

**NCLEX Notes Week 10: The Gastrointestinal System**

**Diagnostic Procedures**

- **Barium Swallow**

- Examination of the upper gastrointestinal tract under fluoroscopy after the client drinks barium sulfate
  - Pre-procedure
    - withhold foods and fluids for 8 hours prior to the test
  - Post-procedure
    - a laxative may be prescribed
    - instruct the client to increase oral fluid intake to help pass the barium

- **Fiberoptic colonoscopy**

- Study in which the lining of the large intestine is visually examined
  - Pre-procedure
    - Cleansing of the colon
    - Clear liquid diet is started on the day before the test
    - Client is in NPO for 4 to 6 hours prior to the test
  - Post-procedure
    - Monitor vital signs
    - Provide bed rest
    - Monitor for signs of bowel perforation and peritonitis

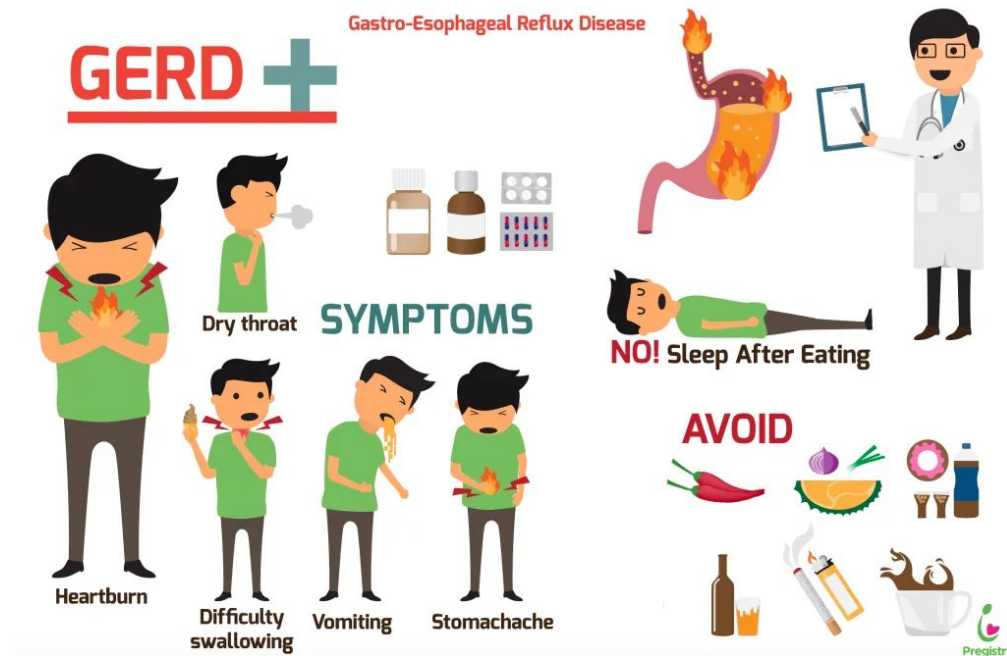
- **Paracentesis**

- Transabdominal removal of fluid from the peritoneal cavity
  - Pre-procedure
    - Ensure that the patient understands the procedure
    - Obtain vital signs and weight
    - Measure the amount of fluid removed
    - Send the fluid for laboratory analysis
  - Post-procedure
    - Apply sterile dressing to insertion site
    - Monitor site for bleeding
    - Measure patient's weight
    - Monitor patient for signs of hypovolemia, electrolyte loss, mental status changes, or encephalopathy

## Gastrointestinal Problems

- **GERD**

- Backflow of gastric and duodenal contents into the esophagus
- Caused by an incompetent lower esophageal sphincter, pyloric stenosis, or motility disorder
  - Assessment
    - Heartburn
    - Dyspepsia
    - Nausea
    - Pain
    - Hypersalivation
  - Interventions
    - instruct the client to eat a low-fat, high-fiber diet and to avoid eating 2 hours before bedtime
    - Instruct the client to take medications like antacids
    - Elevate the head of the bed when sleeping



- **Gastritis**

- Inflammation of the stomach or gastric mucosa
  - Assessment
    - Hiccupping
    - Headache
    - Reflux

