

## Step 1 – ID: 1498

A diarrheal outbreak is reported at a private school in Columbus, Ohio. Six healthy children age 10-11 and two teachers developed acute vomiting and diarrhea within a 2-day period. They describe the diarrhea as watery and without blood or mucus. Three of those affected are febrile during their illness. None of the patients have traveled abroad recently, and all are up to date with their vaccinations. Stool test results are pending. Which of the following pathogens is the most likely cause of the illness?

- A. Adenovirus
- B. *Campylobacter jejuni*
- C. *Clostridioides* (formerly *Clostridium*) *difficile*
- D. Enterotoxigenic *Escherichia coli*
- E. Norovirus
- F. Rotavirus
- G. *Salmonella typhi*



## Step 1 – ID: 1497

During the course of a week at an overnight summer camp, 4 children age 7-9 are sent to the camp health center. They each have fever, cough, congestion, sore throat, and red eyes. Physical examination of the children shows bilateral conjunctival injection and an erythematous oropharynx. Auscultation of one child also reveals crackles in the left lower lung field. All the children's symptoms improve over 7 days with supportive care. Which of the following is the most likely cause of the outbreak?

- A. Adenovirus
- B. Coxsackievirus
- C. Influenza virus
- D. Norovirus
- E. Parvovirus
- F. Respiratory syncytial virus



## Step 1 – ID: 15215

A 3-year-old girl is brought to the emergency department with abrupt-onset vomiting followed by frequent, large-volume, watery diarrhea for the last day. She has no prior medical conditions but has not received recommended vaccinations. Temperature is 37.8 C (100 F). Physical examination shows mild dehydration. The abdomen is soft and mildly tender to palpation throughout. Bowel sounds are increased. Polymerase chain reaction testing of the stool sample yields a virus with a segmented, double-stranded RNA genome. Which of the following pathologic findings is most likely to be present in this patient?

- A. Blunting of the villi in the duodenum and proximal jejunum
- B. Extensive colonic mucosal injury with yellow-white adherent layer
- C. Flask-shaped ulcerations in the cecum and ascending colon
- D. Foamy macrophages in the small intestinal lamina propria
- E. Inflammatory infiltration and necrosis of the Peyer patches



## Step 2 – ID: 17748

A 16-year-old girl is brought to the clinic due to vomiting and abdominal pain. Since this morning, the patient has had multiple episodes of nonbilious, nonbloody emesis as well as intermittent nausea and abdominal pain. She has also had 3 episodes of watery diarrhea. The patient attended a school cookout approximately 36 hours prior to her first bout of emesis, and several of her friends who also attended have similar symptoms. Temperature is 37.4 C (99.1 F), blood pressure is 115/75 mm Hg, and pulse is 95/min. She appears uncomfortable but is alert and interactive. Mucous membranes are slightly dry. There is diffuse tenderness to deep palpation on abdominal examination but no masses or hepatosplenomegaly. The skin is well perfused, and no rashes are evident. Which of the following is the most likely etiology of this patient's illness?

- A. *Bacillus cereus*
- B. Norovirus
- C. Rotavirus
- D. *Shigella sonnei*
- E. *Staphylococcus aureus*



## Step 2 – ID: 105673

A 3-year-old, previously healthy boy is brought to the emergency department due to a daylong history of vomiting, diarrhea, abdominal pain, and fever. The patient has vomited 3 times and had 5 watery stools. He has no ear pain or urinary symptoms, and he has voided 3 times today. Temperature is 38 C (100.4 F), blood pressure is 100/70 mm Hg, pulse is 102/min, and respirations are 20/min. On physical examination, the patient is not in acute distress. Buccal mucous membranes are slightly dry. Capillary refill is 2 seconds. Skin turgor is normal. The patient has mild discomfort on deep palpation on the center of the abdomen; there is no rigidity, rebound, or guarding. Bowel sounds are hyperactive. What is the most appropriate next step in management?

- A. Admit to the hospital for intravenous fluids
- B. Discharge home with oral rehydration solution
- C. Obtain abdominal x-ray
- D. Obtain fecal leukocyte testing
- E. Obtain stool cultures



## Step 2 – ID: 8951

A 6-month-old girl is brought to the office for a well-child visit and routine vaccinations. The patient is exclusively breastfed and is urinating and stooling normally. One month ago, she was hospitalized for intussusception that was reduced successfully by air enema. The patient lives in a small apartment with her mother, brother, and maternal aunt, who is pregnant. Vital signs are normal. On examination, she has mild nasal congestion and clear rhinorrhea. The remainder of the examination is normal. Her mother is very concerned about the potential side effects of vaccinations. Which of the following is this patient's contraindication to the rotavirus vaccination?

- A. Administration of inactivated immunizations on the same day
- B. Exclusive breastfeeding
- C. History of intussusception
- D. Pregnant household member
- E. Viral upper respiratory infection

