Common Medical emergencies in the dental practice

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Why it is important?

- 1. prevalence
  - Bystander death reports (90% in ten years practice)
- 2. substitution
- 3. medico legal consequences
- 4. self confidence

prevalence

Syncope	15,407
Mild allergic reaction	2583
Angina pectoris	2552
Postural hypotension	2475
Seizures	1595
Asthmatic attack (bronchospasm)	1392
Hyperventilation	1326
"Epinephrine reaction"	913
Insulin shock (hypoglycemia)	890
Cardiac arrest	331
Anaphylactic reaction	304
Myocardial infarction	289
Local anesthetic overdose	204
Acute pulmonary edema (heart failure)	141
Diabetic coma	109
Cerebrovascular accident	68
Adrenal insufficiency	25
Thyroid storm	4

- Medical history
  - https://dental.pacific.edu/dental/dental-services/professional/documents
- Medical interview
- Emergency kit
- Medical emergencies mostly happen within *10 minutes* after dental anesthesia injection

MetLife

HEALTH HISTORY

English

Pacific Dental School

Patient Name:________________________________ Patient Identification Number:________________

Birth Date:________________________

I. CIRCLE APPROPRIATE ANSWER (leave Blank if you do not understand question):

1.	Yes	No	Is your general health good?
2.	Yes	No	Has there been a change in your health within the last year?
3.	Yes	No	Have you been hospitalized or had a serious illness in the last three years? If YES, why?________________
4.	Yes	No	Are you being treated by a physician now? For what?________________ Date of last medical exam?__________ Date of last Dental exam__________
5.	Yes	No	Have you had problems with prior dental treatment?
6.	Yes	No	Are you in pain now?

II. HAVE YOU EXPERIENCED:

7.	Yes	No	Chest pain (angina)?	18.	Yes	No	Dizziness?
8.	Yes	No	Swollen ankles?	19.	Yes	No	Ringing in ears?
9.	Yes	No	Shortness of breath?	20.	Yes	No	Headaches?
10.	Yes	No	Recent weight loss, fever, night sweats?	21.	Yes	No	Fainting spells?
11.	Yes	No	Persistent cough, coughing up blood?	22.	Yes	No	Blurred vision?
12.	Yes	No	Bleeding problems, bruising easily?	23.	Yes	No	Seizures?
13.	Yes	No	Sinus problems?	24.	Yes	No	Excessive thirst?
14.	Yes	No	Difficulty swallowing?	25.	Yes	No	Frequent urination?
15.	Yes	No	Diarrhea, constipation, blood in stools?	26.	Yes	No	Dry mouth?
16.	Yes	No	Frequent vomiting, nausea?	27.	Yes	No	Jaundice?
17.	Yes	No	Difficulty urinating, blood in urine?	28.	Yes	No	Joint pain, stiffness?

III. DO YOU HAVE OR HAVE YOU HAD:

29.	Yes	No	Heart disease?	40.	Yes	No	AIDS
30.	Yes	No	Heart attack, heart defects?	41.	Yes	No	Tumors, cancer?
31.	Yes	No	Heart murmurs?	42.	Yes	No	Arthritis, rheumatism?
32.	Yes	No	Rheumatic fever?	43.	Yes	No	Eye diseases?
33.	Yes	No	Stroke, hardening of arteries?	44.	Yes	No	Skin diseases?
34.	Yes	No	High blood pressure?	45.	Yes	No	Anemia?
35.	Yes	No	Asthma, TB, emphysema, other lung diseases?	46.	Yes	No	VD (syphilis or gonorrhea)?
36.	Yes	No	Hepatitis, other liver disease?	47.	Yes	No	Herpes?
37.	Yes	No	Stomach problems, ulcers?	48.	Yes	No	Kidney, bladder disease?
38.	Yes	No	Allergies to: drugs, foods, medications, latex?	49.	Yes	No	Thyroid, adrenal disease?
39.	Yes	No	Family history of diabetes, heart problems, tumors?	50.	Yes	No	Diabetes?

IV. DO YOU HAVE OR HAVE YOU HAD:

51.	Yes	No	Psychiatric care?	56.	Yes	No	Hospitalization?
52.	Yes	No	Radiation treatments?	57.	Yes	No	Blood transfusions?
53.	Yes	No	Chemotherapy?	58.	Yes	No	Surgeries?
54.	Yes	No	Prosthetic heart valve?	59.	Yes	No	Pacemaker?
55.	Yes	No	Artificial joint?	60.	Yes	No	Contact lenses?

V. ARE YOU TAKING:

61.	Yes	No	Recreational drugs?	63.	Yes	No	Tobacco in any form?
62.	Yes	No	Drugs, medications, over-the-counter medicines (including Aspirin), natural remedies?	64.	Yes	No	Alcohol?

Please list:____

____

VI. WOMEN ONLY:

65.	Yes	No	Are you or could you be pregnant or nursing?	66.	Yes	No	Taking birth control pills?

VII. ALL PATIENTS:

67. Yes No Do you have or have you had any other diseases or medical problems NOT listed on this form?

If so, please explain:____________________________________

____

To the best of my knowledge, I have answered every question completely and accurately. I will inform my dentist of any change in my health and/or medication.

Patient's signature:________________________________Date:________________

RECALL REVIEW:

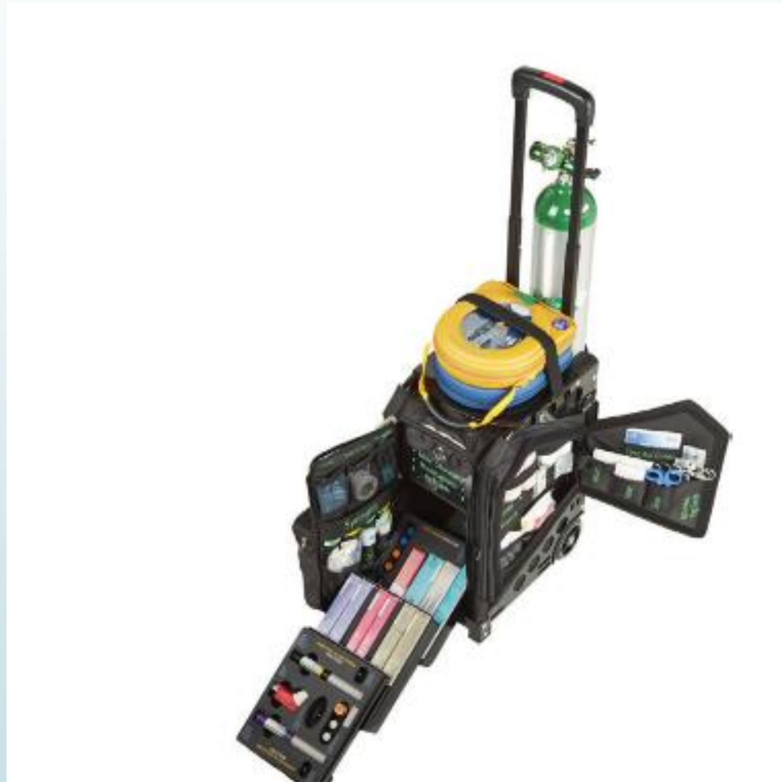
1. Patient's signature________________________________Date:________________
2. Patient's signature________________________________Date:________________
3. Patient's signature________________________________Date:________________

The Health History is created and maintained by the University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco, California.
Support for the translation and dissemination of the Health Histories comes from MetLife Dental.

Necessary dental office equipment

Alternative light source for use during power failure	Acetylsalicylic acid (readily absorbable form)
Automated external defibrillator (AED)	Ammonia inhalants
Disposable CPR masks (pediatric and adult)	Antihistamine
Disposable syringes, assorted sizes	Antihypoglycemic agent
Disposable pediatric and adult face masks or positive pressure ventilation with supplemental oxygen	Bronchodilator
Oxygen (portable Cylinder E tank) pediatric and adult masks capable of giving positive pressure ventilation (including bag-valve-mask system)	Epinephrine preloaded syringes (pediatric and adult)
Sphygmomanometer and stethoscope for pediatric and adult patients	Two epinephrine ampules
Suction	Oxygen
Any other equipment as may be required by the Board	Vasodilator
	Any other drugs or categories of drugs as may be required by the Board.

