How do they work? “Action”

Exert a topical anti-inflammatory effect in the bowel. The exact mechanism of action of these drugs is unknown.

What are they used for? “Indications”

The aminosalicylates are used to treat Crohn’s disease and ulcerative colitis as well as other inflammatory diseases.

Adverse reactions

- Abdominal pain
- Nausea
- Diarrhea
- Headache
- Dizziness
- Fever
- Weakness.

Caution

Aminosalicylates are pregnancy category B drugs (except olsalazine, which is in pregnancy category C); all are used with caution during pregnancy and lactation (safety has not been established). (Ford 436)

Interactions

- Digoxin: Reduced absorption of digoxin
- Methotrexate: Increased risk of immunosuppression
- Oral hypoglycemic drugs: Increased blood glucose level
- Warfarin: Increased risk of bleeding

Nursing management

- Review the patient’s chart for the course of treatment and find the reason for administration of the prescribed drug
- Question the patient regarding the type and intensity of symptoms (e.g., pain, discomfort, diarrhea, or constipation) to provide a baseline for evaluation of the effectiveness of drug therapy. (Ford 439)
- Assess for relief of symptoms
- Report abdominal distention, fever, or abdominal pain
- If diarrhea is chronic encourage increased fluid intake such as, weak tea, water, bullion, or drinks that have added electrolytes (pedialyte, gatorade)
- Monitor fluid intake & output

Herbal considerations

Chamomile has several uses in traditional herbal therapy, including as a mild sedative and for treatment of digestive upsets, menstrual cramps, and stomach ulcers. It has been used topically for skin irritation and inflammation. Chamomile is on the U.S. Food and Drug Administration (FDA) list of herbs generally recognized as safe. It is one of the most popular teas in Europe. When used as an infusion, it appears to produce an antispasmodic effect on the smooth muscle of the GI tract and to protect against the development of stomach ulcers. Although the herb is generally safe and nontoxic, the infusion is prepared from the pollen-filled flower heads and has resulted in mild symptoms of contact dermatitis to severe anaphylactic reactions in individuals hypersensitive to ragweed, asters, and chrysanthemums (DerMarderosian, 2003). (Ford 436)

Nclex tip

Hypoactive bowel sounds in severe cases of obstipation (liquid stool leaked around the fecal mass, presenting as loose stool) are evidence that the patient is constipated, which would indicate very different drug therapy. (Ford 439)

<table>
<thead>
<tr>
<th>Generic</th>
<th>Trade</th>
<th>Use</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balsalazide</td>
<td>colazal</td>
<td>Treats active ulcerative colitis</td>
<td>2250 mg orally TID for 8 wk</td>
</tr>
<tr>
<td>Mesalazine</td>
<td>Asacol, Pentasa,</td>
<td>Treats active ulcerative colitis, proctosigmoiditis, proctitis</td>
<td>800–1000 mg orally TID or QID Suspension enema: 4 g daily</td>
</tr>
<tr>
<td>Olsalazine</td>
<td>dipentum</td>
<td>Maintenance and remission of ulcerative colitis</td>
<td>1 g/day orally in two divided doses</td>
</tr>
<tr>
<td>Sulfasalazine</td>
<td>Azulfidine</td>
<td>Ulcerative colitis, rheumatoid arthritis</td>
<td>Initial: 3–4 g/day orally in divided doses Maintenance: 2 g orally QID</td>
</tr>
</tbody>
</table>
**How do they work?**

_**“Action”**_

Difenoxin (Motofen) and diphenoxylate (Lomotil) are chemically related to opioid drugs; therefore, they decrease intestinal peristalsis (Ford 436). Loperamide (Imodium) acts directly on the muscle wall of the bowel to slow motility and is not related to the opioids. (Ford 437)

**What are they used for?**

_**“Indications”**_

- **Loperamide:** Chronic diarrhea associated with irritable bowel syndrome
- **Difenoxin & diphenoxylate:** Diarrhea

**Adverse reactions**

- Anorexia, nausea, vomiting, and constipation
- Abdominal discomfort, pain, and distention
- Dizziness, drowsiness, and headache
- Sedation and euphoria

**Contraindications**

- Known hypersensitivity
- In patients whose diarrhea is associated with organisms that can harm the intestinal mucosa (Escherichia coli, Salmonella and Shigella spp.) (Ford 437)
- Pseudomembranous colitis
- Abdominal pain of unknown origin
- Obstructive jaundice
- Antidiarrheal drugs are contraindicated in children younger than 2 years of age.

