

DENTISTS' MANUAL OF EMERGENCY MEDICAL TREATMENT

Robert J. Braun, B.A., D.D.S.

Assistant Professor, Clinical Oral Pathology

Head, Division of Oral Diagnosis

Director, Emergency Medical Care

Marquette University School of Dentistry



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Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, as it ought to be done, whether you like to do it or not.

Thomas Huxley

PREFACE

In keeping with the ideals of this manual, this division will be brief. However, I feel a few acknowledgements are necessary.

It is not the intent of the author to provide an in-depth text covering all aspects of medical-emergency care. This text should be used as a reference to organize knowledge gained from reading more comprehensive texts. Neither does it attempt to instruct the reader in all of the mechanical skills required to treat compromised patients.

All treatment procedures outlined are supported in current literature. Drug dosages are calculated for the adult patient. Package inserts should be read prior to use. In addition, one must keep abreast of revisions.

This project started out as a revision of seminar and lecture topics. Dr. Harold Gerstein must be credited with the great favor of encouraging me to prepare a text. A project of this type takes one's constant attention. I thank Dr. Ben Karr for his forbearance and support. Manuscript review was a task which involved many people however, Dr. William Conner did the lion's share. His critique was invaluable. Jan Thompson deserves an award for bearing with me in providing the illustrations. Obviously the above list does not begin to adequately thank and acknowledge all who have helped me in this effort.

Lastly, I must acknowledge the support of my wife for making me believe the impossible was possible. If not for her this book would not be.

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**DENTISTS' MANUAL OF
EMERGENCY MEDICAL
TREATMENT**

MAJOR SYMPTOMS REFERENCE GUIDE

Respiratory Difficulty
Cyanosis

Hyperventilation
(p. 42)

Obstruction
(p. 28)

Heart Failure
(p. 24)

Asthma
(p. 22)

Altered Behavioral Response

Syncope
(p. 58)

Cerebrovascular
Accident (Stroke)
(p. 36)

Insulin Shock
Diabetic Coma
(p. 38)

Epilepsy
(p. 40)

Thyroid Storm
(p. 60)

Chest Pain

Acute Myocardial
Infarction
(p. 26)

Angina Pectoris
(p. 32)

Hyperventilation
(p. 42)

Decreased Pulse Rate

Cardiac Arrest
Pulse Absent
(p. 34)


Anaphylaxis
(p. 30)

Cerebrovascular
Accident (Stroke)
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Diabetic Coma
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Shock
(p. 56)

Rapid Pulse Rate

- 
- Acute Myocardial Infarction (p. 26)
 - Paroxysmal Tachycardia (p. 54)
 - Insulin Shock (p. 44)
 - Syncope (p. 58)
 - Local Anesthetic Reaction (p. 48)
 - Thyroid Storm (p. 60)

PROCEDURES USED IN ALL EMERGENCY SITUATIONS

Patient should be lying down in a supine position, head lower than feet if possible.

If in dental chair, *DO NOT* move to floor.

If patient is conscious, he may be more comfortable in a sitting position.

Support and reassure the patient.

Administer oxygen.

Maintain open airway (see Fig. 1).

Check pulse.

Check skin color, perspiration, temperature.

Evaluate situation; arrive at diagnosis.

Be prepared to: support respiration, support circulation, call for assistance.

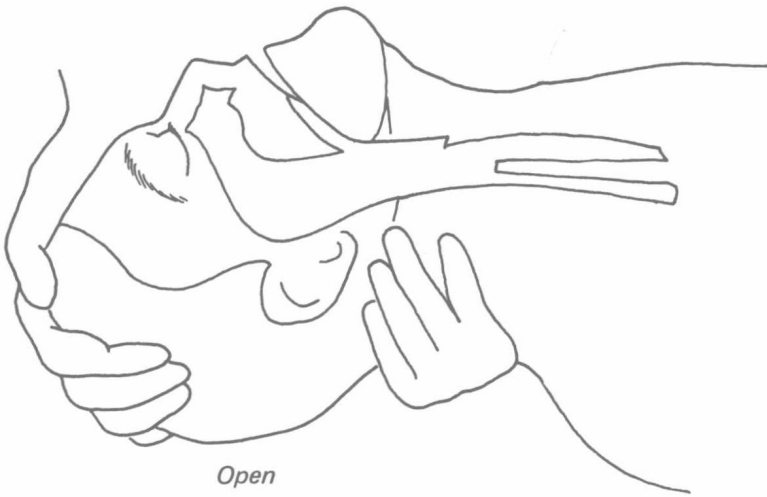
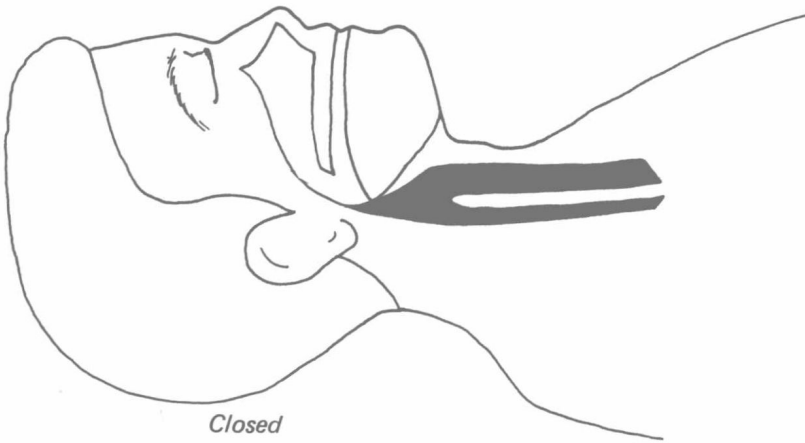