Emergency kit



لیست داروهای بسته اورژانس (Emergency Box) مطب پزشکان و دندانپزشکان

ردیف	دارو	تعداد
1	آمپول اپی نفرین	5 عدد
2	آمپول آتروپین	5 عدد
3	آمپول لیدوکائین 2٪	5 عدد
4	آمپول دیازپام	5 عدد
5	آمپول هیدروکورتیزون 100 میلی گرم	2 عدد
6	آمپول دگزامتازون	3 عدد
7	آمپول متوکلوپرامید	2 عدد
8	آمپول آنتی هیستامین (کلروفنیرامین یا کلماستین)	5 عدد
9	محلولهای وریدی قابل تزریق 1000 سی سی یا 500 سی سی نرمال سالین یا رینگر	حداکثر 2 عدد
10	پرل TNG یا اسپری TNG	5 عدد-1 عدد
11	ویال گلوکز 20٪ یا ویال گلوکز 50٪	5عدد-2 عدد
12	آب مقطر	5 عدد

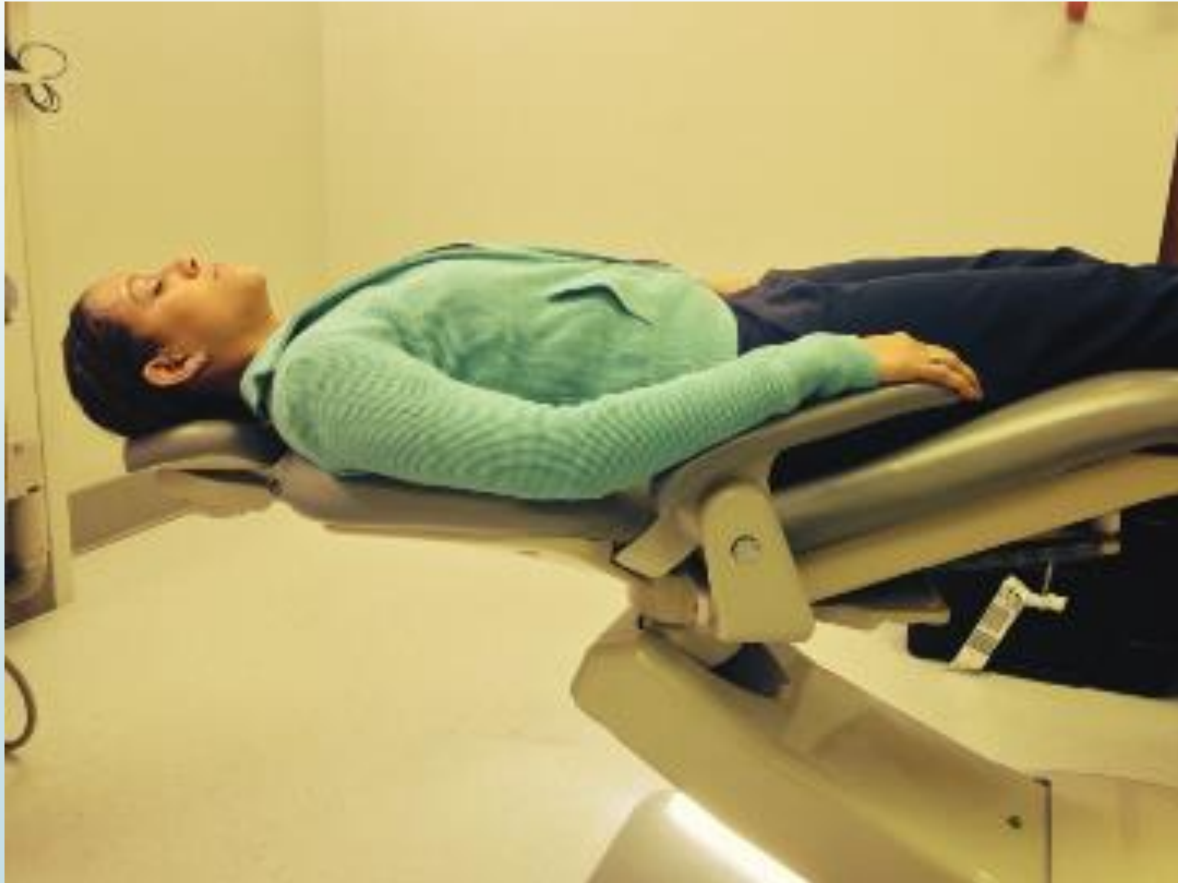
ردیف	دارو	مطب پزشکان و دندانپزشکان	مطب پزشکان اطفال
1	لارنگوسکوپ همراه تیغه	یک سایز اطفال (میلر) دو سایز بزرگ (خمیده)	میلر سایز 1 و خمیده سایز 1، هر کدام 1 عدد
2	یک تهویه با فشار مثبت و ماسک	1 عدد	1 عدد با ماسک اطفال
3	لوله تراشه	3 سایز (سایز اطفال 3/5 بزرگسال 7 و 7/5)	2 سایز 3 و 5 هر کدام 1 عدد
4	Air Way دهانی-حلقی	2 سایز 8 و 10	2 اندازه، هر کدام 1 عدد
5	سوند نلاتون	سایز 16 و 18، هر کدام 1 عدد	اندازه اطفال ، 2 عدد
6	آنژیوکت	2 عدد صورتی، 2 عدد آبی	2 عدد صورتی، 2 عدد آبی
7	دستگاه ساکشن	دستی یا برقی	دستی یا برقی
8	کپسول اکسیژن	همراه با رابط اکسیژن ماسک صورت با مانومتر	همراه با رابط ماسک مناسب با مانومتر
9	سرنگ 2 و 5 سی سی	10 عدد، سرسوزن 5 عدد	10 عدد، سرسوزن 5 عدد
10	چسب لکوپلاست یا CM، قیچی، ست سرم، باند نخی هر کدام یک عدد، پنبه الکل، دستکش لاتکس دو عدد		

BLS steps (all emergency situation)

- Positioning
- Airway
- Breathing
- Circulation
- Definitive care
- PCABD vs. PABCD

