



FIGURE 96-1 Approach to the diagnosis and management of acute infectious diarrhea. Abd., Abdominal; IV, intravenous; ORS, oral rehydration solution; WBC, white blood cell. *If unexplained abdominal pain and fever suggest an appendicitis-like syndrome, culture for *Yersinia enterocolitica*. †Bloody diarrhea, in the absence of fecal leukocytes, suggests enterohemorrhagic *Escherichia coli* or amebiasis (where leukocytes are destroyed by the parasite). ‡Ingestion of inadequately cooked seafood prompts consideration of *Vibrio* infections or noroviruses. §Associated antibiotics should be stopped and *Clostridium difficile* considered. ¶Persistence of diarrhea (>10 days) with weight loss prompts consideration of giardiasis, cryptosporidiosis, or inflammatory bowel disease. ||Travel to tropical areas increases the chance of enterotoxigenic *E. coli* (ETEC) as well as viral, protozoal (*Giardia*, *Entamoeba*, *Cryptosporidium*), and, if fecal leukocytes are present, invasive bacterial pathogens. #Outbreaks should prompt consideration of *Staphylococcus aureus*, *Bacillus cereus*, *Clostridium perfringens*, ETEC, *Vibrio*, *Salmonella*, *Campylobacter*, or *Shigella* infection. **Sigmoidoscopy in symptomatic homosexual men should distinguish proctitis in the distal 15 cm (caused by herpesvirus, gonococcal, chlamydial, or syphilitic infection) from colitis (*Campylobacter*, *Shigella*, or *C. difficile* infection). ††In immunocompromised hosts, a wide range of viral (e.g., cytomegalovirus, herpes simplex virus, rotavirus), bacterial (e.g., *Salmonella*, *Mycobacterium avium* complex, *C. difficile*), protozoal (e.g., *Cryptosporidium*, *Isoospora*, *Microsporidium*, *Entamoeba*, *Giardia*) and parasitic (*Strongyloides* hyperinfection syndrome) agents should be considered. (Modified from Guerrant RL, Shields DS, Thorson SM, et al: Evaluation and diagnosis of acute infectious diarrhea, *Am J Med* 78:91–98, 1985.)

for toxin B should be obtained if there is a history of recent antibiotic use, hospitalization, or age greater than 65 years with coexisting conditions, immunosuppression, or neutropenia. Consider protozoa, and check stools for ova and parasites (e.g., trophozoites) and/or for *Giardia* antigen test if diarrhea duration is greater than 7 days. If a patient has AIDS, stools should be checked for *Cryptosporidium*, *Microsporidium*, and *Mycobacterium avium* complex.

TREATMENT

Initial therapy should include fluid and electrolyte repletion with or without antimicrobial therapy. Oral rehydration is often adequate unless the patient is comatose or severely dehydrated. Nutritional support with continued feeding improves outcomes in children. In children, the BRAT diet (bananas, rice, apple-sauce, and toast) with avoidance of milk products is often recommended, but supporting evidence is limited.

Oral Fluid Therapy

In most patients with diarrhea, fluid repletion can be achieved with oral rehydration therapy using isotonic fluids containing glucose and electrolytes. An effective solution can be prepared by the addition of 2 tablespoons of sugar, one fourth of a teaspoon

of salt (NaCl), and one fourth of a teaspoon of baking soda (NaHCO₃) to 1 L of boiled drinking water. In the United States, fluids containing sodium in the range of 45 to 75 mEq/L (such as Pedialyte or Rehydrolite solutions) are recommended. Fluid should be administered in large quantities until there is clinical evidence that fluid balance is restored, and then as maintenance therapy. Oral rehydration therapy can be life-saving for patients in developing countries with severe diarrhea.

Intravenous Fluid Therapy

Massive fluid loss due to diarrhea should be rapidly replaced by the administration of intravenous fluids. Lactated Ringer's solution is the fluid of choice because the composition is similar to electrolyte loss during diarrhea. The rate of fluid administration and maintenance should be guided by clinical signs including vital signs, appearance of the mucosa, neck veins, and skin turgor.

Antimicrobial Therapy

Most cases of infectious diarrhea do not require antimicrobial therapy. However, antibiotics may decrease the volume of diarrhea (e.g., in cholera) or the duration and severity of the illness. Antibiotics are effective in the treatment of shigellosis, traveler's