



Interactions in pathologies of the digestive system

peptide ulcer and gastro-oesophageal reflux

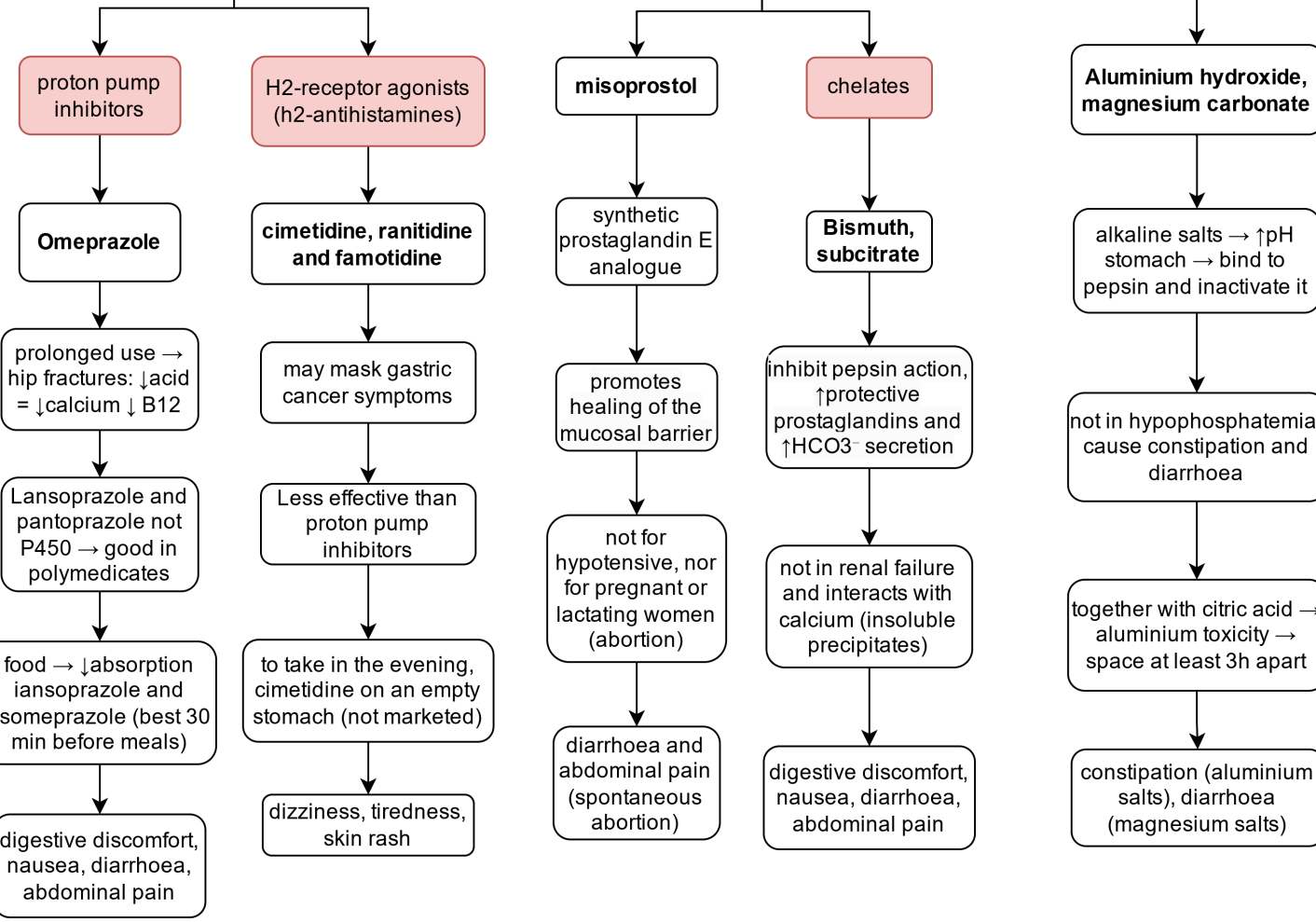
acid secretion controlled by 3 main receptors:
- gastrin (gastrin)
- histamine h2 (histamine)
- muscarinic receptors M1 and M3 (acetylcholine).

targets:
- treat H.pylori infection (if present)
- treat heartburn

reduction of acid secretion:

gastric mucosal enhancers:

antacids:



nausea and vomiting

vomiting is a natural reflex to ingestion of toxic substances, medicines and illnesses

can cause metabolic alkalosis

neural control by:

