27. The primer increased my ability to recognize foodborne illnesses and increased the likelihood that I will consider such illnesses in my patients.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

28. The primer increased my knowledge and skills in the diagnosis and management of foodborne illness.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

29. This primer increased my knowledge of the role of public health authorities in the prevention and control of foodborne disease outbreaks.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

30. It is important to talk to my patients about food safety.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

31. As formatted, this primer is a useful physician education tool.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

32. The amount of information presented was appropriate for my needs.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

33. I will recommend this primer to my colleagues.
   A. Strongly Agree       D. Disagree
   B. Agree               E. Strongly Disagree
   C. Neither agree nor disagree

34. How much time did you spend working through this primer and completing this exam?
   A. Less than 1 hour       C. 2-3 hours
   B. 1-2 hours              D. More than 3 hours
Diagnosis and Management of Foodborne Illnesses

Continuing Medical Education: Questions

Produced collaboratively by the:

American Medical Association
American Nurses Association-American Nurses Foundation
Centers for Disease Control and Prevention
Center for Food Safety and Applied Nutrition, Food and Drug Administration
Food Safety and Inspection Service, US Department of Agriculture

April 2004

To receive continuing education credit, please answer all of the following questions.

1. Which of the following provide important clues to the possible etiology of a food-associated illness?
   A. Incubation period
   B. Duration of illness
   C. Predominant clinical signs and symptoms (e.g., vomiting, diarrhea, abdominal pain)
   D. Travel history
   E. All of the above

2. Which group is at higher risk for complications from foodborne illness?
   A. Persons with weakened immune systems
   B. Persons with liver disease
   C. Pregnant women
   D. Older adults
   E. All of the above

3. Which of the following is NOT a safe food handling behavior?
   A. Using the same cutting board for raw foods and cooked foods
   B. Using a food thermometer to check the internal temperature of food before eating it
   C. Rinsing raw produce with water
   D. Washing hands before and after handling food
4. What is the appropriate method to determine if a hamburger is cooked to a proper temperature?
   A. Cooking it until it is brown inside
   B. Using a food thermometer to ensure that the internal temperature reaches 160°F
   C. It is not necessary to determine if a hamburger is cooked to a proper temperature as it is too small
   D. Taking a bite of the hamburger to ensure that it tastes cooked

5. If you suspect a foodborne outbreak of any kind, you should report it to the local health department. Which of the following would be helpful to contact at the health department:
   A. Medical Officer
   B. Epidemiology officer
   C. Environmental health officer
   D. Any of the above would be acceptable

6. Which of the following are NOT consistent with inflammatory diarrhea?
   A. Presence of fecal leukocytes
   B. Grossly bloody stool
   C. Caused by infection with invasive or cytotoxigenic bacterial and protozoan species
   D. Usually involves the small intestine

7. If a foodborne illness is suspected, which of the following should be considered?
   A. Submit appropriate specimens for laboratory testing
   B. Contact the state or local health department
   C. Initiate oral rehydration therapy
   D. All of the above

8. While intentional contamination of food is not common, which of the following would make you suspect that such an act has occurred? Note: It is the unusual nature of the whole picture or context that should induce thoughts about intentional contamination.
   A. An unusual agent or pathogen in a common food
   B. A common agent or pathogen affecting an unusually large number of people
   C. A common agent or pathogen that is uncommonly seen in clinical practice
   D. All of the above

9. Multidrug-resistant Salmonella Typhimurium cases:
   A. Have been on the rise in the US since the 1990s
   B. May be responsible for more invasive disease than other types
   C. Often are resistant to ampicillin and sulfamethoxazole
   D. Cause more cases in an outbreak than do sensitive strains
   E. All of the above

10. Norovirus infection causes nausea, vomiting, and watery/large-volume diarrhea within 24–48 hours. The source of infection could be:
    A. Poorly cooked shellfish
    B. Inadequately cooked hamburger
    C. Ready-to-eat foods, e.g. salads
    D. Iced drinks
    E. All but (b)
11. The most common cause of "traveler’s diarrhea" that can be transmitted by food or water is:
   A. *Campylobacter jejuni*  
   B. Enterotoxigenic *E. coli* (ETEC)  
   C. *Salmonella*  
   D. Norovirus

