

MEDICAL EMERGENCY PREPARATION, EQUIPMENT, AND DRUG KIT STANDARD



Status:	Approved
Original:	January 2022
Amended:	
Updated:	March 2026
To be Reviewed:	March 2031

TABLE OF CONTENTS

MEDICAL EMERGENCIES	2
EMERGENCY DRUG KIT AND EMERGENCY EQUIPMENT	2
MEDICAL EMERGENCY PREPARATION	3
MEDICAL EMERGENCY PROTOCOLS, ROLES AND EQUIPMENT	3
MEDICAL EMERGENCY RESPONSE	4
LEGEND	4
POSITION (P)	5
VITAL SIGNS MONITORING (VSM)	5
CARDIOPULMONARY RESUSCITATION (CPR)	5
AUTOMATED EXTERNAL DEFIBRILLATOR (AED)	5
OXYGEN (O2)	6
SPECIFIC MEDICAL EMERGENCY RESPONSES AND DRUGS	7
CARDIAC ARREST	7
ANGINA AND MYOCARDIAL INFARCTION	7
ALLERGY AND ANAPHYLAXIS	8
HYPOGLYCEMIA AND HYPERGLYCEMIA	9
SYNCOPE AND HYPOTENSION	10
ASTHMA	10
STROKE	10
OVERDOSE BENZODIAZEPHINE	11
OVERDOSE OPIOD	11
SEVERE LOCAL ANESTHETIC TOXICITY	12
SEIZURE	12
MINIMIZING MEDICAL EMERGENCIES	12
CRITICAL INCIDENT REPORTING	13
ACKNOWLEDGEMENTS	13

MEDICAL EMERGENCIES

All dentists and facilities must be prepared to recognize and treat adverse responses and medical emergencies using appropriate emergency equipment and appropriate and current emergency drugs when necessary.

This standard supports aligning dental emergency protocols with evidence-based practices to improve patient safety, reduce errors, and ensure effective emergency responses in dental settings.

The perspective used for this standard is grounded in real-world emergency management, where clinical environments are dynamic and decision-making occurs under pressure. It is important to recognize that written guidance cannot fully eliminate variability in interpretation, clinical judgment, or diagnostic accuracy. **For this reason, emergency treatment protocols should prioritize interventions with a strong safety margin, so that if a therapy is applied in a situation where the diagnosis is uncertain or evolving, the risk of unintended harm remains low.** Framing standards with this principle in mind supports patient safety, reinforces clinician confidence, and acknowledges the realities of inexperienced emergency care under stress. Also, the more involved and technical a protocol or response, the more cognitive load it will demand during an emergency, which can quickly become the focus of the response in favour over the important and life saving skills of BLS and patient positioning.

The intention of this standard is to facilitate the development of a customized emergency protocol and kit that employs method over memory. Emergency drugs and equipment should be included based on the practices, circumstances, and judgement of the dentists and facility.

Types of dental emergencies with possible less severe consequences include: syncope, mild allergy, angina, postural hypotension, seizure, asthma attack, hyperventilation, epinephrine reaction, and hypoglycemia.

Types of dental emergencies with possible more severe consequences include: cardiac arrest, anaphylaxis, myocardial infarction, local anesthetic overdose, heart failure, unconscious diabetic emergency, stroke, and adrenal insufficiency.

The majority of dental emergencies occur during or after local anesthetic.

The majority of dental emergencies occur with extraction and root canal treatments.

EMERGENCY DRUG KIT AND EMERGENCY EQUIPMENT

It is mandatory that all facilities must have a(n):

1. **Automated External Defibrillator (AED);**
2. **E-cylinder of oxygen with means for delivery; and**
3. **Customized emergency drug kit with drugs grouped by the specific emergency which include:**
 - a. Angina and Myocardial Infarction
 - b. Allergy and Anaphylaxis
 - c. Hypoglycemia and Hyperglycemia
 - d. Syncope and Hypotension
 - e. Asthma

Each customized emergency drug kit should have:

- i. clear re-closable plastic bags with emergency specific instruction cards to employ method over memory;
- ii. syringes (3mL);

