

EMERGENCY DRUG KIT

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MEDICAL EMERGENCIES

The intention of providing this material is to facilitate the development of your own customized emergency kit. The drugs supplied are to be used consistent with the principals discussed in this course. The addition of an E-cylinder of oxygen with means for delivery is considered essential. Additional drugs and equipment could be added, based on your judgement. Please make note of the expiry dates and arrange to replace the drugs as necessary, through any pharmacy you deal with.

Each emergency kit is contained within one large freezer bag, and contains the following:

- 4 small zipper sandwich bags
- 4 file cards
- 4 syringes (3mL)
- 4 epinephrine ampoules
- 1 atropine ampoule
- 1 diphenhydramine vial
- 1 salbutamol inhaler
- 1 bottle nitro-glycerine
- ASA

CONTENTS OF BAG

It is suggested that they be arranged as follows:

Allergy/Anaphylaxis bag:

- Epinephrine ampule (1ml OF 1:1,000) X 2
- Diphenhydramine vial (50 mg/ml)
- syringe x 2
- card

Asthma bag:

- Salbutamol inhaler
- Epinephrine ampule x 2
- Syringe

- Card

Angina/MI bag:

- Nitro-glycerine bottle
- ASA
- Card

Syncope/Hypotension bag:

- Atropine 0.6 mg/mL
- Syringe
- Card

EMERGENCY PREPARATION

- Key office staff should have CPR training
- In-office review of roles
- In-office drills
- Review kit periodically
- Emergency number should be posted
- Have a written emergency protocol in place in the office.
- Assign duties (as an example; modify as appropriate for your office)

Member #1 Leader: directs staff

Stays with patient

ABC's of CPR as necessary

If dentist, administers drugs, if required

Member #2 Brings emergency kit and oxygen

Assists with CPR as required

Checks emergency kit regularly

Prepares emergency drugs for administration

Member #3 Activates EMS (calls 911) if

instructed to do so by Member #1

Meets paramedics at building entrance (as instructed over phone)

Assists with CPR as required

EMERGENCY KIT

- Readily accessible
- Simple organization
- Expiry date notation
- Consider
 - Group drugs by emergency
 - “Baggie” approach
 - Group purchasing

SUGGESTED READING

Malamed, S.F. Medical Emergencies in the Dental Office. 5th ed., Mosby, 2000

CARDIAC ARREST

(if no ECG monitoring)

- Call 911: if it is an MI, early defibrillation is crucial
- CPR
- 100% oxygen
- AED if available
- Epinephrine 1 mg i.v., as long as CPR is not interrupted (airway control and ventilation support is more important than medications)

AED (Automated External Defibrillators)

- Allows early defibrillation
- Now part of BLS training in U.S.
- No need for ECG recognition
- Voice prompts
- Not for children

Steps

- Verify cardiac arrest
- Turn on AED
- Place electrodes
- Analyze rhythm
- Deliver shock if advised

ANGINA

If positive history	If negative history
1. ABCs & O2	ABC's & O2
2. Nitro-glycerine If no relief after 3 -5 minutes: Call 911	Call 911
3. Repeat If no relief after 3 – 5 minutes: nitro-glycerine	nitro-glycerine
4. Repeat If no relief after 3 – 5 minutes: repeat	repeat
5. Call 911 (assume MI)	repeat
6. Analgesic: Morphine 2mg iv or 5mg IM OR N2O:O2 (if elderly, nitrous oxide may be preferred over morphine)	Analgesic: Morphine or N2O:O2
7. ASA 160 or 325 mg	ASA 160 or 325 mg

LOCAL ANAESTHETIC EMERGENCIES

- psychogenic reactions
- allergic reactions
- toxicity:
 - overdose of local anesthetic
 - overdose of vasoconstrictor

Psychogenic reactions

- syncope
- nausea, vomiting
- alterations in heart rate or blood pressure
- hyperventilation
- mimic an allergic reaction

Possible Allergens

- esters
- methylparaben

- metabisulfite
- specific amide

Local Anesthetic Toxicity

<u>Level:</u>	<u>Signs:</u>
Low:	sedation, analgesia, antiarrhythmic activity
Intermediate:	light headedness, slurred speech, drowsiness, euphoria/dysphoria, diplopia Sensory disturbances, muscle twitching
High:	disorientation, tremors, respiratory depression, tonic/clonic seizures
Lethal:	coma, respirator arrest, cardiovascular collapse

Recommended maximum doses of local anesthetic, with vasoconstrictor.

Drug	Maximum Dose	Maximum # of cartridges
lidocaine	7mg/kg (up to 500mg)	13
mepivacaine	7mg/kg (up to 400mg)	11 (or 7 if plain)
prilocaine	8mg/kg (up to 500 mg)	8
bupivacaine	2mg/kg (up to 200mg)	10
articaine	7mg/kg (up to 500mg)	7