stool, a series of three specimens, spaced 2 to 3 days apart, is obtained when parasitic infection is suspected.
• Stool culture is ordered when an enteric pathogen is suspected (e.g., for persistent or bloody diarrhea accompanied by fever and/or recent travel out of the country).
• Serum electrolytes, serum osmolality, and arterial blood gases may be ordered to assess for adverse effects of diarrhea. Increased serum osmolality indicates water loss and dehydration. Other potential imbalances include hypokalemia, hypomagnesemia, and metabolic acidosis as a result of diarrhea. The serum sodium may be increased or decreased, depending on the type of diarrhea.
• Sigmoidoscopy allows direct examination of the bowel mucosa. Stool may also be obtained during sigmoidoscopy for microscopic examination. The preparation and teaching for a client undergoing sigmoidoscopy is in the box below.
• Tissue biopsy may be performed to identify chronic inflammatory processes, infection, and other causes of diarrhea. For biopsy, a small section of tissue (which may include the mucosal and muscle layers) is removed and examined for gross microscopic and histologic (cell character) changes.

Medications
Antidiarrheal medications are used sparingly or not at all until the cause of diarrhea has been identified. In diarrhea associated with botulism or bacillary dysentery, giving an antidiarrheal agent can worsen or prolong the disease by slowing elimination of the toxin from the bowel. Once the underlying cause for diarrhea has been established, specific medications may be ordered to treat the underlying cause. Antibiotics are used with caution because they alter the normal bacterial population of the bowel and may actually worsen diarrhea. A balanced electrolyte solution may be required to replace fluid losses. Intravenous or oral potassium preparations may also be prescribed.

Opium and some of its derivatives, anticholinergics, absorbants, and demulcants are commonly used as antidiarrheal preparations. Specific preparations, their method of action, and the nursing implications for these medications are outlined below.

Medication Administration

**Antidiarrheal Preparations**

**ABSORBANTS AND PROTECTANTS**

- Kaolin and pectin (Kaopectate, Donnagel-MB)
- Charcoal
- Bismuth subsalicylate (Pepto-Bismol)

Absorbent preparations act locally in the intestines to bind substances that can cause diarrhea. Absorbents are safe and are generally available over the counter. Their efficacy has not been proved, although bismuth subsalicylate has been shown to be somewhat effective in preventing and managing traveler’s diarrhea, usually related to contaminated water supplies. Bismuth salts also have a protective and antimicrobial effect.

**Nursing Responsibilities**

- Assess for contraindications to antidiarrheal therapy, such as some infections or chronic inflammatory bowel disease, including ulcerative colitis.
- If fever is present, check with physician before giving the medication.
- Administer these medications at least 1 hour before or 2 hours after other oral medications; they may interfere with the absorption of other drugs.
- Observe the client’s response to the medication. Constipation is a potential problem.

**Client and Family Teaching**

- Take the recommended dosage at the onset of diarrhea and after each loose stool.
- Do not take any of these preparations for more than 48 hours. If diarrhea persists, notify the physician.
- Do not give antidiarrheal medications to debilitated older clients without physician supervision.
- Chew bismuth subsalicylate tablets, rather than swallowing them whole, for maximal effectiveness. This medication may cause harmless darkening of the tongue and stool.
- If you are allergic to aspirin, use bismuth subsalicylate with caution; as a general rule, avoid taking aspirin while taking bismuth subsalicylate.

(continued on page 620)