- iii. epinephrine ampules or Epi-Pen auto-injector;
- iv. diphenhydramine vial;
- v. cetirizine;
- vi. salbutamol inhaler;
- vii. nitroglycerin;
- viii. acetylsalicylic acid (ASA);
- ix. glucose;
- x. flumazenil – (for registrants and facilities administering benzodiazepines);
- xi. naloxone – (for registrants and facilities administering opioids);

4. **Blood pressure monitor.**

It is recommended that all facilities have a:

- 1. **Pulse oximeter;**
- 2. **Glucometer.**

MEDICAL EMERGENCY PREPARATION

- 1. All dentists and facility personnel must maintain **CPR-C with AED** training.
- 2. All dentists should periodically prioritize a **Management of Medical Emergencies** continuing education course.
- 3. All facilities should develop and maintain a **written protocol and procedures** for Management of Medical Emergencies.
- 4. All dentists and facilities should **annually assign, review, and simulate team roles and protocols** during an emergency.
- 5. The **AED, oxygen, emergency drug kit, and other emergency equipment** should be consolidated, readily accessible, and simply organized. All facility personnel should know the location of the consolidated AED, oxygen, emergency drug kit, and other emergency equipment.
- 6. All facilities should **regularly review all emergency equipment and the emergency drug kit**. All emergency equipment, batteries, and drugs must be regularly evaluated with respect to manufacturer's recommendations and maintenance schedules, expiration dates, condition, and performance and replaced as necessary. A register of the emergency drugs with expiration dates may facilitate the ease of maintenance of the emergency drug kit and equipment.
- 7. **Operatories dedicated to surgery or sedation** should consider posting laminated emergency specific instructions on the operatory walls.

MEDICAL EMERGENCY PROTOCOLS, ROLES AND EQUIPMENT

The assignment of roles during a medical emergency should be customized and consolidated according to the practices, circumstances, and judgement of the dentists and facility in collaboration with all facility personnel.

Roles During a Medical Emergency Based on Arrival to Scene:

1. **Rescuer #1** – identification of medical emergency, stays with patient, calls for assistance, initiation of medical emergency and CPR response.
2. **Rescuer #2** – communication to other facility personnel, prioritization of notification to dentist and AED Oxygen Emergency Drug Kit and Other Emergency Equipment Retriever, and possible EMS activation.
3. **Rescuer #3** – assist with most important role as per the circumstance.

Common Roles During a Medical Emergency:

1. **Team Leader (Dentist)** – direction of facility personnel, stay with patient, medical emergency response assessment, administration of drugs, critical incident reporting.
2. **AED, Oxygen, Emergency Drug Kit, and Other Emergency Equipment Retriever**
3. **Airway Rescuer** – position of patient, appropriate oxygen mask, CPR respirations, assist with AED.
4. **Circulation Rescuer** – position of patient, CPR compressions.
5. **AED Operator** – turn on AED, exposure of chest, placement of electrode pads, follow the AED audio and visual instruction commands.
6. **911 Caller and EMS Greeter** – activates emergency medical services upon instruction of the Team Leader, communication address, description emergency, contact family members, greet and usher EMS.
7. **Emergency Drug Kit and Drug Preparation** – emergency specific instructions as per the Team Leader and emergency specific drug preparation.
8. **Emergency Equipment Monitor and Recorder** – communicate vital statistics to team leader, record times of significant events and administration of drugs.
9. **Family Liaison and Waiting Room Management** – ensure the patient's family is contacted, informed, and included in the care; and the waiting room is informed of delays and possible EMS arrival.

The dentist should assume the Team Leader role upon arrival to the medical emergency.

Facility personnel can revert to their assigned role during a medical emergency upon arrival of the required team responders.