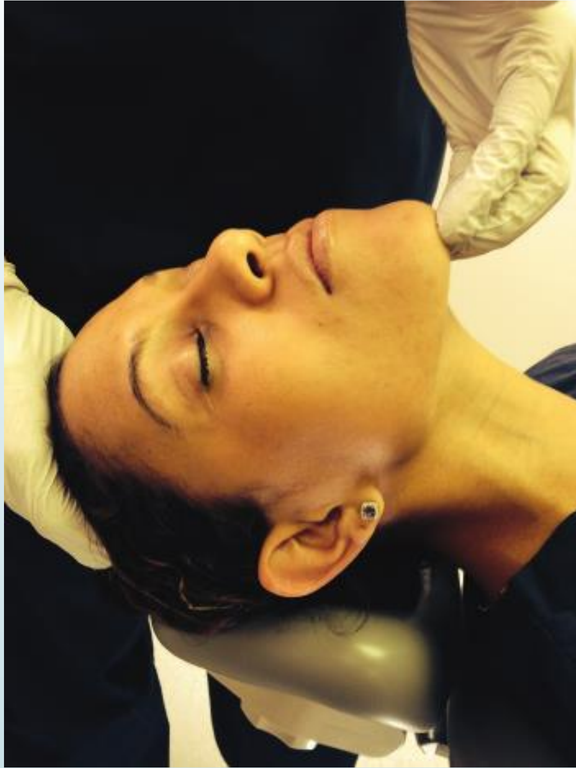
Management

P

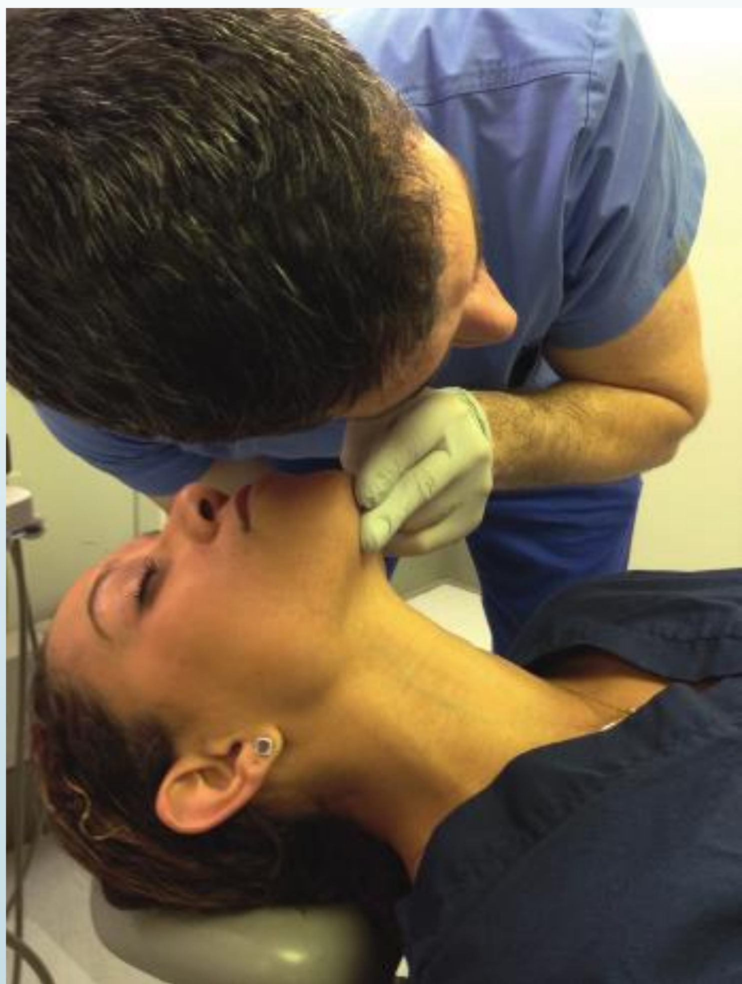


Management

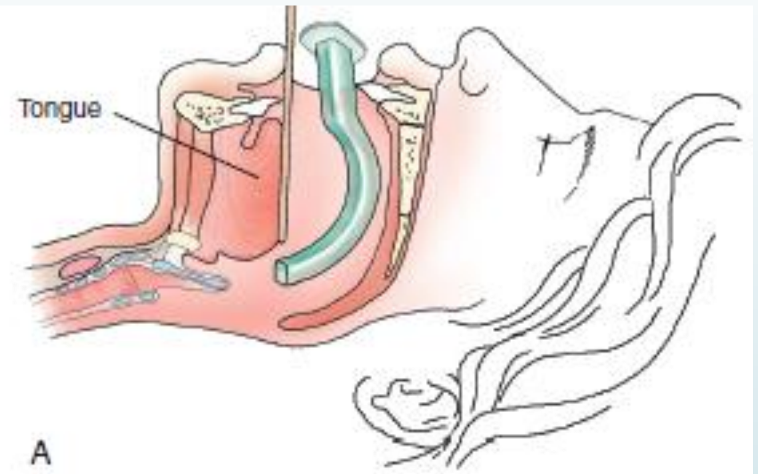
A



B

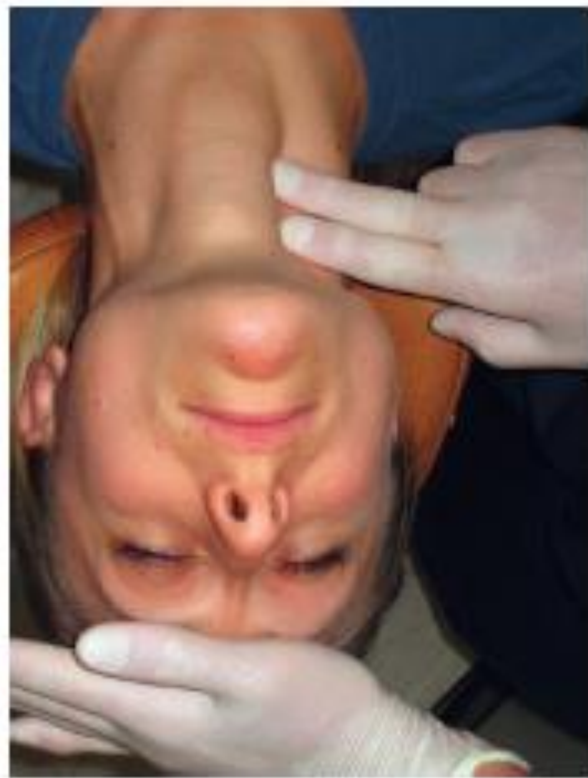


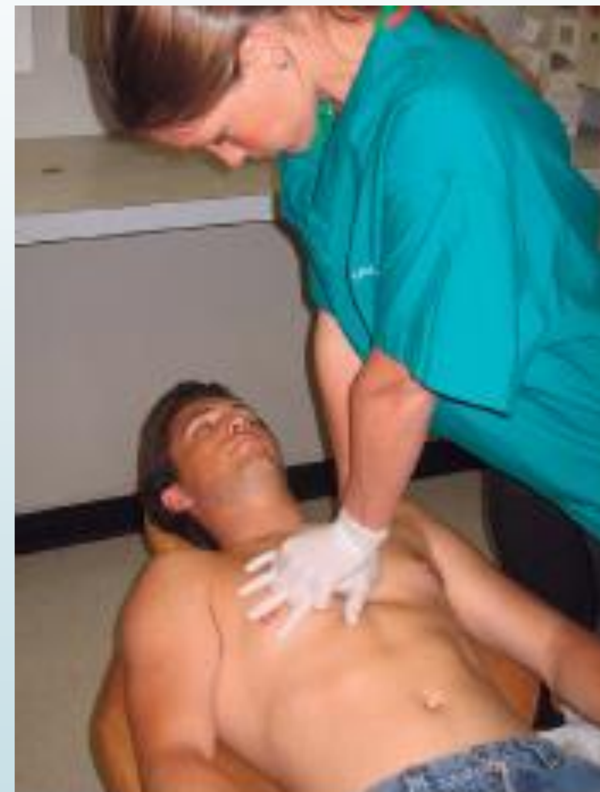
Nasopharyngeal Airways
Nasal "Trumpets"


Tongue
A

Oral Pharyngeal Airways

C





- Pathophysiology
  - Cerebral oxygen consumption not fulfilled
- Predisposing factor
  - Psychogenic factors (pain ,fear,…)
  - Positioning, hunger, exhaustion, humid hot environment

Pre syncope

EARLY

Feeling of warmth
Loss of color; pale or ashen-gray skin tone
Heavy perspiration (diaphoresis)
Reports of "feeling bad" or "feeling faint"
Nausea
Blood pressure at baseline level or slightly lower
Tachycardia

LATE

Pupillary dilation
Yawning
Hyperpnea
Cold hands and feet
Hypotension
Bradycardia
Visual disturbances
Dizziness
Loss of consciousness

- Positioning
- CAB
- Definitive care (O2 therapy and ***postpone further treatment***)
- Activate EMS (***delay response***)

Prodrome:

1. Terminate all dental treatment.
2. Position patient in supine posture with legs raised above level of head.
3. Attempt to calm patient.
4. Place cool towel on patient's forehead.
5. Monitor vital signs.