- Abdominal Discomfort
  - Belching
  - Interventions
    - Foods and fluids should be withheld until symptoms subside
    - Ice Chips can be given, then clear liquids, then solid food
- **Peptic Ulcer Disease**
  - A peptic ulcer is an ulceration in the mucosal wall of the stomach, pylorus, duodenum, or esophagus due to gastric secretions
    - Assessment
      - Knowing, sharp pain to the left of the mid esophagus region that occurs 30-260 minutes after a meal
    - Interventions
      - Avoid consuming alcohol or substances that contain caffeine or coffee
      - Avoid smoking
      - Avoid aspirin or NSAIDs
      - Reduce stress
      - Administer antacids and anticholinergic
      - Administer mucosal barrier protectant as prescribed one hour before each meal
- **Hiatal Hernia**
  - Portion of the stomach hernia through the diaphragm and into the thorax
    - Assessment
      - Heartburn
      - Vomiting
      - Dysphasia
      - Feeling of fullness
    - Intervention
      - Provide small frequent meals and limit the amount of liquids taken with meals
      - Advise the patient not to recline for 1 hour after eating
- **Esophageal Varicies**
  - Dilated and tortuous veins in the submucosa of the esophagus
    - Assessment
      - Hematemesis
      - Melena
      - Ascites

- Jaundice
  - Dilated abdominal veins
- Interventions
  - Monitor vital signs
  - Elevate the head of the bed
  - Monitor for orthostatic hypotension
  - Administer medications
  - Monitor hemoglobin and hematocrit levels
- **Pancreatitis**
  - Acute or chronic inflammation of the pancreas
    - Assessment
      - Abdominal pain
      - Pain aggravated by a fatty meal, alcohol, or lying and recumbent position
      - Nausea and vomiting
      - Weight loss
    - Interventions
      - Administer H2 receptor Agonist or proton pump inhibitors
      - Avoid using alcohol
- **IBS**
  - Functional disorder characterized by chronic or recurrent diarrhea, constipation, or abdominal pain and bloating
    - Interventions
      - Increase dietary fiber
      - Use medications like antidiarrheals
- **Ulcerative Colitis**
  - An ulcerative and inflammatory disease of the bowel that results in poor absorption of nutrients
    - Assessment
      - Anorexia
      - Weight loss
      - Malaise
      - Abdominal tenderness and cramping
      - Vitamin K deficiency
    - Interventions
      - Monitor bowel sounds
      - Monitor stools

- Instruct the client of a low fiber diet
- **Crohn's Disease**
  - Can act anywhere in the gastrointestinal tract but most commonly affect the terminal ileum and leads to thickening and scarring, narrowing lumen, fistulas, ulcerations, and acidosis
    - Assessment
      - Fever
      - Cramp-like and colicky pain after me
      - Diarrhea
      - Abdominal distension
      - Anorexia
      - Weight loss
      - Anemia
- **Diverticulosis**
  - Is an outpouching or herniation of the intestinal mucosa
- **Diverticulitis**
  - Is the inflammation of one or more diverticula that occurs from penetration of fecal matter through this thin wall be particular
    - Assessment
      - Left lower quadrant pain
      - Elevated temperature
      - Nausea and vomiting
      - Flatulence
      - Cramp like pain
      - Blood in the stools
    - Interventions
      - Monitor for signs of preparation
      - Increase fluid intake to 2500 ml per day
      - Have a colon resection

### **Important Medications**

- **Antacids**
  - React with gastric acid to produce neutral salts
  - should be chewed thoroughly and followed with a glass of milk
- **Histamine Receptor Agonist**
  - Restoration of gastric acid
  - alleviate symptoms of heartburn
  - prevent stress ulcers

- are contradicted in hypertensive clients

- **Proton Pump Inhibitors**

- Suppressed gastric acid secretion
- Used to treat active Ulcer Disease
  - Common side effects include headache, diarrhea, abdominal pain, and nausea

- **Antiemetics**

- Medications used to control vomiting and motion sickness
- Monitor vital signs and intake and output for signs of dehydration in fluid and electrolyte imbalance