Family management is critical to ensure effective patient care, as they can provide very important information and contribute to conversations around continuance, escalation, or changes in care plans. The **patients in the waiting room** should not be surprised by EMS arriving or be required to wait for extended periods of time without being informed.¹

MEDICAL EMERGENCY RESPONSE

LEGEND:

Position (P)

Vital Signs Monitoring (blood pressure, pulse oximeter, glucometer)

ABC or CAB (Airway Breathing Circulation or Compression Airway Breathing) - Cardiopulmonary Resuscitation (CPR)

D Diagnose (911), Defibrillate (AED), Drugs (Oxygen and Emergency Specific Drugs),

¹ Satchell E, Carey M, Dicker B, et al. Family & bystander experiences of emergency ambulance services care: a scoping review. *BMC Emerg Med.* 2023;23(1):68. Published 2023 Jun 14. doi:10.1186/s12873-023-00829-3

POSITION (P)

The goal of the position of a conscious patient is to ensure comfort and minimize stress, anxiety, and trauma.

The goal of the position of an unconscious patient is to improve the ability to rescue the patient, maximize the flow of blood and oxygen to the brain, and to protect the patient.

The main positions during an emergency are supine (hard surface with head below feet), semi-prone (30'), and recovery.

VITAL SIGNS MONITORING (VSM)

Vital signs monitoring during medical emergencies can provide immediate data on cardiovascular and respiratory stability and can detect critical changes in condition (e.g., BP >180/110 or <90/60, HR >100, RR >20, SpO2 <92%) to guide decision-making under pressure in a dynamic and evolving clinical environment.

The implementation of vital signs monitoring is important but should not interrupt or delay life saving skills of BLS and patient positioning.

CARDIOPULMONARY RESUSCITATION (CPR)

CPR is an emergency procedure that combines assessment, chest compressions, and artificial ventilation to maintain blood flow and oxygenation to vital organs until normal heart function is restored. CPR is crucial in situations such as cardiac arrest.

The purpose of CPR is not to revive the patient but to **prevent cerebral hypoxia and buy time until the arrival of emergency medical services.**

The ABCs are designed to prioritize the most critical needs of a person in cardiac arrest.

CPR guidelines have shifted the focus from the traditional **ABC (Airway Breathing Circulation)** to **CAB (Compression Airway Breathing)** in many cardiac arrest situations emphasizing the **importance of starting chest compressions immediately** to maintain blood flow to the brain and to **minimize interruptions of compressions** during placement of the AED and introduction of other emergency procedures.

CPR ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory

CPR ADMINISTRATION

ABC (Airway Breathing Circulation)

Or

CAB (Compression Airway Breathing)

Compressions Adult (30:2)

Compressions Child (15:2)

AUTOMATED EXTERNAL DEFIBRILLATOR (AED)

Automated (device reads heart rhythm) External (electrode pads on outside of chest) Defibrillator (removes fibrillation).

An AED is a portable device that diagnoses and treats life threatening cardiac arrhythmias through early defibrillation, significantly increasing the chances of survival during cardiac emergencies.

An AED is most effective in conjunction with CPR.

Some AEDs may be used on children (1 to 8 years). If a particular model of AED is approved for pediatric use, all that is required is the use of pediatric appropriate electrode pads. Inquire with the manufacturer and the manufacturer's instructions with regards to pediatric use.

AEDs are equipped with simple audio and visual instruction commands, making them user friendly.

The use of AEDs is commonly taught in first aid and CPR classes.

AED ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory.

AED ADMINISTRATION

1. Verify a cardiac emergency.
2. Perform and do not interrupt **CPR** (compressions).
3. Turn on **AED**.
4. Expose the chest (cut away clothing, hair removal with razor or expired pads, dry the skin).
5. Placement of electrode pads as per manufacturer's instructions:
 - Adult (upper right clavicle sternum borders, lateral left sub nipple and axilla).
 - Children (central chest and central back)
6. Follow the **AED** audio and visual instructions commands.
- Maintain **CPR** as necessary.

OXYGEN (O₂)

The emergency administration of oxygen is a critical intervention for individuals experiencing respiratory distress or hypoxia.

A **bag valve mask (BVM)** is essential to provide positive pressure ventilation to patients who are not breathing or not breathing adequately.

A **non-rebreather mask (NRM)** provides oxygen in higher concentrations to patients with low blood oxygen levels but can breathe on their own.

