcare personnel are, at least, “minimally trained” to manage medical emergencies. If an average layperson can use an AED properly, you and your staff should be able to do so as well. See the bibliography for a link to further resources for dental office medical emergencies on ADA.org.

For more information call Dentist's Advantage
at 888-778-3981, or navigate to the
Dentist's Advantage website Risk Management section.



In addition to this publication, CNA and Dentist's Advantage have produced additional risk control resources on topics relevant to dental professionals, including: newsletters; articles; forms; letters; and claim scenarios.

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