West Virginia Department of Health and Human Resources
Information for Physicians – Recommended Strategies for Management of Community-acquired Infectious Diarrhea

Initiate rehydration.
Oral rehydration is preferred because the patient can self-regulate the amount according to thirst. Prescribe Pedialyte, Ceralyte or generic oral rehydration solutions approaching the WHO-recommended electrolyte concentrations.

Assess the patient.
Do not miss the patient with *profuse, dehydrating, febrile, or bloody diarrhea, especially in infants, elderly and immunocompromised patients*. Assess for:

- ❑ When / how the illness began (i.e., abrupt or gradual onset);
- ❑ Character of the stools (watery, bloody, mucous, purulent, greasy, etc.);
- ❑ Frequency / quantity of bowel movements;
- ❑ Presence of fever, tenesmus, blood or pus (i.e., dysenteric symptoms);
- ❑ Signs and symptoms of dehydration (thirst, tachycardia, orthostasis, decreased urination, lethargy, decreased skin turgor, etc.); AND
- ❑ Other symptoms (nausea, vomiting, abdominal pain, cramps, headache, myalgias, altered sensorium, etc.).

Do not miss *important epidemiological clues*:

Ask about:	Epidemiological association(s) include, but are not limited to:
❑ Travel to a developing area;	Enterotoxigenic *E coli*, in addition to other pathogens
❑ Daycare attendance or employment	*E coli* O157:H7, *Shigella*, *Giardia*
❑ Consumption of unsafe foods such as raw meats, eggs or shellfish; unpasteurized milk or juice	*Salmonella*, *Campylobacter*, *E coli* O157:H7, *Giardia*, *Cryptosporidium*, *Yersinia enterocolitica*, *Vibrio* species
❑ Swimming in or drinking from untreated surface water such as a lake or stream	*Campylobacter*, *Cryptosporidium*, *Giardia*
❑ Visiting a farm or petting zoo or having contact with reptiles or pets with diarrhea	*Salmonella*, *Campylobacter*, *E coli* O157:H7, *Cryptosporidium*
❑ Knowledge of other ill persons such as in a dormitory, office or attendees at a social function	Outbreak – discuss with public health immediately!
❑ Recent or regular medications, including antibiotics	*Clostridium dificile,* antibiotic-resistant *Salmonella* or *Campylobacter*
❑ Underlying medical conditions predisposing to infectious diarrhea, such as AIDS, immunosuppressive conditions	*Microsporidia*, *M avium* complex, in addition to other pathogens
❑ Receptive anal intercourse or oral-anal sexual contact	*Giardia*, *Cryptosporidium*, *Campylobacter, Shigella*. Also consider sexually transmitted pathogens such as *Chlamydia*, gonorrhoeae, *Herpes*, etc.
❑ Employment as a foodhandler	Transmission to patrons of the food establishment

Perform selective fecal studies.
Any diarrheal illness lasting greater than one day, especially if accompanied by fever, bloody stools, systemic illness, recent antibiotic use, day-care attendance, overseas travel, hospitalization, or dehydration should prompt evaluation of a fecal specimen, as follows:

Community-acquired or Traveler's diarrhea; test for:		**Persistent diarrhea > 7 days; also consider parasitic pathogens:**	
❑ *Salmonella*	❑ *Campylobacter*	❑ *Giardia*	❑ *Cyclospora*
❑ *Shigella*	❑ *E coli* O157:H7	❑ *Cryptosporidium*	❑ *Isospora belli*

Special circumstances:
- ❑ History of recent antibiotic use or chemotherapy ⇨ test for *C difficile* toxins A + B.
- ❑ Prolonged diarrhea in HIV (+) individual ⇨ test for *Microsporidia* and *M avium* complex, in addition to other bacterial and parasitic pathogens, as appropriate.
- ❑ Undercooked seafood or seacoast exposure ⇨ test for *Vibrio* species.
- ❑ Persistent abdominal pain and fever ⇨ test for *Yersinia enterocolitica*.
- ❑ Post-diarrheal hemolytic uremic syndrome ⇨ test for Shiga toxin-producing *E coli* and for Shiga toxin.

Institute selective therapy.
- ❑ Some experts recommend empiric therapy for traveler's diarrhea. Some also consider empirical treatment of diarrhea that lasts longer than 10-14 days for suspected giardiasis, if other evaluations are negative and, especially if history of travel or water exposure is suggestive. Otherwise, consider treatment of patients with febrile diarrhea, especially those believed to have moderate to severe invasive disease after obtaining a stool culture, as above. Use a fluoroquinolone or, in children, trimethoprim-sulfamethoxazole, and adjust according to antimicrobial susceptibilities, when available. Antimicrobial resistance is increasing rapidly among *Salmonella, Camplylobacter* and *Shigella* species.
- ❑ ***Antimicrobial therapy may be harmful to some patients with* E coli *O157:H7 infection or uncomplicated* Salmonella *infection. Some experts recommend withholding treatment from patients in the U.S. with bloody diarrhea. Culture before treating!***

Avoid antimotility drugs.
Antimotility drugs are *contraindicated* in patients with bloody diarrhea or proven infection with Shiga toxin-producing *E coli* O157:H7. Use with caution, if at all.

Communicate with your local health department.
Cases of *Salmonella*, *Shigella*, *Campylobacter*, *Giardia*, *Cryptosporidium*, *E coli* O157:H7 or Shiga toxin-producing *E coli*, and *Yersinia enterocolitica* or *Vibrio* species should be reported to the local health department. Outbreaks of any pathogen should be reported immediately. The local health department is responsible for investigation of cases and outbreaks to:
- ❑ Identify additional cases and refer for evaluation and treatment, as needed.
- ❑ Identify *and remove* sources of infection in the community.

For more information:
Guerrant, R.L., Van Gilder, T., Steiner, T.S., et.al. Practice guidelines for the management of infectious diarrhea. Clin Infect Dis, 2001; 32:331-50.