OXYGEN ALGORITHM

- clear re-closable plastic bag to contain
 - emergency specific instruction card to employ method over memory

OXYGEN ADMINISTRATION

1. Attach one end of **oxygen** tubing to mask and the other end to the **oxygen** source.
2. Open the **oxygen** source with the wrench key.
3. Turn the regulator valve to the flow necessary for the appropriate mask type below:
 - A Bag Valve Mask requires a flow of 15-25 L/min;
 - A Non Rebreather Mask with a reservoir bag requires a minimum flow rate of 10 L/min, with 12-15 L/min recommended;
 - A Simple Mask requires a flow of 6-10 L/min;
 - A Nasal Cannula requires 1-6 L/min depending on oxygen saturation and patient distress.
4. Ensure the mask reservoir bag is inflated before placing the mask on the patient.
5. Placement of mask over patient's face, covering both nose and mouth.
6. Slip elastic band over patient's head below the ears and adjust for comfort.
7. Pinch mask nose clip to provide a seal.

SPECIFIC MEDICAL EMERGENCY RESPONSES AND DRUGS

CARDIAC ARREST:

The only known method to improve survivability in cardiac arrest is to **reduce the delays to and interruption during chest compressions**, and to **increase the rate of defibrillation**.²

CARDIAC ARREST ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory

CARDIAC ARREST Symptoms:

Brief seizure activity; Agonal breathing; No breathing; Unresponsive; No pulse.

CARDIAC ARREST

1. **911**
2. **Position** – **supine** (hard surface head below feet)
3. **CPR – ABC / CAB** Adult (Compressions 30: Breaths 2); Child (Compressions 15: Breaths 2)
4. **AED** (ASAP – early defibrillation is crucial)
5. **Oxygen Bag Valve Mask** at 15 to 25 L/min

ANGINA AND MYOCARDIAL INFARCTION:

ANGINA AND MYOCARDIAL INFARCTION ALGORITHM

- clear re-closable plastic bag to contain:
 - **nitroglycerin**
 - **ASA 160-325mg (non-enteric coated)**
 - The appropriate aspirin should be selected so there is no delay in the bioavailability of the aspirin.
 - emergency specific instruction card to employ method over memory

KNOWN HISTORY ANGINA Symptoms

History; Pain; Localizing pain; Blood pressure (BP) increase; Nitroglycerin effective.

Angina has the potential to progress to cardiac arrest.

KNOWN HISTORY ANGINA

1. **Position** – semi-prone and comfortable
2. Vital Signs Monitoring
3. **ABC / CAB**
4. **Oxygen Non-Rebreather Mask** 12 to 15 L/min
5. **Nitroglycerin** – allow 5 minutes
6. Blood Pressure Assessment between each dose of nitroglycerin to reduce hypotension risk.
7. If no relief, repeat **nitroglycerin** – allow 5 minutes
8. Blood Pressure Assessment between each dose of nitroglycerin to reduce hypotension risk.
9. If no relief, repeat **nitroglycerin** – allow 5 minutes
10. If no relief after 3 doses – **911**
11. **ASA 160-325mg** chew and swallow

Nitroglycerin Possible Contraindication

BP<90/60 and Pulse<50

Erectile dysfunction medications within 24 to 48 hours

² Hessulf F, Herlitz J, Rawshani A, et al. Adherence to guidelines is associated with improved survival following in-hospital cardiac arrest. *Resuscitation*. 2020;155:13-21. doi:10.1016/j.resuscitation.2020.07.009

NO HISTORY ANGINA / MYOCARDIAL INFARCTION Symptoms:

No history; Severe crushing pain; Radiating pain to arm, neck, jaw, shoulders; BP decrease; Toothache; Nausea and vomiting; Shortness of breath; Sweating; Dizziness; Sense of doom; Palpitations; Nitroglycerin not effective.
Angina has the potential to progress to cardiac arrest.