**Interactions**

- Antihistamines, opioids, sedatives, or hypnotics: Increased risk of central nervous system (CNS) depression
- Antihistamines and general antidepressants: Increased cholinergic blocking adverse reactions
- Monoamine oxidase inhibitor (MAOI): Increased risk of hypertensive crisis

**Caution**

- Severe hepatic impairment
- Pregnancy category C drugs and should be used cautiously during pregnancy and lactation.
- Loperamide is a pregnancy category B drug but is not recommended for use during pregnancy and lactation.

**Nursing Management**

- Review the patient’s chart for the course of treatment and find the reason for administration of the prescribed drug.
- Question the patient regarding the type and intensity of symptoms (e.g., pain, discomfort, diarrhea, or constipation) to provide a baseline for evaluation of the effectiveness of drug therapy. (Ford 439)
- Assess for relief of symptoms.
- Monitor vitals
- Report abdominal distention, fever, or abdominal pain.
- If diarrhea is chronic encourage increased fluid intake such as weak tea, water, bullion, or drinks that have added electrolytes (pedialyte, gatorade)
- Monitor fluid intake & output

**NCLEX TIP**

If diarrhea persists for more than 2 days when over-the-counter (OTC) antidiarrheal drugs are being used, the patient should discontinue use and seek treatment from the primary health care provider. (Ford 437)

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**Generic** | **Trade** | **Use** | **Dose**
---|---|---|---
Bismuth | Pepto bismol, bismatrol | H. pylori infection with duodenal ulcer, nausea, vomiting diarrhea, abdominal cramps | 2 tablets or 30 mL orally every 30 min to 1 hr, up to 8 doses in 24 hr
Difenoxin with atropine | Motofen | Relieves symptoms of acute diarrhea | Initial dose: 2 tablets orally, then 1 tablet after each loose stool (not to exceed 8 tablets/day)
Diphenoxylate with atropine | Lomotil, lonox | Relieves symptoms of acute diarrhea | 5 mg orally QID
Loperamide | Imodium, kaopectate, maalox | Relieves symptoms of acute diarrhea | Initial dose 4 mg orally; then 2 mg after each loose stool (not to exceed 16 mg/day)
Theophrine | Paregoric | Severe diarrhea | 0.6 mL orally QID
HOW DO THEY WORK?

**ACTION**

Work by reducing flatus in the GI tract via expulsion such as; belching or passing gas. Simethicone also has a defoaming agent that disperses and prevents the formation of gas pockets.

WHAT ARE THEY USED FOR?

**INDICATIONS**

- Post op gas distention & air swallowing
- Dyspepsia
- Peptic ulcer
- Irritable bowel syndrome
- Diverticulosis
- Charcoal may be used to prevent pruritus associated with kidney dialysis treatment & as an antidote in poisoning

ADVERSE REACTIONS

No adverse reactions have been reported.

NURSING MANAGEMENT

- **STOP**
  - Known hypersensitivity

- **CAUTION**
  - Pregnancy category C

- **CONTRAINDICATIONS**
  - Known hypersensitivity

- **Interactions**
  - Decreases the effectiveness of other drugs

- **Contraindications**
  - Known hypersensitivity

- **Caution**
  - Pregnancy category C

- **Interactions**
  - Decreases the effectiveness of other drugs

**Adverse reactions**

No adverse reactions have been reported.

**Antiflatulents**

<table>
<thead>
<tr>
<th>Generic</th>
<th>Trade</th>
<th>Use</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal</td>
<td>Charcocs, Flatux</td>
<td>Intestinal gas, Diarrhea, poisoning antidote</td>
<td>520 mg orally after meals</td>
</tr>
<tr>
<td>Simethicone</td>
<td>Gas-x, mylicon, maalox, mylanta</td>
<td>Post op gas distention, dyspepsia, IBS, peptic ulcer</td>
<td>40-125 mg QID after meals and at bedtime</td>
</tr>
</tbody>
</table>
**How do they work?**

**“Action”**

There are many forms of laxatives, but the main goal is to relieve constipation.

