

Gastrointestinal Rotation Examination

This examination is part of a study to determine the utility of a residency oriented guidebook. We will be administering this test to you at the beginning and end of your GI rotation to determine how much your medical knowledge and awareness of best patient care practices has improved over the rotation. The scores on this quiz will be deidentified and kept completely confidential. Please write your ASCOM number and rotation month on the top of the page. Thank you for taking the time to help improve our program.

1) Neveah is a 5 month old female with a Broviac and a history of short gut syndrome secondary to malrotation leading to ileal resection. She presented to the ED because mom has noted increased NBNB emesis following feeds over the past day. Normal stool pattern and consistency. Current diet is Similac Advance 5 oz every 4 hours. Patient has not started on solid foods yet. Screening labs in the ED were notable for a CBC with a normal WBC count without a left shift, CMP with AST/ALT in the 100s and normal electrolytes.

What is the next most appropriate step?

- a) Switch feeds to Elecare at same rate
- b) Adjust feeds to 2.5 oz every 2 hrs
- c) Aerobic, Anaerobic and Fungal Blood Cultures
- d) Start Zosyn for presumed line infection
- e) Start Prevacid for GERD

2) A 5-month-old infant is brought to your office because of blood and mucous in his stools. He has been afebrile and continues to nurse vigorously at the breast. Rice cereal feedings mixed with cow milk were introduced two weeks ago.

Which of the following is the next most appropriate step?

- a) Digital Rectal Examination
- b) Stool Culture
- c) Switch feeds to Isomil Soy (Similac)
- d) Switch feeds to Good Start (Carnation)
- e) Switch feeds to Alimentum (Mead Johnson)

3) You are an intern on AT1 caring for a 16 year old female patient with known GERD and constipation. She is complaining of mild diffuse abdominal pain which has worsened over the past several days. Patient believes that food makes the pain worse so she has decreased her intake recently.

Which of the following is an indication to consult GI?

- a) Patient has not stooled in one week, abdomen is soft but with LLQ fullness
- b) Before starting patient on a prolonged course of a proton pump inhibitor
- c) Patient has lost 8 lbs in the past week but is still drinking appropriately
- d) Abdominal x-ray reveals a non-obstructive bowel gas pattern
- e) Prior to initiating patient on a colonic wash protocol

4) You are evaluating a 2-day-old term infant because of abdominal distention. He fed normally the first day after birth but has had progressively increasing vomiting, which is now bilious. Physical examination reveals upslanted palpebral fissures, a prominent tongue, and mild hypotonia. Upon passage of a nasogastric tube, you aspirate 80 mL of green yellow material from his stomach. Abdominal radiographs, including a left lateral decubitus film reveal dilated loops of bowel and air-fluid levels with no evidence of pneumatosis.

Which of the following is **NOT** typically performed in the workup of this disorder?

- a) Rectal Biopsy
- b) CT scan of Abdomen and Pelvis
- c) Digital Rectal Examination
- d) Barium Enema
- e) Anorectal Manometry

5) Amy is a 16 year old female with known Ulcerative Colitis. She has had a week of worsening abdominal pain which coincided with loose, bloody stools. As a result of her abdominal pain, her appetite has severely decreased but she denies nausea or vomiting. She has an elevated ESR and CRP. C.diff toxin is pending. You start her on a short course of IV steroids to help stop this suspected inflammation.

Which of the following is **NOT** an appropriate medication to start her on at this point?

- a) Protonix (Pantoprazole)
- b) Ondansetron (Zofran)
- c) Morphine sulfate
- d) Flagyl (Metronidazole)
- e) Rowasa (Mesalamine enema)

6) LaMichael is a 4 year old male patient of yours who presents with a 3 day history of profuse watery diarrhea. Several other students in his preschool have had similar complaints in the last week. His mother reports that the stool contains some speckles of blood but no mucous. He is complaining of crampy abdominal pain that is well controlled with children's tylenol. He is afebrile, HR 100, RR 20, BP 100/70. On exam he has moist mucous membranes, capillary refill < 2 s, a normal rectal exam although stool hemoccult was positive. A stool culture is sent.

Which of the following is the appropriate therapy given the results of the stool culture?