NO HISTORY ANGINA / MYOCARDIAL INFARCTION

1. **Position** – semi-prone and comfortable
2. Vital Signs Monitoring
3. **ABC / CAB**
4. **911**
5. **Oxygen** flow necessary for the appropriate mask type
6. **Nitroglycerin (ONLY if the patient has a prescription for nitroglycerin)** – allow 5 minutes
7. Blood Pressure Assessment between each dose of nitroglycerin to reduce hypotension risk.
8. If no relief, repeat **nitroglycerin (ONLY if the patient has a prescription for nitroglycerin)** – allow 5 minutes
9. Blood Pressure Assessment between each dose of nitroglycerin to reduce hypotension risk.
10. If no relief, repeat **nitroglycerin (ONLY if the patient has a prescription for nitroglycerin)** – allow 5 minutes
11. If no relief after 3 doses – **ASA 325mg** chew and swallow

Nitroglycerin Possible Contraindication

Nitroglycerin dosing should be given ONLY if the patient has a prescription for nitroglycerin.

The benefits of nitroglycerin do not always outweigh the risk of hypotension.

BP<90/60 and Pulse<50

Erectile dysfunction medications within 24 to 48 hours

ALLERGY AND ANAPHYLAXIS:**ALLERGY AND ANAPHYLAXIS ALGORITHM**

- clear re-closable plastic bag to contain:
 - **epinephrine ampule 1:1000/mL X 2** or **Epi-Pen auto-injector**
 - **diphenhydramine** vial 50 mg/mL
 - **cetirizine 10mg**
 - syringe x 2
 - emergency specific instruction card to employ method over memory

ANAPHYLAXIS Symptoms: ³		
NO Known Allergen Exposure	Likely or Known Allergen Exposure	Known Allergen Exposure
Sudden onset of symptoms with Rash/Hives/Itching and either:	Sudden onset of 2 or more symptoms:	Sudden onset of either:
Respiratory Symptoms: Shortness of breath Wheezing / cough / stridor / voice change	Respiratory Symptoms: Shortness of breath Wheezing / cough / stridor / voice change	Respiratory Symptoms: Shortness of breath Wheezing / cough / stridor / voice change
Cardiovascular Symptoms: Blood pressure <90 systolic Weakness / dizziness / syncope	Cardiovascular Symptoms: Blood pressure <90 systolic Weakness / dizziness / syncope	Cardiovascular Symptoms: Blood pressure <90 systolic Weakness / dizziness / syncope
	Skin and Mucus Membrane: Rash / hives / itching Swelling of: face / lips / mouth / tongue / throat	
	Gastrointestinal Symptoms: Vomiting / stomach pain / cramping / diarrhea	

³ Dribin TE, Muraro A, Camargo CA Jr, et al. Anaphylaxis definition, overview, and clinical support tool: 2024 consensus report-a GA²LEN project. *J Allergy Clin Immunol*. 2025;156(2):406-417.e6. doi:10.1016/j.jaci.2025.01.021

ANAPHYLAXIS

1. **Position** – Supine (head below feet)
2. **ABC / CAB**
3. **911**
4. **Epinephrine** 1:1000 (0.5mL intramuscular) or **Epi-Pen auto-injector**
Repeat every 10 minutes as necessary
5. **Oxygen** flow necessary for the appropriate mask type
6. **Diphenhydramine** 50mg (1mL intramuscular)
7. Vital Signs Monitoring

NON-ANAPHYLAXIS

1. **Position** – semi-prone and comfortable
2. Vital Signs Monitoring
3. **Cetirizine** 10mg (one dose)

HYPOGLYCEMIA AND HYPERGLYCEMIA:

HYPOGLYCEMIA AND HYPERGLYCEMIA ALGORITHM

- clear re-closable plastic bag to contain:
 - **oral glucose gel** or other form
 - emergency specific instruction card to employ method over memory

HYPOGLYCEMIA Symptoms:

Warm sweaty skin; Heart rate (HR) increase; Hungry; Irritability; Tremors; Weakness.

HYPOGLYCEMIA CONSCIOUS

1. **Position** – semi-prone and comfortable
2. **Oral Glucose** (Adults 20g, Children 15g)
3. **Oxygen** flow necessary for the appropriate mask type
4. Glucometer monitoring if available and Vital Signs Monitoring

HYPERGLYCEMIA Symptoms

Dry mouth and skin; Thirsty; Fruity smell breath; Frequent urination.