Syncopal episode:

1. Terminate all dental treatment.
2. Position patient in supine posture with legs raised.
3. Check for breathing.

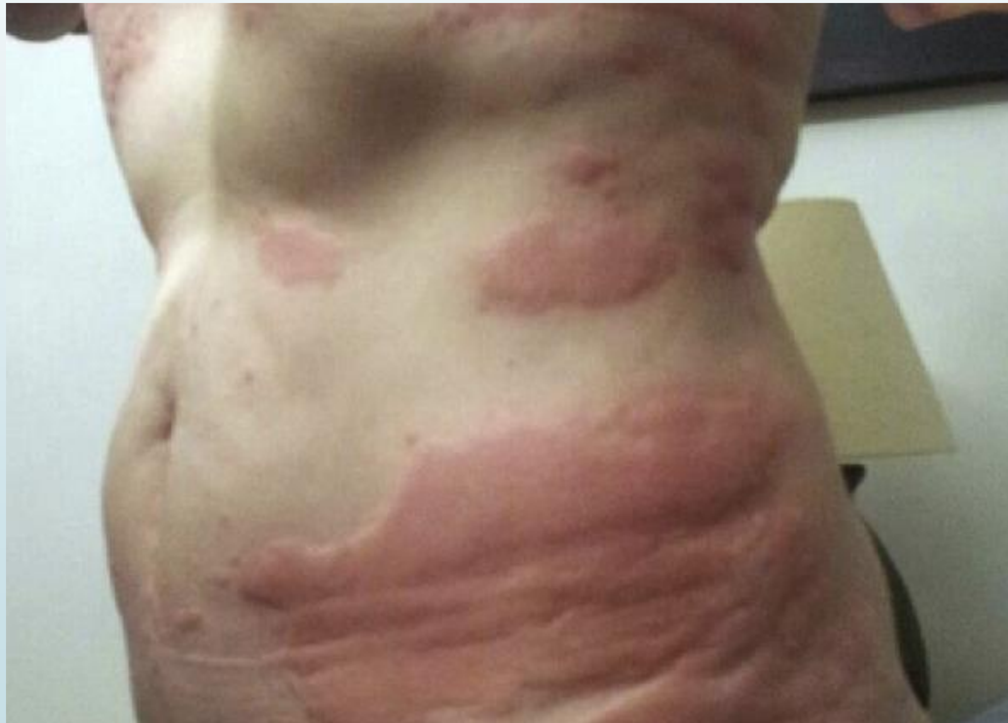
If absent:

4. Start basic life support.
5. Have someone summon medical assistance.
6. Consider other causes of syncope, including hypoglycemia, cerebral vascular accident, or cardiac dysrhythmia.

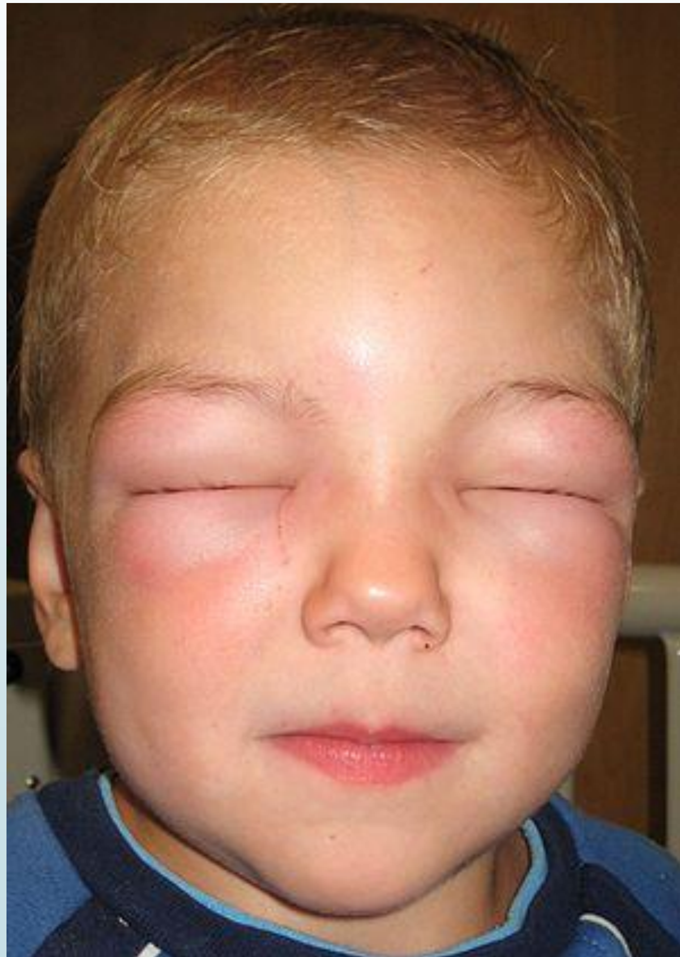
If present:

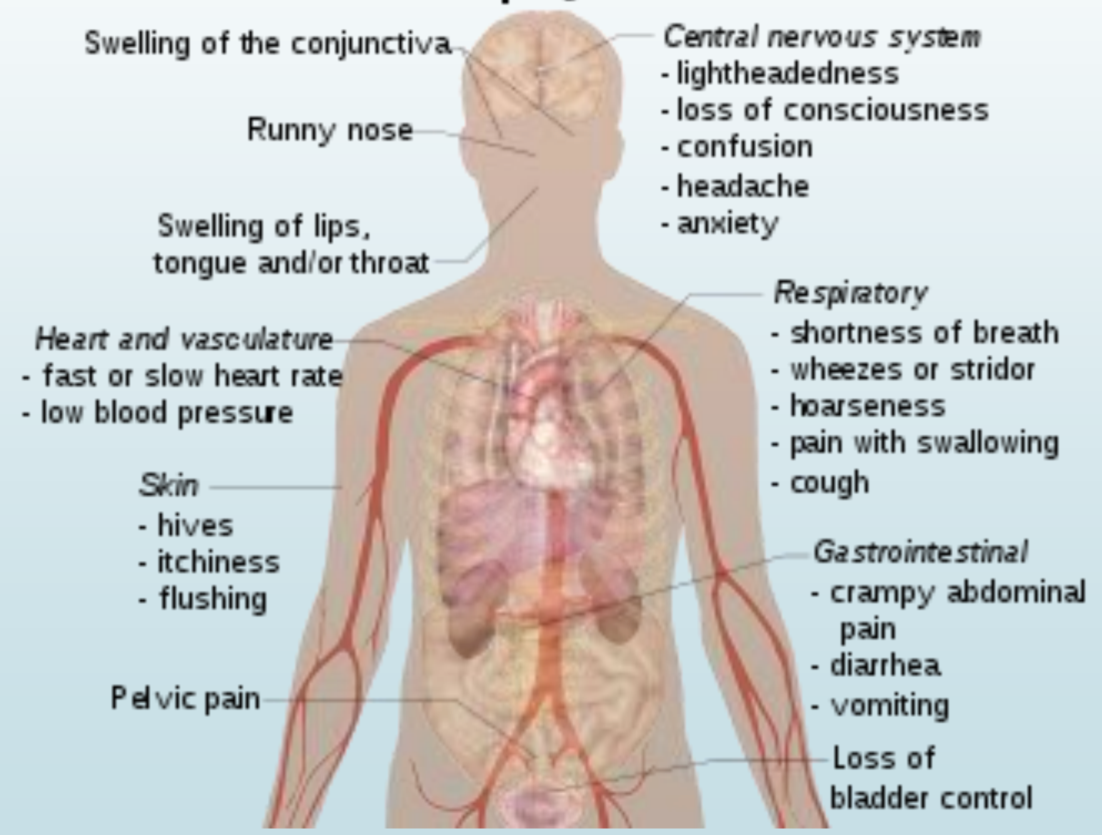
4. Crush ammonia ampule under nose, administer O_2.
5. Monitor vital signs.
6. Have patient escorted home.
7. Plan anxiety control measures during future dental care.

