

Emergency Medical Response in the Optometry Practice

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Description: This presentation provides the participant with an overview of Red Cross certified techniques for handling significant mechanism trauma, shock, respiratory distress, anaphylactic allergy, myocardial infarction, syncope, seizures, diabetic emergencies and choking. Included in the talk are the history of the emergency medical system (EMS), the concepts of scene safety, the duty to act, implied consent, patient advocacy, empowered minor status, pluralistic ignorance and an overview of the good Samaritan law,

Objectives:

1. Following attendance the participant should be able to identify scene hazards.
2. Following attendance the participant should be able to properly prepare for attending to a patient by obtaining consent and donning personal protective equipment.
3. Following attendance the participant should be able to identify the signs of shock.
4. Following attendance the participant should be able to properly employ the Heimlich maneuver.
5. Following attendance the participant should be able to identify the vital signs.
6. Following attendance the participant should be able to initiate life sustaining first aid for victims of respiratory distress, diabetic emergency, stroke, syncopal episode, seizure and allergic emergency.
7. Following attendance the participant should be familiar with cardiopulmonary resuscitation (CPR).

Outline:

- A. Shock and the eight common scenarios.
 1. Fainting.
 2. Diabetic emergencies.
 3. Anaphylaxis.
 4. Asthma.
 5. Choking.
 6. Seizures and CVA.
 7. MI.
 8. Trauma / Bleeding / Fractures.
- B. History of EMS.
 1. The modern EMS takes its roots from the French military (circa late 1700s).
 2. In the U.S. the idea was refined in the 1960s to include at – the – scene management.
 3. The National Highway Safety Act – Charged the D.O.T. with developing standards for prehospital care. (enhanced 911).
- C. Related information.
 1. The Good Samaritan Law (Kitty Genovese 1964).
 2. Negligence.
 3. The duty to act.
 4. Expressed consent / Implied consent.
 5. Assault and kidnapping.
 6. Minors and Emancipated minors.

7. The “do not resuscitate” (DNR) order.
 8. Advocate status / abandonment / transfer of care.
- D. Gloves on, scene safe ! Preparing to enter a scene.
1. An unprepared doctor is a well informed bystander.
 2. Personal protective equipment (PPE).
 3. Pocket mask / bag valve mask (BVM).
 4. Exposures to blood borne pathogens (BBP-HIV, HEP, TB, meningitis - others)
 5. Scene size up : Do not switch sides.
 6. Recognize / search for hazards !
 7. Load and go or stay and play.
 8. Scene etiquette.
 9. It’s a crime scene !
 10. The Golden Hour
- E. Some basic equipment
1. BP cuff.
 2. Stethoscope.
 3. Pen light.
 4. CID collar.
 5. Splint.
 6. Blood stopper.
 7. Backboard.
 8. Airway.
 9. Oxygen / masks.
 10. Pocket mask / bag valve mask.
 11. Automatic external defibrillator (AED).
- F. The Chain of survival/ABC H approach and CPR review
1. Conscious airway obstruction.
 2. Unconscious airway obstruction.
 3. Rescue breathing.
 4. CPR and AED.
 5. Rapid assessment.
 6. Detailed assessment.
 7. The difference between adults and children.
 8. Positive pressure ventilation.
- G. Shock
1. Nonperfusion.
 - a. Hypovolemic.
 - b. Cardiogenic.
 - c. Neurogenic.
 2. Blood tissue.
 - a. Adult : 6 quarts - Child : 3 quarts - Infant : 3 pints.
 3. Hemorrhage control.
 4. Compensated, decompensated, irreversible.
 5. Oxygen control.
 - a. High flow.
 6. Full Fowler’s / Trendelenberg / recovery.

H. Fainting (Syncopal episode).

1. Psychologic, neurologic, metabolic, cardiogenic.
2. BP < 25 mmHg.
3. ABC H, R / O diabetic emergency.
4. Recovery position, clothing, dignity.
5. EMS.

I. Diabetic emergencies.

1. If conscious assist in giving glucose !
2. Do not put anything into the mouth of an unconscious !
3. ABC H.
4. EMS.

J. Anaphylaxis.

1. Type I allergic response.
2. Assist Epipen^R administration.
3. ABC H, Full Fowlers.
4. EMS.

K. Asthma.

1. Reverse the brochospasm.
2. Instruct / assist inhaler use.
3. High flow oxygen.
4. ABC H, Full Fowler's.
5. EMS.
6. Choking.

L. Conscious airway obstruction.

1. Heimlich (prepare for unconsciousness)
2. Unconscious airway obstruction.
3. Unconscious : ABC H, Full Fowlers.
4. EMS.

M. Seizures.

1. Mixing medications or avoiding them (epileptic).
2. Tonic, clonic, tonic – clonic (Grand & petite).
3. Simple or complex.
4. Recovery position.
5. Move objects, preserve dignity.
6. Nothing in mouth !
7. ABC H.
8. EMS.

N. CVA.

1. Ischemic vs. hemorrhagic (worse).
- 2, Changes in mentation.
3. Changes in balance or coordination (ocular)–masqueraders.
4. Inability to speak correctly.
5. The Cincinnati Prehospital Stroke Scale (Face, Arm, Speech).

O. Myocardial infarction.

1. Chain of survival : Four keys : Detection/Recognition, medication, oxygenation and defibrillation.
 - a. 20 % die on the way, 30 % die within 30 days.

- b. Delays in EMS significantly increase risk (10%/10 min. without AED).
- 2. No nitro for those on Viagra.
- P. Complex traumatic emergencies.
 - 1. The Golden Hour.
 - 2. Significant mechanism of injury (SMI).
 - a. The head / board and collar.
 - b. Rapid assessment (Battle's sign, tracheal deviation, JVD, hemorrhage, hip injury, long bone break) – ABC H.
 - c. Focused assessment (Knee, ankle, shoulder, loss of consciousness).