HYPERGLYCEMIA CONSCIOUS

1. **911**
2. **Position** – semi-prone
3. **ABC / CAB**
4. Glucometer monitoring if available and Vital Signs Monitoring

HYPO/HYPER GLYCEMIA UNCONSCIOUS

1. **911**
2. **Position** - supine (head below feet)
3. **ABC / CAB**
4. **Oxygen** flow necessary for the appropriate mask type
5. Glucometer monitoring if available and Vital Signs Monitoring

SYNCOPE AND HYPOTENSION:

SYNCOPE AND HYPOTENSION ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory

SYNCOPE AND HYPOTENSION Symptoms:

Warm fuzzy feeling; Sweating; Pallor; Faint feeling; BP decrease; HR increase.

SYNCOPE AND HYPOTENSION

1. **Position** - supine (head below feet)
2. Vital signs monitoring
3. **ABC / CAB**
4. **Oxygen** flow necessary for the appropriate mask type
5. Refer to medical physician

ASTHMA:

ASTHMA ALGORITHM

- clear re-closable plastic bag to contain:
 - **salbutamol** inhaler
 - inhaler aerochamber with mask
 - **epinephrine** ampule 1:1000/mL X 2
 - syringe x 1
 - emergency specific instruction card to employ method over memory

ASTHMA Symptoms:

Wheezing during exhaling; Rapid breathing; Shortness of breath; Difficulty breathing and talking; Coughing; Anxiety.

Mild to moderate symptoms: Expiratory wheezing without inspiratory wheeze / Speaks in full or partial sentences / Shortness of breath at rest / Respiratory rate less than 40/min

Severe or near Death: Distant wheeze or silent chest / Single word sentences or cannot speak / Respiratory rate greater than 40/min or failure to breathe effectively / Confused or unresponsive

ASTHMA

1. Position – semi-prone and comfortable
2. Vital Signs Monitoring
3. **Salbutamol** Inhaler with inhaler aerochamber
4 to 8 dispenses within 1 to 2 minutes and repeat every 20 minutes up to three times if effective.

If symptoms unresolved or progress, then add:

4. **911**

If patient is Severe or Near Death Administer:

5. **Epinephrine** 1:1000 (0.5 of 1mg/ml intramuscular)
Repeat every 10 minutes as necessary

STROKE:

STROKE ALGORITHM

- clear re-closable plastic bag to contain
 - emergency specific instruction card to employ method over memory

STROKE Symptoms:

FAST – Face droop, Arms weakness, Speech slur, Time. **911** ASAP

Severe sudden headache; Confusion; Weakness or numbness on one side – arms or legs; Blur vision; Dizziness.

STROKE

1. Position - (paralyze side down)
2. **ABC / CAB**
3. **911**
4. **Oxygen** flow necessary for the appropriate mask type
5. Vital Signs Monitoring

***NO ASA or nitroglycerin**

OVERDOSE BENZODIAZEPINE:

OVERDOSE BENZODIAZEPINE ALGORITHM

- clear re-closable plastic bag to contain:
 - **flumazenil** ampule 0.5mg/5mL x 2
 - syringe x 1
 - emergency specific instruction card to employ method over memory

OVERDOSE BENZODIAZEPINE Symptoms:

Slurred speech; Drowsiness or unconsciousness; Confusion; Shallow or slow breathing; Uncoordinated movements.

OVERDOSE BENZODIAZEPINE

1. **911**
2. **ABC / CAB** - maintain open airway with head tilt, chin lift or jaw thrust.
3. **Oxygen** with Bag Valve Mask 15 to 25 L/min if breathing not effective
4. Position – Supine (head below feet)
5. **Flumazenil** (3ml intramuscular)
Repeat (1mL intramuscular) every 1 minute as necessary to a maximum 10mL
6. Vital Signs Monitoring

OVERDOSE OPIOID:

OVERDOSE OPIOID ALGORITHM

- clear re-closable plastic bag to contain:
 - **naloxone** intranasal 4mg or **naloxone** IM
 - emergency specific instruction card to employ method over memory

OVERDOSE OPIOID Symptoms:

Unconsciousness or unresponsiveness; Pinpoint pupils; Slow shallow or stopped breathing; Cold clammy skin; Blue or purple lips; Vomiting; Slow or undetectable pulse.

