Department of Anesthesia Techniques
Title of the lecture: - premedication

Dr. Hawraa Diaa & B.M.T Montadher Talib

Premedication

(Practical Anesthesia)

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By:

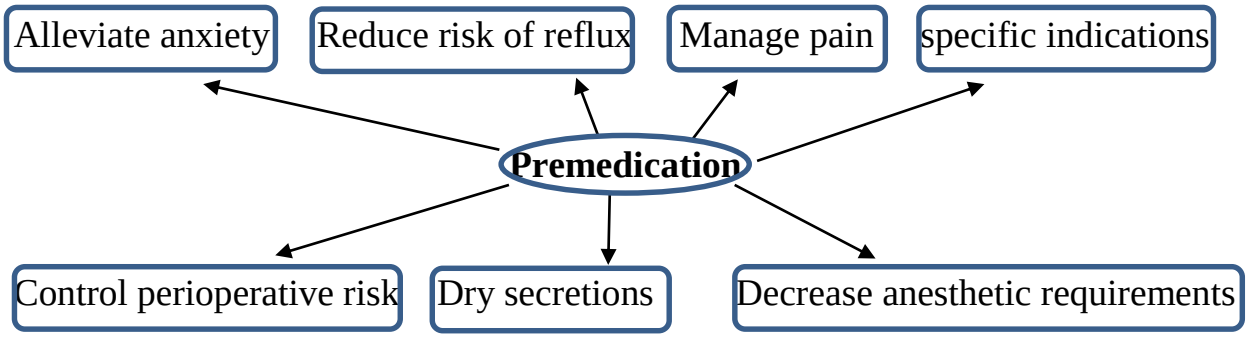
Dr. hawraa Diaa **B.M.T. Montadher Talib**

Preoperative Medication

A number of medications may be used prior to anesthetic induction to help reduce the patient's anxiety about anesthesia, improve conditions for intubation, reduce complications such as nausea and vomiting, and improve postoperative.

Goals of premedication:

1. Alleviate anxiety, sedation and amnesia. (e.g. midazolam)
2. Reduce risk of reflux. (e.g. Ranitidine, Metoclopramide)
3. Manage pain. (e.g. Paracetamol, Topical lidocaine).
4. Control perioperative risk. (e.g. Beta blockers, Alpha-2 agonists).
5. Dry secretions. (e.g. Glycopyrollate, Atropine).
6. Decrease anesthetic requirements. (e.g. Clonidine).
7. Specific indications. (e.g. prevention of infections with antibiotics).



A. Benzodiazepines: benzodiazepines are useful for producing moderate sedation and reducing anxiety, as well as providing some degree of anterograde amnesia. Midazolam is commonly used, its rapid onset of action (1-2 minutes) and have short half-life (1 to 4 hours).

B. Antihistamines: Diphenhydramine is a histamine-1 antagonist that has sedative, antiemetic, and anticholinergic properties. it is (3-6) half-life long it's to owing premedication, as used rarely hours), which tends to prolong recovery times.

Diphenhydramine, along with a histamine-2 antagonist and steroids, may be given to patients with a history of allergy.

C. Antisialogogues: It is often helpful to administer an anticholinergic agent to reduce upper airway secretions when a fiber-optic assisted tracheal intubation is expected. Glycopyrrolate is a potent antisialagogue and produces less tachycardia compared to scopolamine or atropine. In addition, glycopyrrolate does not cross the blood–brain barrier; therefore, it does not have central nervous system side effects.

D. Antiemetic: selective premedication of patients with a history of postoperative nausea and vomiting (PONV) and those with purpose include serotonin antagonists such as ondansetron, phenothiazine such as meclizine. These drugs are best administered just prior to the end of surgery for optimal onset of action.

Drugs Used to Reduce the Risk of Pulmonary Aspiration		
Drug	Onset	Effect
Antacids (e.g., sodium citrate, aluminum or magnesium hydroxide, calcium carbonate)	15–30 min	increase gastric PH
Histamine-2 receptor Antagonists (e.g., ranitidine, famotidine)	60 min	reduce gastric volume, increase gastric PH
Proton pump inhibitors (e.g., omeprazole, pantoprazole)	30 min	Reduce gastric acid secretion Reduce gastric volume
Prokinetic agents (e.g., metoclopramide)	15–30 min	Increase gastric motility Increase gastric esophageal sphincter tone

Medications should be stopped

A. Stop on the day of surgery:

1. Diuretics
   - ¾ Unless Thiazide for hypertension
   - ¾ Unless severe heart failure
2. Insulin & oral hypoglycemic agents.
3. Vitamins & iron
4. ACEI's (Angiotensin-Converting Enzyme Inhibitors) or ARB's (Angiotensin II Receptor Blockers) - ((individual choice)).
   - ¾ Depends on procedure/ risk of hypotension.
5. Hold sildenafil (Viagra) / tadalafil (Cialis) from night before.

B. Stop 48 hours' pre-operation:

NSAIDs (non-steroidal anti-inflammatory drugs).

C. Stop 4 days' pre-operation:

Warfarin (convert to enoxaparin)

D. Stop 7 days' pre-operation:

- Clopidogrel (plavix, an antiplatelet medication). Aspirin 75 mg usually continued -------- ((check with the consultant)).
- Herbal remedies
- Hormone replacement therapy

Surgery Time

Induction phase ⟶ maintenance phase ⟶ recovery phase

IV drug + inhalation — reversal or antidote