Hypersensitivity and anaphylactic shock



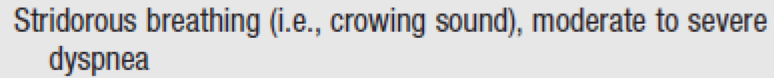
Angio edema





Signs and symptoms of
anaphylaxis
Swelling of the conjunctiva
Runny nose
Swelling of lips, tongue and/or throat
Heart and vasculature
- fast or slow heart rate
- low blood pressure
Skin
- hives
- itchiness
- flushing
Pelvic pain
Central nervous system
- lightheadedness
- loss of consciousness
- confusion
- headache
- anxiety
Respiratory
- shortness of breath
- wheezes or stridor
- hoarseness
- pain with swallowing
- cough
Gastrointestinal
- crampy abdominal pain
- diarrhea
- vomiting
Loss of bladder control

Manifestations	Management
Skin Signs	
Delayed-onset skin signs: erythema, urticaria, pruritus, angioedema	1. Stop administration of all drugs presently in use. 2. Administer IV or IM Benadryl[a] 50 mg or Chlor-Trimeton[b] 10 mg. 3. Refer to physician. 4. Prescribe oral antihistamine such as Benadryl 50 mg q6h or Chlor-Trimeton 10 mg q6h. 5. Can prescribe tapering dose of an oral corticosteroid (prednisone or methylprednisolone dose pack).
Immediate-onset skin signs: erythema, urticaria, pruritus	1. Stop administration of all drugs presently in use. 2. Administer antihistamine IM or IV Benadryl 50 mg or Chlor-Trimeton 10 mg. 3. Consider administering 100 mg of hydrocortisone, 8 mg of dexamethasone, or 125 mg of methylprednisolone. 4. Monitor vital signs. 5. Consult patient's physician. 6. Observe in office for 1 hour. 7. Prescribe Benadryl 50 mg q6h or Chlor-Trimeton 10 mg q6h. 8. Prescribe tapering dose of an oral corticosteroid.
Respiratory Tract Signs With or Without Cardiovascular or Skin Signs	
Wheezing, mild dyspnea	1. Stop administration of all drugs presently in use. 2. Place patient in sitting position. 3. Administer 2 puffs of inhaled β-agonist, repeat up to 3 doses if no cardiovascular compromise is present. 4. Consider administering 100 mg of hydrocortisone, 8 mg of dexamethasone, or 125 mg of methylprednisolone. 5. Administer epinephrine if signs of cardiovascular compromise or airway obstruction are present.[c] 6. Provide IV access. 7. Consult patient's physician or emergency department physician. 8. Observe in office for at least 1 hour. 9. Prescribe antihistamine.



Stridorous breathing (i.e., crowing sound), moderate to severe dyspnea	1. Stop administration of all drugs presently in use. 2. Sit the patient upright, and have someone summon medical assistance. 3. Administer epinephrine.[a] 4. Give oxygen (6 L/min) by facemask or nasally. 5. Monitor vital signs frequently. 6. Administer antihistamine and corticosteroid. 7. Provide IV access; if signs worsen, treat as for anaphylaxis. 8. Consult patient's physician or emergency room physician; prepare for transport to emergency department if signs do not improve rapidly.
Anaphylaxis (with or without skin signs): malaise, wheezing, stridor, cyanosis, total airway obstruction, nausea and vomiting, abdominal cramps, urinary incontinence, tachycardia, hypotension, cardiac dysrhythmias, cardiac arrest	1. Stop administration of all drugs. 2. Position patient supine on back board or on floor and have someone summon assistance. 3. Administer epinephrine.[a] 4. Initiate basic life support and monitor vital signs. 5. Consider cricothyrotomy if trained to perform and if laryngospasm is not quickly relieved with epinephrine. 6. Provide IV access. 7. Give oxygen at 6 L/min. 8. Administer antihistamine IV or IM. 9. Prepare for transport.

[a]Brand of diphenhydramine.
[b]Brand of chlorpheniramine.
[c]As described in "Immediate Onset" section.
IM, Intramuscular; *IV*, intravenous; *SC*, subcutaneous.

Postural Hypotension

- Predisposing factor
- Administration and ingestion of drugs[7,8]
- n Prolonged period of recumbency or convalescence[9]
- n Inadequate postural reflex
- n Late-stage pregnancy[10]
- n Advanced age[11]
- n Venous defects in the legs (e.g., varicose veins)
- n Recovery from sympathectomy for “essential”
- Hypertension drugs (common mistake Dentanest)
- n Addison’s disease
- n Physical exhaustion[12] and starvation

Postural Hypotension

- Vasodilators
- α-adrenergic receptor antagonists
- β-adrenergic receptor antagonists
- Central α-adrenergic receptor agonists:
- Clonidine, guanabenz, guanfacine
- Cyclic antidepressants
- Phenothiazines

- P C A B D

1. Terminate all dental treatment.
2. Place the patient in the supine position with legs raised above the level of the head.
3. Monitor the vital signs.
4. Once blood pressure improves, slowly return the patient to the sitting position.
5. Discharge the patient home once the vital signs are normal and stable.
6. Obtain medical consultation before any further dental care.

Angina pectoralis and cardiac arrest

- *stable angina Vs. unstable angina*
  - *Prinzmetal's angina (rest)*
- *Pre – stroke*
- *Cut of point (2-3 per week)*
  - *Premedication NG 5 min before treatment*
- *Medical consultation*
  - *Gingival hyperplasia (calcium channel blockers ex.* **mlodipine**, verapamil, **nicardipine**, nitrendipine, oxodipine, **felodipine** and **diltiazem)***)*
- *Base line Vital sign*

Differential diagnosis of chest pain

Noncardiac chest pain	Cardiac chest pain
Sharp, knifelike	Dull
Stabbing sensation	Aching
Aggravated by movement	Heaviness, oppressive feeling
Present only with breathing	Present at all times
Localized (patient able to point to one spot)	Generalized (occurs over a wider area)

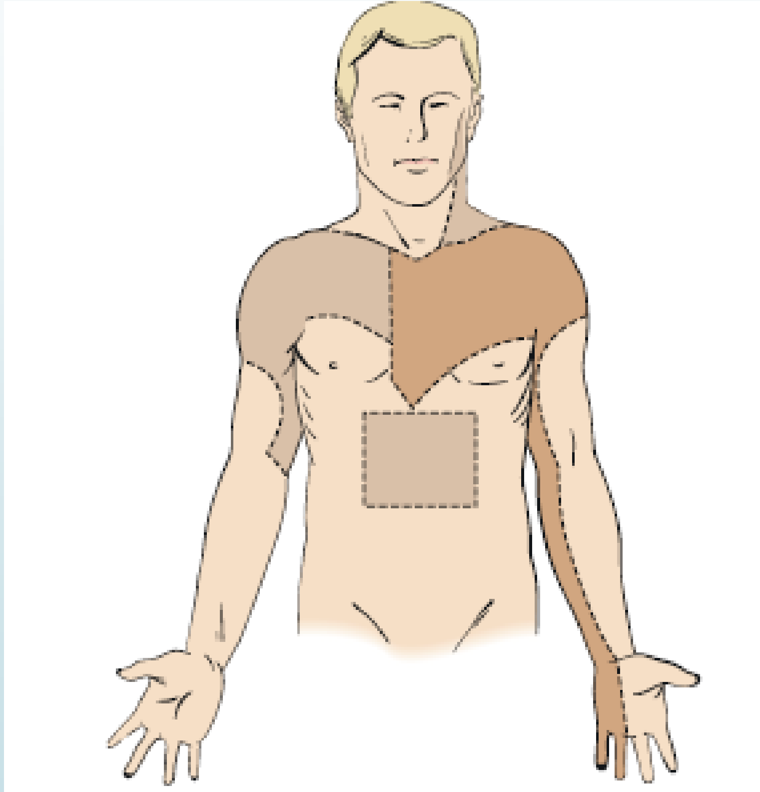
BOX 29-1 Causes of chest pain

CARDIAC RELATED

Angina pectoris
Myocardial infarction

NOT CARDIAC RELATED

Muscle strain (musculoskeletal)
Pericarditis
Esophagitis
Hiatal hernia
Pulmonary embolism
Dissecting aortic aneurysm
Acute indigestion
Intestinal “gas”



management

- P C A B
  - Up to 3 dose of NG pearl (note severe induced hypotension can amplify hearth ischemia leading to cardiac arrest)

1. Terminate all dental treatment.
2. Position patient in semi-reclined posture.
3. Give nitroglycerin (about 0.4 mg) tablet or spray.
4. Administer oxygen.
5. Check pulse and blood pressure.*

Discomfort relieved

6. Assume angina pectoris is present.
7. Slowly taper oxygen over 5 minutes.
8. Modify dental treatment to prevent recurrence.