12. What is the most likely food- or water-related agent associated with persistent diarrhea (i.e., lasting > 14 days)?
   A. *Giardia lamblia*  
   B. *Shigella species*  
   C. *Campylobacter jejuni*  
   D. *Vibrio cholerae*

13. Which of the following food-associated diseases and conditions are not designated as notifiable at the national level?
   A. Botulism  
   B. Staphylococcal food poisoning  
   C. Trichinosis  
   D. Hepatitis A

14. A “routine” stool culture will likely isolate which of the following food-related pathogens?
   A. *Listeria monocytogenes*  
   B. *E. coli* O157:H7  
   C. *Vibrio cholerae*  
   D. Hepatitis A virus

15. Which of the following foodborne pathogens can be prevented by vaccination?
   A. *Cyclospora cayetanensis*  
   B. *Campylobacter jejuni*  
   C. Hepatitis A virus  
   D. *E. coli* O157:H7

16. The examination of the stool for cysts and/or ova is the common diagnostic for which foodborne pathogen?
   A. Parasitic infections  
   B. Viral infections  
   C. Bacterial infections  
   D. Non-infectious agents  
   E. None of the above

17. A rapid incubation period of 2-6 hours prior to gastrointestinal symptoms is indicative of which of the following?
   A. Hepatitis A virus infection  
   B. Ciguatera fish poisoning  
   C. *Giardia lamblia* infection  
   D. *Brucella abortus* infection

18. A patient tells you that he has a diarrheal illness following consumption of seafood from a street vendor in the Caribbean. Which of the following should you do?
   A. Request your clinical microbiology laboratory to specifically test for *Vibrio* species in the patient’s stool sample.
   B. Request your clinical microbiology laboratory to examine the patient’s stool samples for cysts and ova of *Cyclospora*.
   C. Request your clinical microbiology laboratory to specifically test for *E. coli* O157:H7 in the patient’s stool sample.
   D. You need not request your clinical laboratory to specifically test for a pathogen as *Campylobacter jejuni* is part of a routine stool culture.
19. If you are counseling a pregnant patient, what food should she avoid to decrease her risk for listeriosis?
   A. Cheddar cheese  
   B. Smoked seafood  
   C. Sauerkraut  
   D. Ice Cream  

20. A patient presents with a history of abdominal cramps, bloody diarrhea and dehydration. Which culture must you request the laboratory to perform, as it is not always a routine screening test?
   A. *Shigella* species  
   B. *E. coli* O157:H7  
   C. *Salmonella* species  
   D. *Campylobacter jejuni*  

21. Which scenario(s) may present a risk to patients, especially the immunocompromised?
   A. Pet reptiles in the home  
   B. Eating sprouts on a sandwich  
   C. Eating raw oysters  
   D. Drinking non-pasteurized juices  
   E. All of the above  

22. A patient presents to the Emergency Room with hoarseness, ptosis and upper extremity paralysis. He has a history of home canning and you suspect botulism. After you stabilize the patient and evaluate respiratory function, you
   A. Immediately induce vomiting  
   B. Contact the FDA  
   C. Contact the local or state health department  
   D. All of the above.  

23. Which of the following foodborne illnesses has the longest incubation period?
   A. Staphylococcal intoxication  
   B. *Bacillus cereus* gastroenteritis  
   C. *Cholera*  
   D. Listeriosis  
   E. *E. coli* diarrhea  

24. Which foodborne illness may present with chocolate-brown colored blood?
   A. Nitrite poisoning  
   B. Organophosphate poisoning  
   C. Botulism  
   D. Mercury poisoning  
   E. Tin poisoning  

25. Why may the use of antibiotics in children with *E. coli* O157:H7 infection be contraindicated?
   A. *E. coli* O157:H7 is multiply resistant to antibiotics and thus not treatable with antibiotics.  
   B. Antibiotic use only serves to increase the stress on the kidneys.  
   C. Data indicates that antibiotics may increase the risk of hemolytic uremic syndrome.  
   D. The use of antibiotics is not contraindicated and data exists to show decreased illness severity following its use.  

26. When choosing to use antimicrobial therapy for a foodborne illness, which of the following should be considered in the decision process?
   A. The clinical signs and symptoms of the illness  
   B. The organism that was isolated from clinical specimens  
   C. The results of antimicrobial susceptibility tests  
   D. The appropriateness of treating with an antimicrobial  
   E. All of the above