**What are they used for?**

**“Indications”**

❖ Stimulant, emollient, and saline laxatives—evacuate the colon for rectal and bowel examinations
❖ Stool softeners or mineral oil—prevention of strain during defecation (after anorectal surgery or a myocardial infarction)
❖ Psyllium and polycarbophil—irritable bowel syndrome and diverticular disease
❖ Hyperosmotic (lactulose) agents—reduction of blood ammonia levels in hepatic encephalopathy

**Contraindications**

❖ Known hypersensitivity
❖ Persistent abdominal pain
❖ Nausea or vomiting of unknown cause
❖ Signs of acute appendicitis

**Adverse reactions**

❖ Constipation
❖ Abdominal pain or discomfort, nausea, vomiting, perianal irritation, bloating, flatulence, cramps, weakness
❖ Prolonged use of a laxative can result in serious electrolyte imbalances, as well as the "laxative habit," that is, dependence on a laxative to have a bowel movement.
❖ Some of these products contain tartrazine (a yellow food dye), which may cause allergic-type reactions (including bronchial asthma) in susceptible individuals. Obstruction of the esophagus, stomach, small intestine, and colon has occurred when bulk-forming laxatives are administered without adequate fluid intake or in patients with intestinal stenosis.

**Caution**

*Magnesium:* Used cautiously in any degree of renal impairment

**Nursing management**

❖ Avoid long-term use of these products unless use of the product has been recommended by the primary health care provider. Long-term use may result in the "laxative habit," which is dependence on a laxative to have a normal bowel movement. Constipation may also occur with overuse of these drugs. Laxatives are not to be used for weight loss. Read and follow the directions on the label.
❖ Do not use these products in the presence of abdominal pain, nausea, or vomiting.
❖ Notify the primary health care provider if constipation is not relieved or if rectal bleeding or other symptoms occur.
❖ To avoid constipation, drink plenty of fluids, get exercise, and eat foods high in bulk or roughage. Cascara sagrada or senna—Pink-red, red-violet, red-brown, yellow-brown, or black discoloration of urine may occur. (Ford 440)

**Types**

❖ Bulk-producing laxatives are not digested by the body and therefore add bulk and water to the contents of the intestines. The added bulk in the intestines stimulates peristalsis, moves the products of digestion through the intestine, and encourages evacuation of the stool. Sometimes these laxatives are used with severe diarrhea to add bulk to the watery bowel contents and slow transit through the bowel. Psyllium "Metamucil"
❖ Emollient laxatives lubricate the intestinal walls and soften the stool, thereby enhancing passage of fecal material. Mineral oil
❖ Stool softeners promote water retention in the fecal mass and soften the stool. One difference between emollient laxatives and stool softeners is that the emollient laxatives do not promote the retention of water in the stool. Docusate
❖ Hyperosmolar drugs dehydrate local tissues, which causes irritation and increased peristalsis, with consequent evacuation of the fecal mass. Glycerine or lactulose
❖ Irritant or stimulant laxatives increase peristalsis by direct action on the intestine. Cascara sagrada
❖ Saline laxatives attract or pull water into the intestine, thereby increasing pressure in the intestine, followed by an increase in peristalsis. Magnesium preparations

**Interactions**

❖ Mineral oil may impair the GI absorption of fat-soluble vitamins (A, D, E, and K).
❖ Laxatives may reduce absorption of other drugs present in the GI tract by combining with them chemically or hastening their passage through the intestinal tract.
❖ When surfactants are administered with mineral oil, they may increase mineral oil absorption.
❖ Milk, antacids, histamine H2 antagonists, and proton pump inhibitors should not be administered 1 to 2 hours before bisacodyl tablets because the enteric coating may dissolve early (before reaching the intestinal tract), resulting in gastric lining irritation or dyspepsia and decreasing the laxative effect of the drug.