Discomfort continues 3 minutes after TNG

6. Give second TNG dose.
7. Monitor vital signs.

Discomfort continues 3 minutes after second TNG

8. Give third TNG dose.
9. Monitor vital signs.
10. Have someone summon medical assistance.

Discomfort relieved

11. Refer patient for medical evaluation before further dental care.

Discomfort continues 3 minutes after third TNG

12. Assume myocardial infarction is in progress.
13. Administer 352 mg of aspirin.
14. Start intravenous line with drip of a crystalloid solution at 30 mL/h.
15. If severe discomfort, can titrate morphine sulfate 2 mg subcutaneously or intravenously every 3 minutes until relief is obtained.*
16. Prepare for transport to emergency care facility, administer basic life support if necessary.

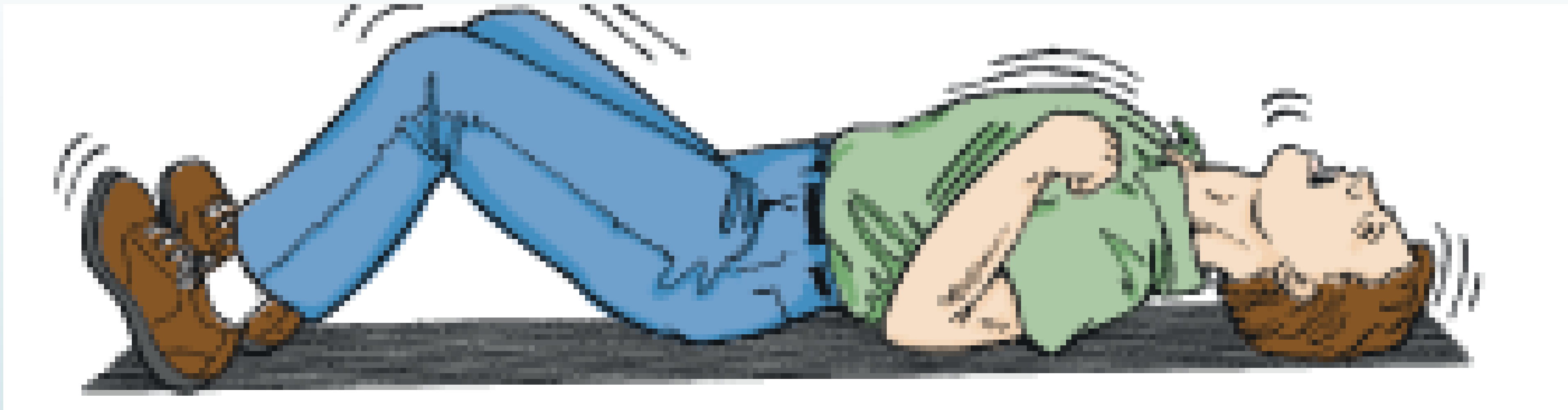
seizure

Childhood and adolescence	Early adult life	Late adult life
No known cause	Trauma	Vascular disease
Infection	Tumor	Trauma
Trauma	No known cause	Tumor
Cerebral degenerative disease	Birth injury Infection Cerebral degenerative disease	Cerebral degenerative disease

- Anxiety control / drug
- Fatigue hypoglycemia

- Risk: status epilepticus

- ***<u>IV line</u>***



Manifestations

Isolated, brief seizure

Tonic-clonic movements of trunk and extremities, loss of consciousness, vomiting, airway obstruction, loss of urinary and anal sphincter control

Acute management

1. Terminate all dental treatment.
2. Place in supine position.
3. Protect from nearby objects.

After seizure

Patient is unconscious

4. Have someone summon medical assistance.
5. Place patient on side and suction airway.
6. Monitor vital signs.
7. Initiate basic life support (BLS), if necessary.
8. Administer oxygen.
9. Transport to emergency care facility.

Patient is conscious

4. Suction airway, if necessary.
5. Monitor vital signs.
6. Administer oxygen.
7. Consult physician.
8. Observe patient in office for 1 hour.
9. Have patient escorted home.

Repeated or sustained seizure (status epilepticus)

(as above)

1. Administer diazepam 5 mg/min intravenously (IV) up to 10 mg or midazolam 3 mg/min IV or intramuscularly up to 6 mg* titrated until seizures stop.
2. Have someone summon medical assistance.
3. Protect patient from nearby objects.

Once seizure ceases

4. Place patient on side and suction airway.
5. Monitor vital signs.
6. Initiate BLS, if necessary.
7. Administer oxygen.
8. Transport to emergency care facility.

Hyper ventilation

• BOX 2.7 Manifestations of Hyperventilation Syndrome

Neurologic
- Dizziness
- Syncope
- Tingling or numbness of fingers, toes, or lips

Respiratory
- Chest pain
- Feeling of shortness of breath
- Increased rate and depth of breaths
- Xerostomia

Cardiac
- Palpitations
- Tachycardia

Musculoskeletal
- Muscle spasm
- Myalgia
- Tetany
- Tremor

Psychological
- Extreme anxiety

• BOX 2.8 Management of Hyperventilation Syndrome

1. Terminate all dental treatment, and remove foreign bodies from mouth.
2. Position patient in chair in almost fully upright position.
3. Attempt to calm patient verbally.
4. Have patient breathe carbon dioxide–enriched air, such as in and out of a small bag or cupped hands.
5. If symptoms persist or worsen, administer diazepam 10 mg intramuscularly or titrate slowly intravenously until anxiety is relieved, or administer midazolam 5 mg intramuscularly or titrate slowly intravenously until anxiety is relieved.
6. Monitor the vital signs.
7. Perform all further dental surgery using anxiety-reducing measures.

asthma

1. Defer dental treatment until the asthma is well controlled and the patient has no signs of a respiratory tract infection.
2. Listen to the chest with a stethoscope to detect any wheezing before major oral surgical procedures or sedation.
3. Use an anxiety-reduction protocol, including nitrous oxide, but avoid the use of respiratory depressants.
4. Consult the patient's physician about possible preoperative use of cromolyn sodium.
5. If the patient is or has been chronically taking corticosteroids, provide prophylaxis for adrenal insufficiency.
6. Keep a bronchodilator-containing inhaler easily accessible.
7. Avoid the use of nonsteroidal antiinflammatory drugs in susceptible patients.

asthma

Patient with shortness of breath or wheezing

1. Terminate all dental treatment.
2. Position patient in fully sitting posture.
3. Administer bronchodilator by spray (metaproterenol, isoproterenol, epinephrine).
4. Administer oxygen.
5. Monitor vital signs.

Signs and symptoms relieved

6. Monitor during recovery in office.
7. Discontinue any intravenous (IV) lines.
8. Provide no further dental treatment until patient's physician approves.

Signs and symptoms continue

6. Give epinephrine 0.3 mL of 1:1000 intramuscularly or subcutaneously.
7. Start IV line and drip of crystalloid solution (30 mL/h).
8. Monitor vital signs.

