Policy and Procedure

Recognition and Management of Medical Emergencies

Purpose: To establish standard protocol regarding the management of medical emergency situations within the Dental Clinic. It also provides pertinent information concerning initiation of a "Code Blue."

Policy:

1. All personnel working in the dental clinic will be trained in the recognition of medical emergencies, as well as the location of the emergency kit and oxygen.

2. The attending dentists will ensure that proper measures are promptly instituted for the care of patients undergoing unusual systemic reactions while in the dental clinic.
3. The integrity of the emergency kit will be assessed weekly by the staff dentist. The CHC Pharmacy inspects the emergency kit monthly to assure currency of medication. Any individual using the kit will insure items used are replaced immediately.
4. The senior dental assistant will measure and record weekly the amount of oxygen in the portable tank. Oxygen supplies (mask, tubing, etc.) should be checked as well.
5. The staff dentist will arrange periodic "Code Blue" exercises and conduct annual protocol briefings.
6. "Code Blue" support will be provided by calling 911.

MANAGEMENT OF MEDICAL EMERGENCIES FOR DENTAL PATIENTS

If a patient experiences a medical emergency at the dental office, the first step is to recognize the sign or symptom. Before providers began any dental procedures, they must review the patient's medical history. This key component of treatment can aid in the recognition of a medical emergency. The basic algorithm for the management of all medical emergencies is as follows:

P = Position

A = Airway

B = Breathing

C = Circulation

D = Definitive treatment, differential diagnosis, drugs, defibrillation.

RESPIRATORY DISTRESS

The most commons type of respiratory distress in dental patients is asthma.

Causes:

Inflammation of the lower respiratory tract and contraction of the bronchial smooth muscle. Signs and Symptoms: Wheezing when exhaling, coughing, shortness of breath

Treatment Precautions:

• Make sure patient has their medication, including any prescribed inhaler, with them at time of appointment

• For controlled asthmatics, Local Anesthetic with EPI should be used with discretion; this is because the sulphite uses a preservative that may bring about an allergic attack.

• Agree on a signal for distress with the patient before beginning treatment

Treatment

• Avoid Aspirin or NSAIDS Treatment

• Have patient signal you that they need their medication

• Have patient administer their own medication (bronchodilators)

• Administer Oxygen if deemed necessary

• If the patient loses consciousness or is uncooperative with administration of albuterol, oxygen or if the patient is not responding to the inhaler, call 911 and administer epinephrine.

CHEST PAINS

Many factors may precipitate chest pain, Acute Myocardial Infarction (AMI), angina, paroxysmal supraventricular tachycardia or anxiety.

The two most common in dental patients are AMI and angina pectoris.

Signs and Symptoms:

• Shortness of breath

• Fainting

• Nausea or vomiting

• Sweating

• Anxiety

Treatment Precautions:

• Check patient's dental and medical history

• Ask patient about daily medicine intake prior to dental procedure (daily medications/dental prophylactic antibiotics).

A conscious patient experiencing chest pain will able to position themselves in any position that is comfortable (upright). Conscious patients who can talk have a patent airway; they are breathing and have sufficient cerebral blood flow and blood pressure to retain consciousness.

Treatment:

• Check Patient's medical history

.• Oxygen

• EMS

ANAPHYLACTIC SHOCK/ ALLERGIES

The most common allergen in the dental environment is latex, antibiotics and anthesthia. An allergy can be severe or mild.

Causes:

• A severe allergic reaction

Signs and Symptoms (Mild: non-life threatening):

• Itching

• Hives

• Rash

• Swelling of lips or eyelids, eyelids may itch and tear

• Combination of all Signs and Symptoms (Severe: life threatening)

• Respiratory distress, wheezing

• Airway obstruction

• Rapid, weak pulse

• Palpitations

• Difficulty swallowing

• Nausea and vomiting

• Loss of consciousness

Treatment Precautions:

• Always perform a complete medical history to reduce the likelihood of an allergen exposure

• If patient usually carries an Epi-Pen make sure they have it with them at time of appointment

Treatment:

• Call EMS immediately

• Administer epinephrine

• If patient is conscious give dose of Benadryl

• If pulse present, elevate legs, give oxygen

• If no pulse or breathing, begin CPR

• If patient vomits, suction

• Continue CPR or monitor vital signs until EMS arrives

EPILEPTIC SEIZURES

Causes:

• Seizures are caused by a temporary abnormal electrical activity in a group of brain cells

Signs and Symptoms:

• Patient may have a previous history of seizures

• Patient may recognize they are coming by a preceding “aura”

• Altered consciousness levels

• Muscle rigidity

• Convulsions

• Apnea (temporary absence or cessations of breathing)

• Cyanosis (a bluish/purplish discoloration due to deficient oxygenation of the blood)

Treatment Precautions:

• If patient usually recognizes when seizures are about to happen discuss a signal they can give about an impending seizure

• Make sure patient has taken their medication that day

• Ask patient date of most recent known seizure

• Have oxygen ready

• Be prepared to remove clamp, rubber dam etc.

Treatment:

• The dentist or team member will remove all dental instruments and supplies from the patient's mouth and protect the patient from harm.

• Place patient on his side on the floor away from objects until seizure subsides • If patient vomits, suction

• If seizure lasts longer that 5 minutes, call EMS

• Administer Oxygen if deemed necessary

SYNCOPE Syncope (altered consciousness) is the most common type of emergency in the dental clinic. It is the temporary loss of consciousness with the inability to maintain postural control (fainting, dizziness).

Causes:

• Fear, pain or stress

• Fatigue

• Overly warm environment

• Decreased blood flow to the brain, vasovagal event

Signs and Symptoms:

• Restlessness

• Pallor • Feeling "too warm"

• Cold sweats, clammy skin

• Nausea, generally feeling unwell

• Breathing may be irregular

• Slow feeble pulse

• Convulsive movements, twitching

• Loss of consciousness

Treatment:

• Lay patient in a horizontal "head below feet" position

• Loosen tight clothing

• Place cold towel on forehead

- Monitor ABC's (Airway, Breathing, Circulation)
- Give Oxygen
- Consider oral glucose in diabetic patients who are conscious and able to swallow

Emergencies cannot be totally prevented but can be managed appropriately with thorough knowledge of the signs, symptoms, and accurate treatment of the emergencies.