- a) Stool culture grows Salmonella; Treat with Bactrim
- b) Stool culture grows Shigella; Treat with Ceftriaxone
- c) Stool culture grows Campylobacter; Treat with Azithromycin
- d) Stool culture grows Yersinia; Treat with Cefotaxime

7) Andrew is a 30 month old male who recently had a PEG placed for failure to gain weight. Although his mother received teaching prior to discharge she has returned to GI clinic five days later saying that she is concerned about the redness around the G tube site. You check the tube and there is 5 cc of fluid in the balloon. The tube is able to turn 360 degrees and is able to move several millimeters away from the skin. The site itself is mildly erythematous and tender with a small amount of thick, yellow discharge noted. At the inferior aspect of the insertion site you notice a bright red, friable, shiny lesion measuring a half centimeter in diameter.

Which of these is a correct statement regarding the PEG site?

- a) Since there was 5 cc of water in the balloon, it was too loose
- b) Since the tube was able to turn 360 degrees, it was too loose
- c) The erythematous lesion requires topical antibiotics
- d) The erythematous lesion should be cauterized
- e) These are expected findings on a PEG several days after insertion.

8) A 9-month-old girl recently recovered from an episode of vomiting and diarrhea. When her mother restarts formula, the girl develops severe watery diarrhea, flatulence, and abdominal distention.

Which of the following is the best treatment option?

- a) Switch patient to a lactose free diet
- b) Switch patient to a gluten free diet
- c) Start patient on an oral antibiotic
- d) Continue to feed patient in current manner and symptoms will resolve

9) Tommy is a 12 month old male who has a history of poor weight gain that started around 8 months of life. He has been seen by his outpatient pediatrician several times during this interval and has failed several new dietary regimens and has had persistently normal labs. His pediatrician is recommending admission to the hospital for a more intensive workup.

Which of the following is **NOT** an indication for admission to the hospital for failure to thrive?

- a) Failure of outpatient management
- b) Suspicion of neglect
- c) Weight 7 kg
- d) HR 75
- e) Sodium 125

10) Samantha is a 14 year old female with severe developmental delay who has severe GERD and has failed a Nissen fundoplication. Due to her severe reflux, she is dependent on a gastrojejunostomy tube which was placed 4 months ago, from which she receives medications through the G and feeds through the J portion. While at home, her mother accidentally removes the feeding tube. When she arrives to you at the floor, the tube has been removed for several hours and a foley catheter of comparable size is in its place. The patient is dehydrated appearing and her mom wants to have the tube replaced immediately.

Who of the following should replace the gastrojejunostomy tube?

- a) The patient's nurse
- b) The patient's resident
- c) The interventional radiologist
- d) The gastroenterologist
- e) The GI surgeon

11) You are following a 3 month old infant who was born at 30 weeks gestation, underwent a distal ileal resection for necrotizing enterocolitis at 2 weeks of age, and subsequently was placed on TPN for 2 months. The baby has residual cholestasis from the TPN (total bili 5.0, direct bili 3.0). Currently she is receiving a cow milk protein hydrolysate formula concentrated to 24 kcal/oz. You are considering adding a dietary supplement to increase the caloric density of this formula.

Which of the following supplements is most likely to be tolerated and cause the least amount of diarrhea in this infant?

- a) Flaxseed oil
- b) Medium chain triglyceride oil
- c) Olive oil
- d) Omega-3 polyunsaturated fish oil
- e) Soybean oil

12) Katie is a 14 year old girl who presents for evaluation after 4 days of fever to 39.5, nausea, abdominal cramping, and profuse bloody diarrhea. She has no travel history, no pets exposures, no sick contacts, and has not tried any unusual foods. One week ago she was diagnosed with MRSA osteomyelitis for which she has been receiving Cefazolin.

Which of the following antibiotics should be used to treat Katie?

- a) Ceftriaxone
- b) Clindamycin
- c) Vancomycin
- d) Trimethoprim-Sulfamethoxazole
- e) Metronidazole

13) A 12 year old boy with Alagille syndrome has been lost to medical follow up for several years. He now presents to your office with pain in his right upper thigh after a fall. His thigh is intensely tender and swollen. X-rays of the right femur exhibit soft tissue swelling but no fracture.

The patient's symptoms would resolve with administration of which of the following?

- a) Rest, Ice, Compression, and Elevation
- b) Vitamin D
- c) Vitamin K
- d) Clindamycin
- e) Ceftriaxone

14) A 4 month old infant who has gastroschisis underwent surgical repair on the first day of life, but continues to require support with parenteral nutrition and lipids. He now has developed poor feeding, irritability, and progressive diarrhea. Radiography reveals metaphyseal fraying but calcium, phosphorus, and 25-hydroxyvitamin D levels are normal. When you review his prior laboratory studies, you note he has had neutropenia for the past 4 weeks.