Signs and symptoms not relieved

9. Call for medical assistance.
10. Start theophylline 250 mg IV given over 10 minutes and cortisone 100 mg IV (or equivalent).
11. Prepare for transport to emergency care facility.

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(Epinephrine) Auto-Injectors 0.3 mg
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For Allergic Emergencies (Anaphylaxis) 0.3 mg each
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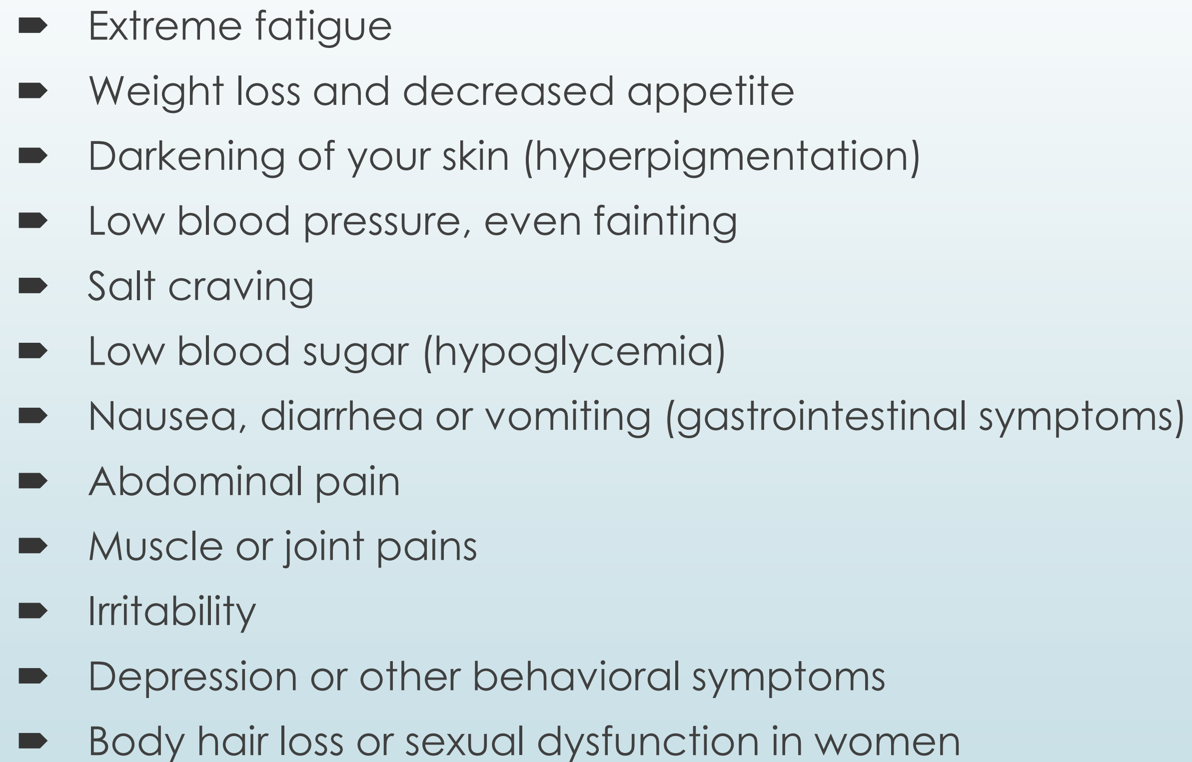
OPEN IMMEDIATELY
EpiPen® Center for Anaphylactic Support™
FREE MEMBERSHIP—Details Inside
BECAUSE EVERY SECOND COUNTS

- Corticosteroid induced
  - 20 mgr. prednisolone 6-12 mounts
- Adisson’s disease



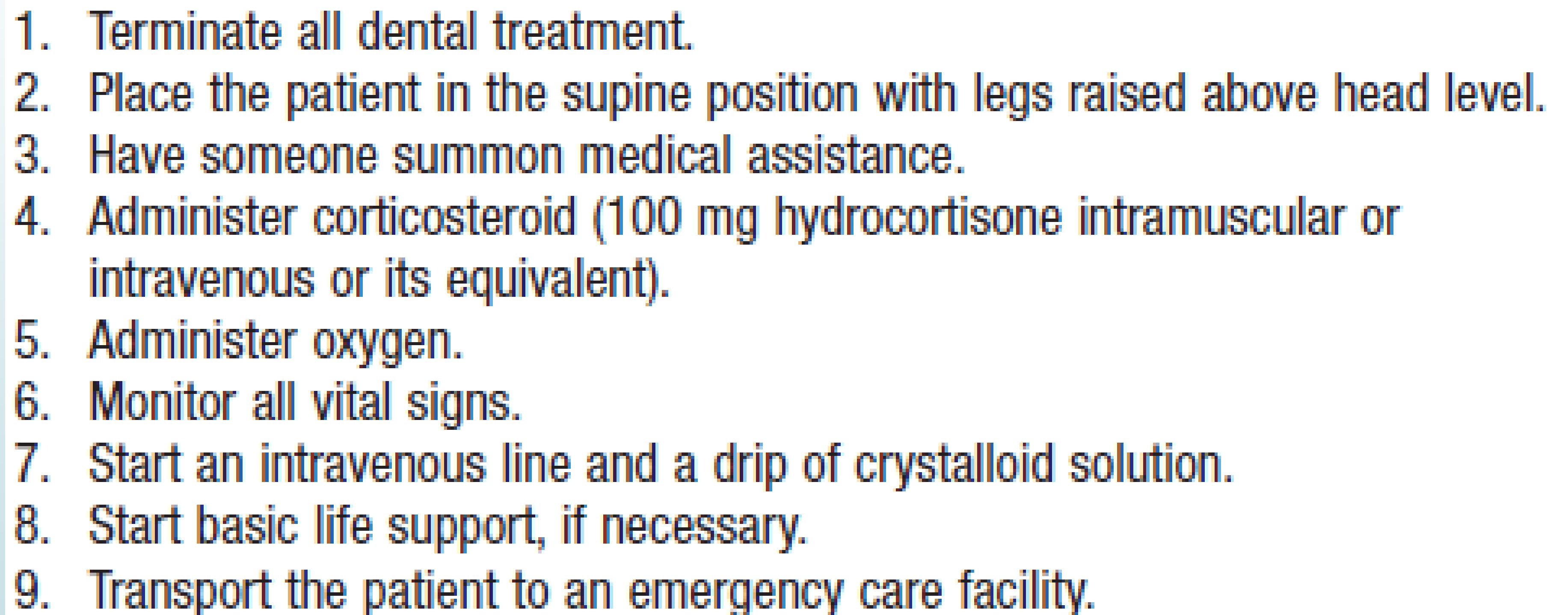
- Extreme fatigue
- Weight loss and decreased appetite
- Darkening of your skin (hyperpigmentation)
- Low blood pressure, even fainting
- Salt craving
- Low blood sugar (hypoglycemia)
- Nausea, diarrhea or vomiting (gastrointestinal symptoms)
- Abdominal pain
- Muscle or joint pains
- Irritability
- Depression or other behavioral symptoms
- Body hair loss or sexual dysfunction in women

If the patient is currently taking corticosteroids:

1. Use an anxiety-reduction protocol.
2. Monitor pulse and blood pressure before, during, and after surgery.
3. Instruct the patient to double the usual daily dose on the day before, day of, and day after surgery.
4. On the second postsurgical day, advise the patient to return to a usual steroid dose.

If the patient is not currently taking steroids but has received at least 20 mg of hydrocortisone (cortisol or equivalent) for more than 2 weeks within the past year:

1. Use an anxiety-reduction protocol.
2. Monitor pulse and blood pressure before, during, and after surgery.
3. Instruct the patient to take 60 mg of hydrocortisone (or equivalent) the day before and the morning of surgery (or the dentist should administer 60 mg of hydrocortisone or equivalent intramuscularly or intravenously before complex surgery).
4. On the first 2 postsurgical days, the dose should be dropped to 40 mg and dropped to 20 mg for 3 days thereafter. The clinician can cease administration of supplemental steroids 6 days after surgery.