OVERDOSE OPIOID

1. **911**
2. **ABC / CAB** - maintain open airway with head tilt, chin lift or jaw thrust.
3. **Oxygen** with Bag Valve Mask 15 to 25 L/min if breathing not effective
4. Position – Supine (head below feet)
5. Vital Signs Monitoring
6. **Naloxone** intranasal (1 dispense)
Ensure the patient receives oxygenation and does not stay apneic while naloxone is administered. Naloxone should only be administered once the patient is properly oxygenated.

SEVERE LOCAL ANESTHETIC TOXICITY:

SEVERE LOCAL ANESTHETIC TOXICITY ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory

SEVERE LOCAL ANESTHETIC TOXICITY Symptoms:
Excitation follow by depression; Agitation; Seizure; Coma.

SEVERE LOCAL ANESTHETIC TOXICITY

1. **911**
2. Position – Supine (head below feet)
3. **ABC / CAB – Airway**
4. Seizure monitor and protect
5. Vital Signs Monitoring

SEIZURE:

SEIZURE ALGORITHM

- clear re-closable plastic bag to contain:
 - emergency specific instruction card to employ method over memory

SEIZURE Symptoms:

Petit mal: blank stare

Myoclonic: repetitive muscle jerking

Atonic: loss of postural tone with collapse to the floor

Grand mal (90%): tonic clonic rigid and shaking

SEIZURE PETIT MAL

1. Seizure – allow to occur
2. Position – Supine with head and airway protection
3. **> 5 minutes 911**
4. **ABC / CAB**
5. **Oxygen** flow necessary for the appropriate mask type
6. Vital signs Monitoring

SEIZURE GRAND MAL

1. Seizure – allow to occur
2. Position – Supine with head and airway protection
3. **911**
4. **ABC / CAB**
5. **Oxygen** flow necessary for the appropriate mask type
6. Vital Signs Monitoring

MINIMIZING MEDICAL EMERGENCIES

1. Thorough **medical history**.
 - The best practice is to update the written medical history annually, acquire a verbal medical history update at each appointment, document the update with any changes in the patient record, and identify any conditions that may require referral to a physician for medical management and the deferring of dental procedures.

2. Assign **ASA Classifications**.

- These classifications evaluate patients' health risk and determine appropriate treatment protocols. ASA III Classifications may require additional protocols and ASA IV Classifications may require deferring elective dental procedures or referral to a dental specialist.

3. Assess **blood pressure**.

- A blood pressure measurement that is high (greater than or equal to 180/110) may require referral to a physician for medical management and deferring of dental procedures.

4. Consider **referral** as necessary.

5. Profound & comfortable **local anesthetic**.

6. Consider the **maximum dose** of local anesthetic that may be safely administered, especially for children, the elderly, and the medically compromised. Whenever sedation or general anesthesia is used, the calculated maximum dose of local anesthetic may need to be further adjusted to provide a greater margin of safety.

7. **Stress reduction protocol**.

CRITICAL INCIDENTS REPORTING

It is mandatory that critical and reportable incidents be reported to the College by a written report from the responsible registrant in a timely manner in an attempt to identify and mitigate potential risks and harms.

The mandatory reporting is for quality assurance purposes only, is confidential, and is prohibited from being used as evidence in professional conduct or legal proceedings but may be utilized for educational purposes to the profession in a redacted format.

The intention of critical incident reporting is to lead to improvements in patient care and safety and encourage trust in the health care system through transparency.

ACKNOWLEDGEMENTS

The College acknowledges that this statement has been adapted, in many parts with no changes, from the respective statements of Dr. David Isen (Saskatchewan Oral Health Conference September 2023) and Dr. Daniel Pompa (National Oral Health Convention August 2025). The College acknowledges the efforts of Tony Korobanik, ACP (<http://www.preparednow.ca/> - Emergency-Ready Dental Clinics) in editing this standard.

The College recognizes, with thanks, the contributions of Dr. David Isen, Dr. Daniel Pompa, and Tony Korobanik to the development of this guideline.