

Office emergencies and emergency kits

ADA COUNCIL ON SCIENTIFIC AFFAIRS

Though rare, life-threatening medical emergencies can and do occur in the dental environment. As health care providers, dentists must be prepared to recognize and properly manage patients who are experiencing medical emergencies in the dental office.

EMERGENCY MANAGEMENT

First and foremost in emergency management is the ability to effectively provide basic life support, or BLS, when appropriate. The Council on Scientific Affairs recommends that all dental health care professionals receive regular training in BLS for health care providers, because these skills are

maintained only through repetition. For certain individuals, additional training in advanced cardiac life support, pediatric advanced life support, or both may be warranted.

The ADA Council on Scientific Affairs recommends that all dental health care professionals receive regular training in basic life support for health providers.

Didactic and hands-on training in the prevention, recognition and management of common emergencies also is recommended. Examples of common emergencies include seizures, cardiovascular and respiratory distress, altered consciousness, chest pain and drug-related emergencies. Courses in emergency medicine management are included in the curricula of all accredited dental schools, and are offered by institutions providing

specialty training in dentistry and hospitals with general practice residencies. For the practicing dentist, the Council recommends that emergency medicine programs be offered as continuing dental education through such venues as dental schools, dental societies and other training institutions (for

example, local hospitals, the American Heart Association).

In addition, all dental offices should maintain at least the basic recommended emergency equipment and drugs. The content and design of these kits should be based upon each practitioner's training and individual requirements. Proprietary emergency drug kits are available, but none of these kits is compatible with the needs of all practitioners. The Council on Scientific Affairs does not recommend any specific proprietary emergency drug kit; it does recommend that dentists, after considering their specific training and special needs, design their own individualized emergency kits if proprietary kits do not meet their needs.

The American Dental Association's "Guidelines for the Use of Conscious Sedation, Deep Sedation and General Anesthesia for Dentists"¹ clearly defines the training, emergency drugs and equipment necessary to safely manage emergencies related to those modalities in the dental office. Dental specialty organizations have similar recommendations, and many state Boards of Dental Examiners also have lists of emergency drugs and equipment that are required for dentists to obtain. They also require that dentists obtain and maintain permits to administer general anesthesia, par-enteral conscious sedation and pediatric oral conscious sedation. All dentists using these techniques are strongly urged to consult their own state's requirements for specific emergency drugs and equipment. Recently, several insurance carriers mandated lists of emergency drugs and equipment that insured practitioners must have available in their offices.

Dentists who provide sedation services in their dental office may find several ADA documents helpful.¹⁻³ Additional information is available in the ADA Guide to Dental Therapeutics.^{4,5}

In designing an emergency drug kit, the Council suggests that the following drugs be included as a minimum: epinephrine 1:1,000 (injectable), histamine-blocker (injectable), oxygen with positive-pressure administration capability, nitroglycerin (sublingual tablet or aerosol spray), bronchodilator (asthma inhaler), sugar and aspirin. Other drugs may be included as the doctor's training and needs mandate. It is particularly important that the dentist be knowledgeable about the indications, contraindications, dosages and methods of delivery for all items included in the emergency kit. Dentists are also urged to perform continual emergency kit maintenance by replacing soon-to-be-outdated drugs before their expiration.

For offices in which emergency medical services, or EMS, personnel with defibrillation skills and equipment are not available within a reasonable time frame, the dentist may wish to consider an automated external defibrillator, or AED, consistent with AED training acquired in the BLS section of health care provider courses.

Another important consideration with all medical emergencies is a well-defined protocol for activating the EMS system. Emergency drills should include this important protocol.

SUMMARY

Preparedness to recognize and appropriately manage medical emergencies in the dental environment includes the following:

- current BLS certification for all office staff;
- didactic and clinical courses in emergency medicine;
- periodic office emergency drills;
- telephone numbers of EMS or other appropriately trained health care providers;
- emergency drug kit and equipment, and the knowledge to properly use all items.

This update on office emergencies and emergency kits replaces the previous Association report, prepared in 1980 by the Council on Dental Therapeutics.⁶ ■

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3. American Dental Association. Guidelines for teaching the comprehensive control of anxiety and pain in dentistry. Chicago: American Dental Association; 2000. Available at: "www.ada.org/prof/ed/guidelines/index.html". Accessed Jan. 29, 2002.

4. Malamed SF. Drugs for medical emergencies in the dental office. In: Ciancio SG, ed. ADA guide to dental therapeutics. 2nd ed. Chicago: American Dental Association; 2000:257-92.

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6. ADA Council on Dental Therapeutics. Office emergencies and emergency kits. JADA 1980;101:305.