The patient's symptoms would resolve with administration of which of the following?

- a) Vitamin A
- b) Vitamin B6
- c) Zinc
- d) Magnesium
- e) Copper

15) A 5 year old child is admitted to the hospital with epigastric pain and vomiting. On physical examination, she has a tender epigastrium, but no peritoneal signs. Her amylase is 400 U/L and lipase is 670 U/L. Abdominal ultrasound reveals a prominent pancreatic head but no gallstones or biliary tract dilation. Review of her chart demonstrates two prior hospitalizations over the past 3 years due to pancreatitis. She has no other significant findings in her medical history and no history of trauma preceding any of these episodes.

The condition that best explains the patient's history is:

- a) Alpha-1-Antitrypsin Deficiency
- b) Colipase Deficiency
- c) Hereditary Pancreatitis
- d) Primary Sclerosing Cholangitis
- e) Systemic Lupus Erythematosus

16) You are evaluating a 7 year old boy who has HIV and Failure to Thrive. Over the past 2 months, he has had intermittent temperatures to 102.5 F, anorexia, abdominal pain, diarrhea, and a 6 lb weight loss. His HIV infection has been poorly controlled because of noncompliance with medications. His viral load is 150,000 copies and CD4 count is 40. Physical exam shows a small-for-age boy who is quietly playing. He weighs 15.8 kg (< 5th %). He has some oral thrush, cervical and inguinal adenopathy, and mild diffuse tenderness to palpation of his abdomen.

The most likely pathogen causing this patient's illness is:

- a) Cryptosporidium
- b) Cytomegalovirus
- c) Mycobacterium avium-intracellulare complex
- d) Mycobacterium tuberculosis complex
- e) Salmonella

17) You are evaluating a 2 week old breastfed infant who is 15% below his birthweight and has been lethargic and feeding poorly over the past 4 days. You administer a normal saline fluid bolus. Lab results show a blood glucose of 126, sodium of 170, potassium of 5, BUN of 31, and Cr of 2.9.

Which of the following is the most appropriate initial fluid correction (NOTE: all contain 5% dextrose)?

- a) 0.20 NaCl (%), 40 KCl (mEq/L), infused over 12-24 hrs
- b) 0.45 NaCl (%), 0 KCl (mEq/L), infused over 48-72 hrs
- c) 0.45 NaCl (%), 40 KCl (mEq/L), infused over 12-24 hrs
- d) 0.9 NaCl (%), 0 KCl (mEq/L), infused over 12-24 hrs
- e) 0.9 NaCl (%), 40 KCl (mEq/L), infused over 48-72 hrs

18) A 13 year old boy has a 1 year history of abdominal pain in the epigastric and periumbilical regions. Pain occurs 1-3x per week and sometimes interferes with school and sports. He has a normal physical exam. You review the diagnostic studies that have been performed over the past year.

Of the following, the finding that **MOST** warrants referral for an upper endoscopy is?

- a) Abnormal lactose breath hydrogen test result
- b) Elevated serum alkaline phosphatase value
- c) Elevated serum amylase value
- d) Mild anemia (Hct 33%)
- e) Positive tissue transglutaminase antibody

19) David is a 12 year old boy with intermittent heartburn for the past several years. Results of an upper GI series done at age 11 were normal. Over the past year, he has had several episodes of “food getting stuck in his chest”. The most common foods that cause him difficulty are hot dogs, steak tips, and chicken strips. Physical examination is unremarkable. He has been treated with omeprazole for 3 months.

Which is the most appropriate next diagnostic test?

- a) Esophageal manometry
- b) Esophagogastroduodenoscopy with biopsy
- c) Radionuclide gastric emptying scan
- d) 24 hour esophageal pH probe
- e) Serum IgE level

20) Amy is a 8 year old girl who presents to the ER with a history of recurrent severe vomiting. According to her family, she has had four similar episodes in the past 6 months. Each time, she awakens from sleep, vomits every 20 minutes for 6 hours and then goes back to sleep. Between episodes, which occur approximately every 4 to 6 weeks, Amy is happy and playful. Normal results have been found on prior head MRI, upper GI series, and renal US. In the ED she is quiet, listless, and prefers to be in a dark room. Results of the physical exam are normal, and optic discs are sharp. After 8 hrs of IV hydration, her symptoms resolve, and she is discharged.

Which is the most appropriate medication to treat her underlying condition?

- a) Amitriptyline
- b) Omeprazole
- c) Sucralfate
- d) Ranitidine
- e) Erythromycin