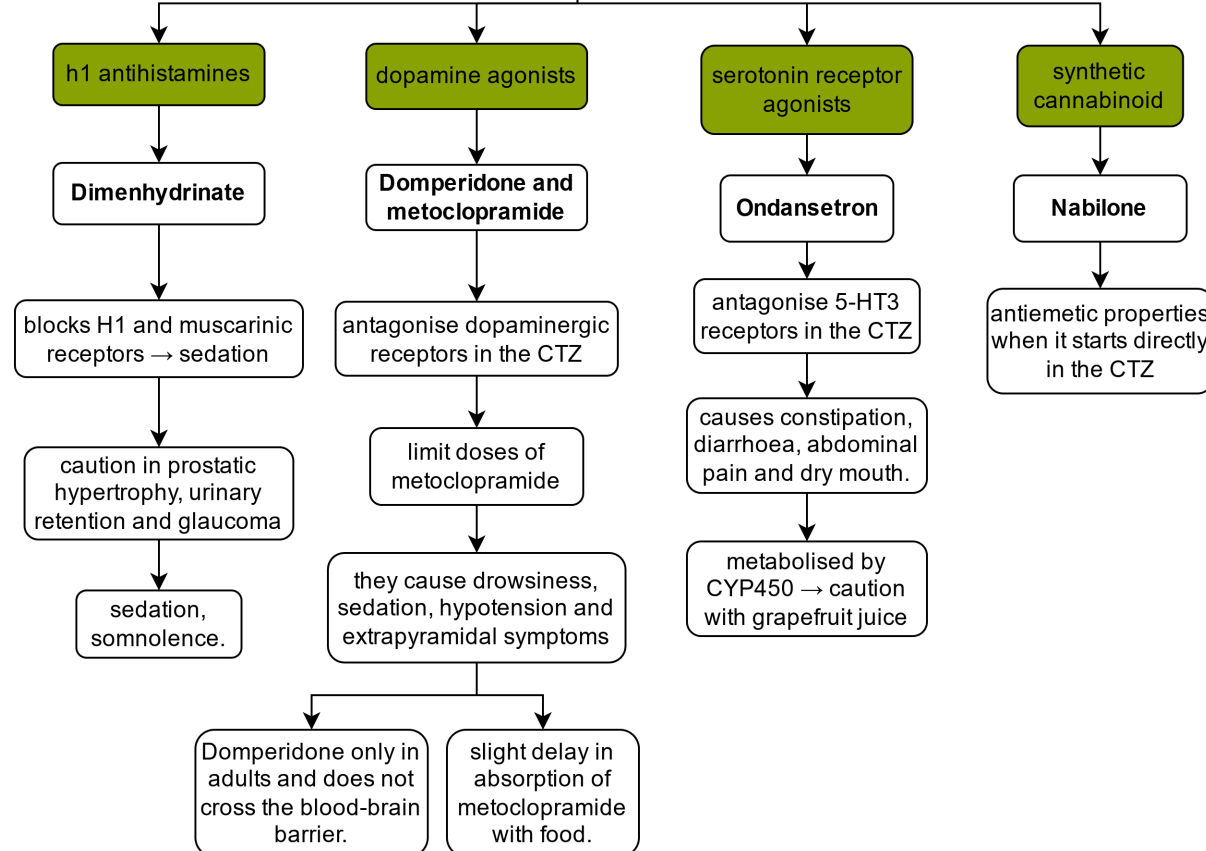
vomiting centre

in the medulla oblongata, stimulated by vestibular, visceral and CTZ stimuli

Chemoreceptor trigger zone (CTZ)

cluster of neurons near the emetic centre, with dopamine and serotonin receptors.

types of drugs



intestinal motility

peristalsis with the aim of transporting, mixing and propelling the contents, in the caudal direction

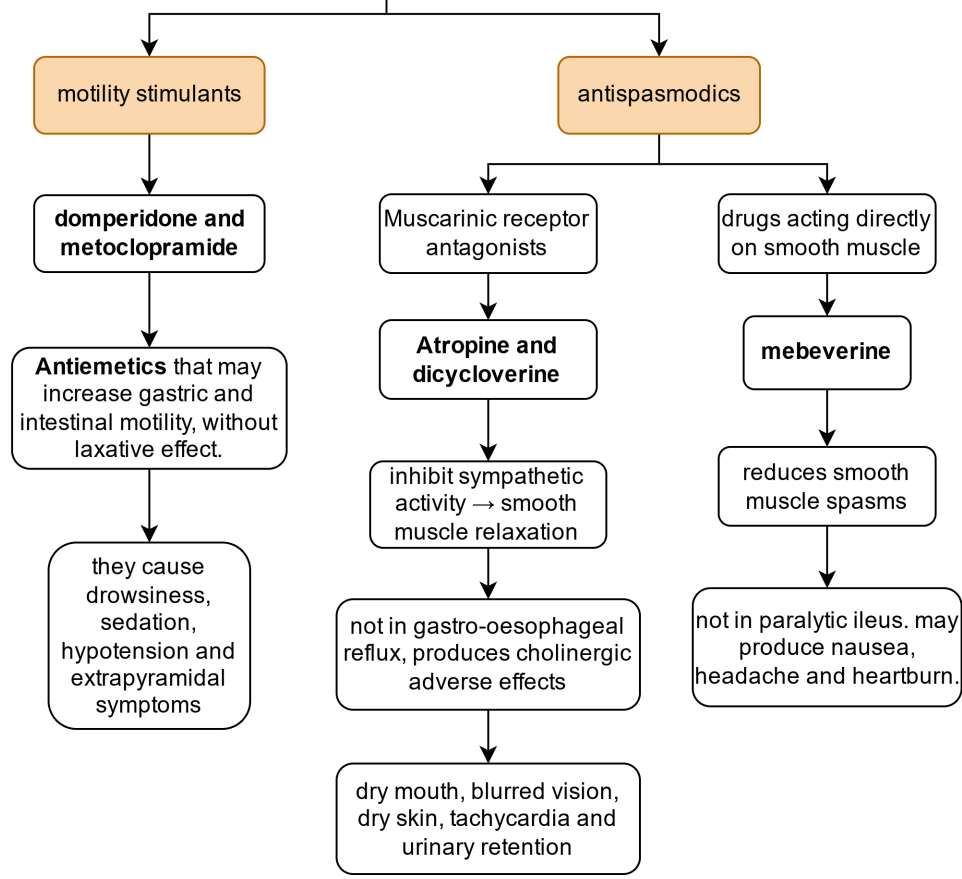
neural control:

myenteric plexus and submucosal plexus (main target of drug treatment)

hormonal control:

endocrine (gastrin) as well as **paracrine** substances (histamine, secretin, CCK and VIP)

drugs:



constipation and diarrhoea

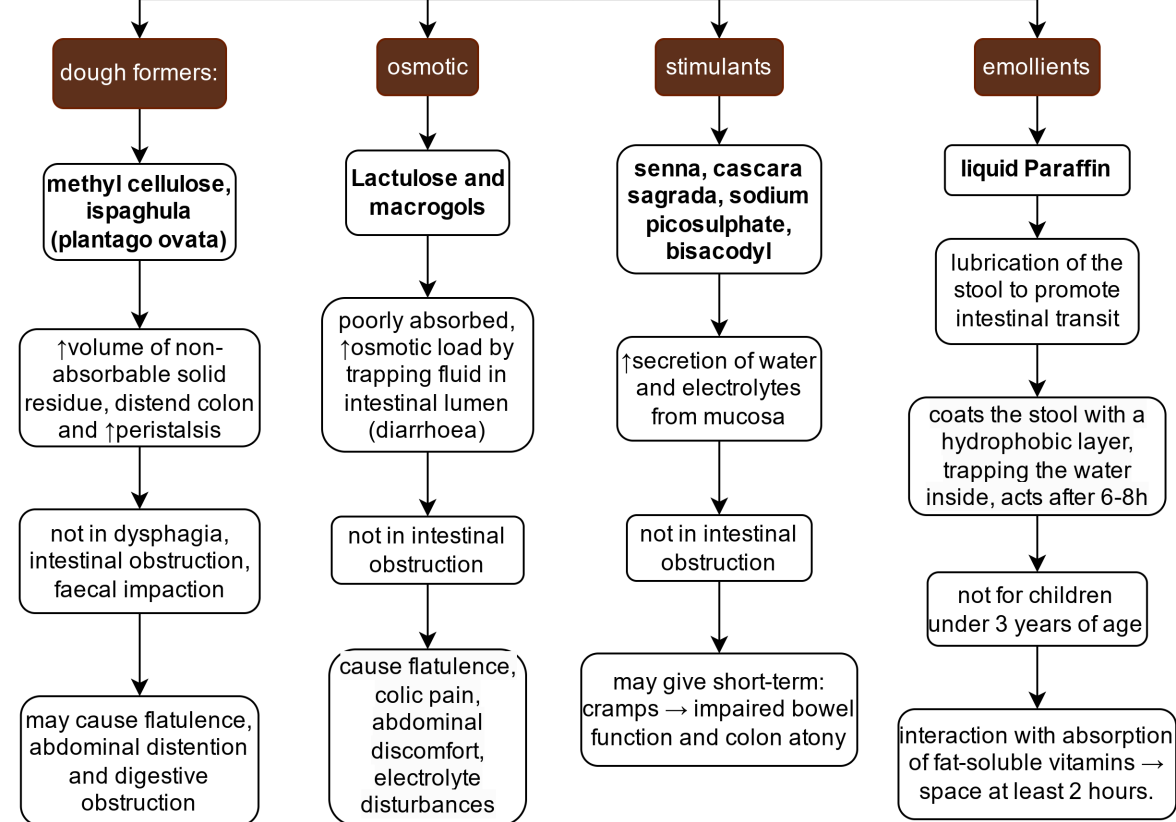
Constipation

laxatives

accelerate intestinal transit time and promote defecation.

relieve constipation and cleanse the bowel

types



Diarrhoea

Frequent, liquid stools. ↑motility ↑secretion ↓absorption of liquid

opiate-type antidiarrhoeals

Loperamide

acts on opioid receptors in the myenteric plexus

↑tonus and rhythmic contraction → ↓propulsive activity

not in acute ulcerative colitis. not recommended in children.

causes nausea, vomiting, abdominal cramps, constipation, drowsiness.

other antidiarrhoeals

chalk and charcoal

act by adsorbing toxins

not in acute diarrhoea

may reduce the absorption of drugs

taken without food