FIGURE 1.

SUGGESTED COMPONENTS OF AN OFFICE EMERGENCY KIT

EQUIPMENT

Necessary:

- Portable O₂ tank-E size
- Clear, full face mask
- Means of positive pressure ventilation
 - bag mask (Ambu, Laerdal)
 - or automatic valve (Elder)
- Airways
 - oropharyngeal
 - nasopharyngeal
- Means of aspiration
 - large bore tip
- Stethoscope
- Sphygmomanometer

Desirable:

- Large T & A suction tip
- Pliable suction catheters
- Alcohol swabs
- Sterile disposable needles, 20 gauge
- Sterile disposable syringes, 5 & 10 cc
- Cricothyrotomy needle or 13 gauge short straight needle
- I.V. fluid administration set
- Butterfly I.V. infusion set, 20 or 21 gauge
- Tourniquet
- Tape
- Pen light

DRUGS

Necessary:

- Oxygen
- Aromatic ammonia inhalant
- Epinephrine 1:1000 and 1:10,000
- Nitroglycerine tablets 1/250 gr
- Amyl-nitrite inhalant
- Sugar

Desirable:

- Diazepam (Valium)—prepackaged syringe
- Diphenhydramine (Benadryl)
- I.V. solution (D₅W or Ringer's Lactate)
- Coricosteroid (Solu-Cortef)
- Dextrose—50%, 50 ml
- Isoproterenol—inhaler & multidose vial
- Calcium Gluconate
- Pressor amine (Wyamine, Neo-Synephrine, Aramine)
- Morphine Sulfate or Demerol

| Drug | Generic Name | Mode of Admin. | Action |
|---------------------------|------------------------------------|---|---|
| Aromatic inhalant | Ammonia | inhalant | Mechanical/chemical irritant |
| Epinephrine ⁺ | Epinephrine | 1:1000 IM or SC 1:10,000 IM or I.V. | Cardiac stimulant, Bronchodilator, Alpha receptor. |
| Nitroglycerine | Nitroglycerine | sublingual tablets | Relaxes smooth muscle, Dilates coronary arteries. |
| Amyl-nitrite | Amyl-nitrite | inhalant | Smooth muscle relaxant, Coronary vasodilator. |
| Valium ⁺ | Diazepam | 5-10 mg IM | Calming effect, Relieves anxiety, Anticonvulsant. |
| Benadryl ⁺ | Diphenhydramine | 50 mg IM or I.V. | Antihistamine, Anticholinergic. |
| Solu-Cortef | Hydrocortisone Sodium Succinate | 100 mg IM or I.V. Mix-O-Vial | Anti-inflammatory. |
| Dextrose ⁺ | Dextrose | 50 ML of 5% I.V. | Elevates blood sugar to reverse insulin shock. |
| Isoproterenol | Isoproterenol Hydrochloride | 1-3 ml of diluted 1:50,000 solution and inhaler | Primary action is on heart and smooth muscle of bronchioles. Increases cardiac output, Increases venous return, Lowers peripheral resistance. |
| Calcium Gluconate | Calcium Gluconate | 10 cc I.V. | Improves force of myo- cardial contraction. |
| Mephenteramine Sulfate | Wyamine | 10-30 mg IM or I.V. | Pressor agent, Stimulates alpha receptors, Cardiac stimulant, Increases cardiac output. |
| Metaraminol Bitartrate | Aramine | 2-10 mg IM 15-100 mg I.V. | Increases systolic and diastolic B.P. Positive inotropic effect. |
| Phenylephrine HC1 | Neo-Synephrine | 2-5 mg IM | Vasoconstrictor, Slows heart rate, Increases stroke volume. |
| Morphine Sulfate | Morphine Sulfate | 10-15 mg IM or I.V. | Analgesia and sedation. |
| Demerol | Meperidine Hydrochloride | 50-150 mg I.V. | Analgesia and sedation. |

⁺ Available in prepackaged single dose syringes.

*All medications currently have an expiration date printed on the package. It is best to review one's drug kit at specific times and replace those drugs which have expired.

