Dental office emergency drugs

Part 2: Understand critical office resuscitative emergency (CORE) drugs before you need them

By John Roberson, DMD

Editorial Note: Part 1 of this two-part article was published in the July 2012, Vol. 7, No. 7, Dental Tribune U.S., which is available online at www.Dental-Tribune.com.

Key points from Part 1

Every dentist should realize that medical emergencies can, and will happen during the course of practice. These emergencies could be related to dental treatment, patient risk factors, or they could occur unexpectedly. A medical emergency could evolve into a life-threatening emergency without proper treatment. It is for these reasons emergency medications should be present in dental offices.

Part 2 looks in detail at the CORE (Critical Office Resuscitative Emergency) eight emergency drugs needed for dental offices and suggested emergency medications for practices doing advanced anesthesia.

The CORE 8

**Albuterol**

Definition: Bronchodilator — stimulates beta-2 adrenergic receptors causing bronchodilation.

Use: Almost any type of medical emergency except respiratory arrest. Caution: No contraindications to giving albuterol in acute episodes of bronchospasm.

Suggested stock: One albuterol MDI inhaler.

**Ammonia inhalants**

Definition: A respiratory stimulant.


Suggested stock: One bottle of 25 tablets.

**Aspirin**

Definition: Anti-platelet — inhibits prostaglandin synthesis and inhibits platelet aggregation irreversibly.

Use: Suspected myocardial infarction. Caution: Patients with low blood pressure.

Suggested stock: Two 81 mg chewable tablets.

**Diphenhydramine**

Definition: Antihistamine — antagonizes histamine at the H₁ receptor, causes sedation and has an anti-cholinergic effect.

Use: Allergic reaction/anaphylaxis. Dose: 50 mg IM or IV. Caution: No contraindications to giving diphenhydramine during an allergic reaction unless noted allergy or hypersensitivity to diphenhydramine.

Suggested stock: One 50 mg/mL as a solution for oral fluids in the event of a hypoglycemic reaction.

**Epinephrine**

Suggested stock: One albuterol MDI inhaler.

**Oxygen**

Definition: Anti-sialagogue effect.


Suggested stock: One portable “E” cylinder.

**Glucose**

Definition: Anti-hypoglycemic — increases glucose level for treatment of hypoglycemia.


Suggested stock: One bottle of 25 tubes of glucose gel.

**Hydramine**

Definition: Injectable anti-convulsant.

Use: Almost any type of medical emergency. Caution: Do not use with hyperventilation.

Suggested stock: One 50 percent dextrose.

Additional emergency drugs for consideration

These additional emergency drugs are suggested for practices that do any type of advanced anesthesia, such as PO sedation, IV sedation, or general anesthesia. Practitioners may have their own choices of emergency drugs due to their type of practice as well as training background.

- **Reversal agent — benzodiazepine**
  - Flumazenil (Romazicon) — benzodiazepine antagonist. Reverses the effect of benzodiazepines by competitively inhibiting the GABA receptors.

- **Reversal agent — narcotics**
  - Naloxone (Narcan) — narcotic antagonist. Reverses the effect of narcotics by competitively inhibiting narcotic receptor sites.

- **Injectable anti-cholinergic**

  - Midazolam or diazepam — a benzodiazepine that acts on the inhibitory neurotransmitter gamma amino butyric acid (GABA), limbic system, hypothalamus and thalamus to produce sedation, anti-anxiety effect and skeletal muscle relaxation.

- **Injectable anti-hypoglycemics**

  - Dextrose (50 percent dextrose) — anti-hypoglycemic: a source of calories and fluid for patients that are not able to take oral fluids in the event of a hypoglycemic reaction.

John B. Roberson, DMD, is a full-time practicing oral and maxillofacial surgeon. He is board certified by the American Board of Oral & Maxillofacial Surgery and the National Dental Board of Anesthesiology. He is a co-founder and former CEO of the Institute of Medical Emergency Preparedness (IEMP), and he co-developed the curriculum for Advanced Life Support for Dentistry (ALSD), which covers medical emergencies, airway emergencies, emergency drug kits and medical emergency planning. He co-developed the Emergency Response System (ERS), a comprehensive medical emergency program for the dental profession. Roberson performed his residency in oral and maxillofacial surgery at University Hospital at the University of Cincinnati. He is a founding member of the American Association of Oral & Maxillofacial Surgeons Residents Organization (ROAAOMS) and served as chairman. Roberson lectures extensively on emergency drugs and medical emergencies. Interested organizations can contact him at (801) 265-2611 or info@johnroberson.com.

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(Source: Greater New York Dental Meeting)