Drugs Affecting the Gastrointestinal System

Antidiarrheals

Diarrhea

- Abnormal frequent passage of loose stools

  or

- Abnormal passage of stools with increased frequency, fluidity, and weight, or with increased stool water excretion

Diarrhea

Acute Diarrhea

- Sudden onset in a previously healthy person
- Lasts from 3 days to 2 weeks
- Self-limiting
- Resolves without sequelae

Diarrhea

Chronic Diarrhea

- Lasts for over 3 to 4 weeks
- Associated with recurring passage of diarrheal stools, fever, loss of appetite, nausea, vomiting, weight loss, and chronic weakness

Causes of Diarrhea

Acute Diarrhea	Chronic Diarrhea
Bacteria	Tumors
Viral	Diabetes
Drug-induced hyperthyroidism	Addison’s disease
Nutritional syndrome	Irritable bowel
Protozoal	

Antidiarrheals: Mechanism of Action

1. Adsorbents

- Coat the walls of the GI tract
- Bind to the causative bacteria or toxin, which are then eliminated through the stool

Examples: bismuth subsalicylate (Pepto-Bismol), kaolin-pectin, activated charcoal, attapulgite (Kaopectate)

Antidiarrheals: Mechanism of Action

2. Anticholinergics

- Decrease intestinal muscle tone and peristalsis of GI tract
- Result: slowing the movement of fecal matter through the GI tract

Examples: belladonna alkaloids (Donnatal), atropine, hyoscyamine

Antidiarrheals: Mechanism of Action

3. Intestinal Flora Modifiers

- Bacterial cultures of Lactobacillus organisms work by:
  - Supplying missing bacteria to the GI tract
  - Suppressing the growth of diarrhea-causing bacteria

  Examples: Lactobacillus acidophilus (Lactinex)

Antidiarrheals: Mechanism of Action

4. Opiates

- Decrease bowel motility and relieve rectal spasms
- Decrease transit time through the bowel, allowing more time for water and electrolytes to be absorbed

Examples: paregoric, opium tincture, codeine, loperamide, diphenoxylate

Antidiarrheal Agents: Side Effects

Anticholinergics

- Urinary retention, hesitancy, impotence
- Headache, dizziness, confusion, anxiety, drowsiness
- Dry skin, rash, flushing
- Blurred vision, photophobia, increased intraocular pressure

Antidiarrheal Agents: Side Effects

Opiates

- Drowsiness, sedation, dizziness, lethargy
- Nausea, vomiting, anorexia, constipation
- Respiratory depression
- Bradycardia, palpitations, hypotension
- Urinary retention
- Flushing, rash, urticaria

Antidiarrheal Agents: Interactions

- Adsorbents decrease the absorption of many agents, including digoxin, clindamycin, quinidine, and hypoglycemic agents
- Adsorbents cause increased bleeding times when given with anticoagulants
- Antacids can decrease effects of anticholinergic antidiarrheal agents

Antidiarrheal Agents: Nursing Implications

- Use adsorbents carefully in elderly patients or those with decreased bleeding time, clotting disorders, recent bowel surgery, or confusion.
- Anticholinergics should not be administered to patients with a history of glaucoma, BPH, urinary retention, recent bladder surgery, cardiac problems, or myasthenia gravis.

Antidiarrheal Agents: Nursing Implications

- Teach patients to take medications exactly as prescribed and to be aware of their fluid intake and dietary changes.
- Assess fluid volume status; intake and output; and mucous membranes before, during, and after initiation of treatment.

Antidiarrheal Agents: Nursing Implications

- Teach patients to notify their physician immediately if symptoms persist.

- Monitor for therapeutic effect.