1. Terminate all dental treatment.
2. Place the patient in the supine position with legs raised above head level.
3. Have someone summon medical assistance.
4. Administer corticosteroid (100 mg hydrocortisone intramuscular or intravenous or its equivalent).
5. Administer oxygen.
6. Monitor all vital signs.
7. Start an intravenous line and a drip of crystalloid solution.
8. Start basic life support, if necessary.
9. Transport the patient to an emergency care facility.

Diabetes mellitus

BOX 17-7 Clinical manifestations of hypoglycemia

EARLY STAGE—MILD REACTION
Diminished cerebral function
Changes in mood
Decreased spontaneity
Hunger
Nausea

MORE SEVERE STAGE
Sweating
Tachycardia
Piloerection
Increased anxiety
Bizarre behavioral patterns
Belligerence
Poor judgment
Uncooperativeness

LATER SEVERE STAGE
Unconsciousness
Seizure activity
Hypotension
Hypothermia

Diabetes mellitus

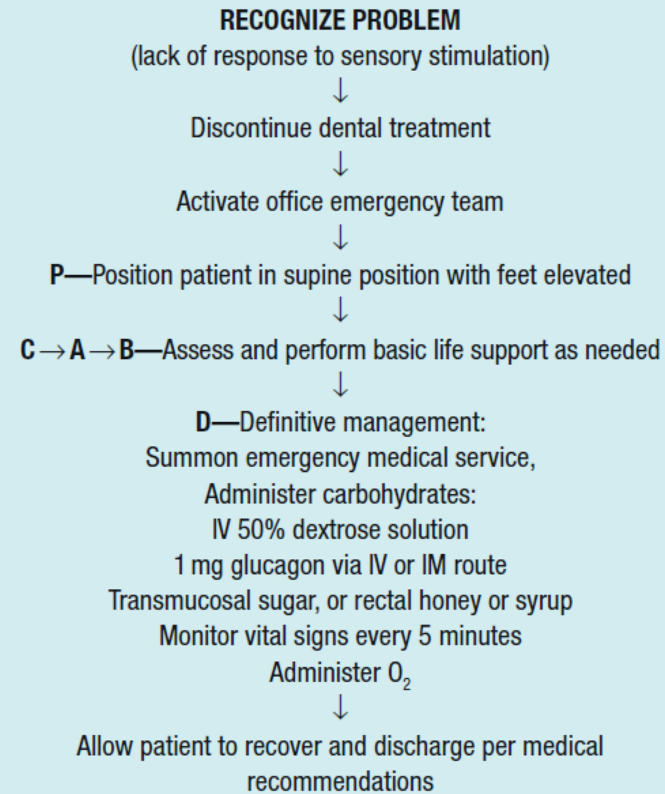
Insulin-Dependent (Type 1) Diabetes

1. Defer surgery until the diabetes is well controlled; consult the patient's physician.
2. Schedule an early-morning appointment; avoid lengthy appointments.
3. Use an anxiety-reduction protocol, but avoid deep sedation techniques in outpatients.
4. Monitor pulse, respiration, and blood pressure before, during, and after surgery.
5. Maintain verbal contact with the patient during surgery.
6. If the patient must not eat or drink before oral surgery and will have difficulty eating after surgery, instruct him or her not to take the usual dose of regular or NPH insulin; start intravenous administration of a 5% dextrose in water drip at 150 mL/h.
7. If allowed, have the patient eat a normal breakfast before surgery and take the usual dose of regular insulin but only half the dose of NPH insulin.
8. Advise patients not to resume normal insulin doses until they are able to return to usual level of caloric intake and activity level.
9. Consult the physician if any questions concerning modification of the insulin regimen arise.
10. Watch for signs of hypoglycemia.
11. Treat infections aggressively.

Non–Insulin-Dependent (Type 2) Diabetes

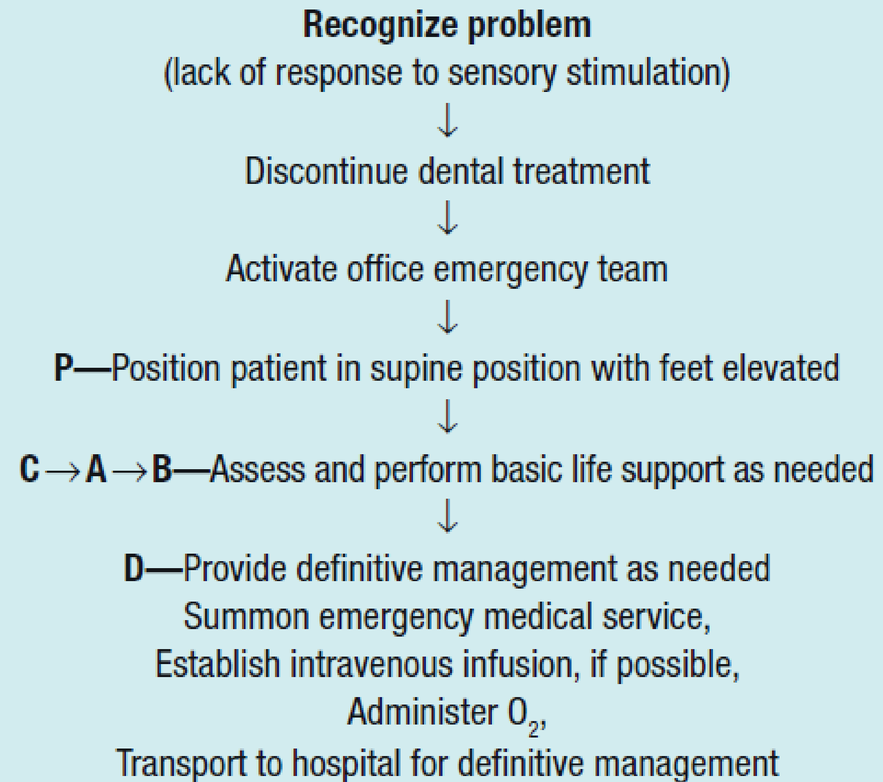
1. Defer surgery until the diabetes is well controlled.
2. Schedule an early-morning appointment; avoid lengthy appointments.
3. Use an anxiety-reduction protocol.
4. Monitor pulse, respiration, and blood pressure before, during, and after surgery.
5. Maintain verbal contact with the patient during surgery.
6. If the patient must not eat or drink before oral surgery and will have difficulty eating after surgery, instruct him or her to skip any oral hypoglycemic medications that day.
7. If the patient can eat before and after surgery, instruct him or her to eat a normal breakfast and to take the usual dose of hypoglycemic agent.
8. Watch for signs of hypoglycemia.
9. Treat infections aggressively.

management


BOX 17-10 Management of hypoglycemia—unconscious patient

RECOGNIZE PROBLEM
(lack of response to sensory stimulation)
↓
Discontinue dental treatment
↓
Activate office emergency team
↓
P—Position patient in supine position with feet elevated
↓
C→A→B—Assess and perform basic life support as needed
↓
D—Definitive management:
Summon emergency medical service,
Administer carbohydrates:
IV 50% dextrose solution
1 mg glucagon via IV or IM route
Transmucosal sugar, or rectal honey or syrup
Monitor vital signs every 5 minutes
Administer O_2
↓
Allow patient to recover and discharge per medical recommendations

management



BOX 17-8 Management of hyperglycemia—unconscious patient

Recognize problem
(lack of response to sensory stimulation)
↓
Discontinue dental treatment
↓
Activate office emergency team
↓
P—Position patient in supine position with feet elevated
↓
C→**A**→**B**—Assess and perform basic life support as needed
↓
D—Provide definitive management as needed
Summon emergency medical service,
Establish intravenous infusion, if possible,
Administer O_2,
Transport to hospital for definitive management

Tank You For Your Attention To This Matter