



Sick Call Screener Course

Gastrointestinal System

(2.4)



Enabling Objectives

- 1.28 Utilize the knowledge of gastrointestinal system anatomy while assessing a patient with a gastrointestinal complaint
- 1.29 Utilize the knowledge of gastrointestinal system physiology while assessing a patient with a gastrointestinal complaint
- 1.30 Obtain history from patient with common gastrointestinal disorders
- 1.31 Perform an abdominal examination



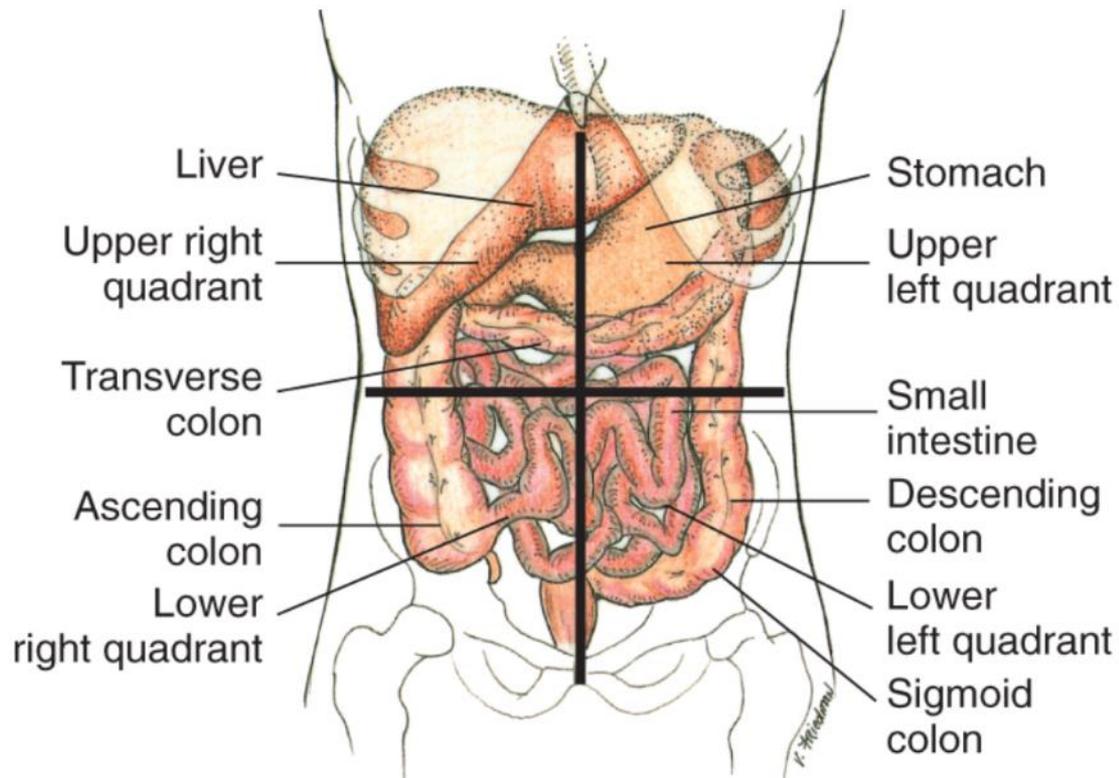
Enabling Objectives

- 1.32 State signs and symptoms of common abdominal disorders
- 1.33 State treatments for common gastrointestinal disorders
- 1.16 State Red Flag criteria



Introduction

- The gastrointestinal tract functions to provide the body with water, electrolytes, and nutrients.



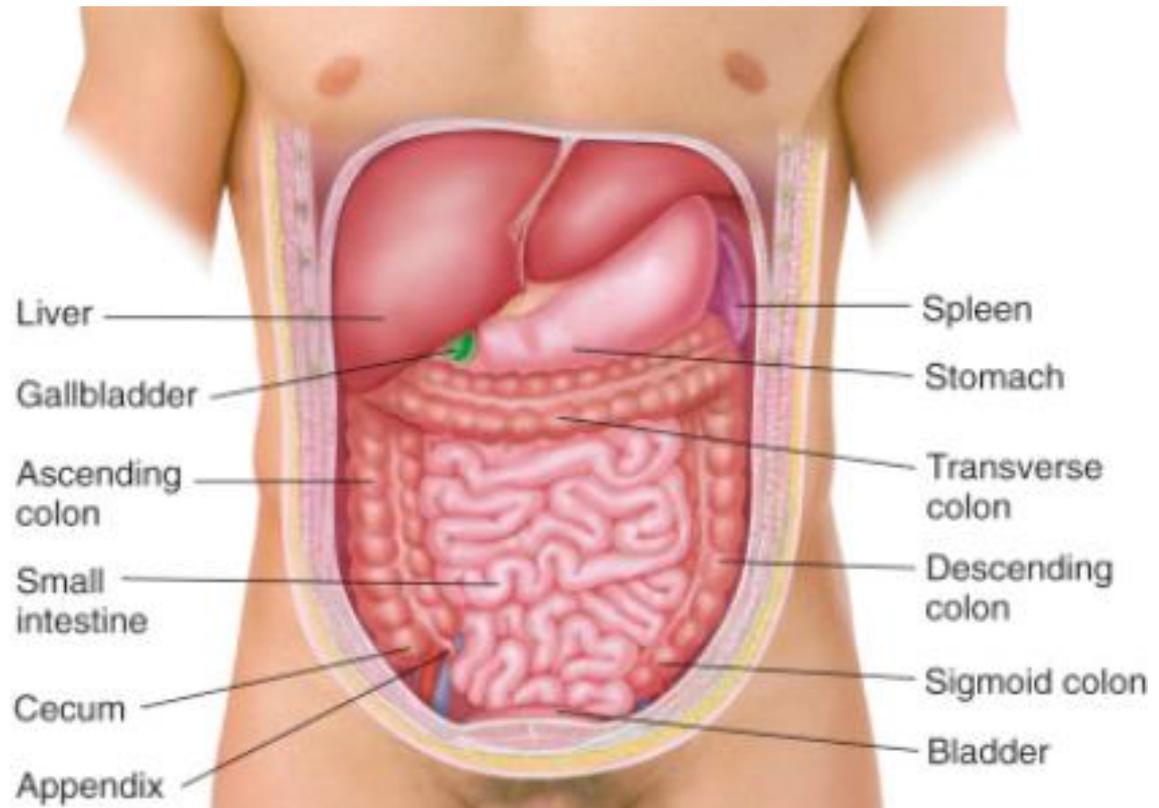
(From Limmers, H.M. and others. [2016]. Emergency Care[13th ed.]. Pearson: O'Keefe.)



Anatomy and Physiology

The gastrointestinal system consists of:

- Esophagus
- Stomach
- Small Intestine
- Large Intestine
- Rectum



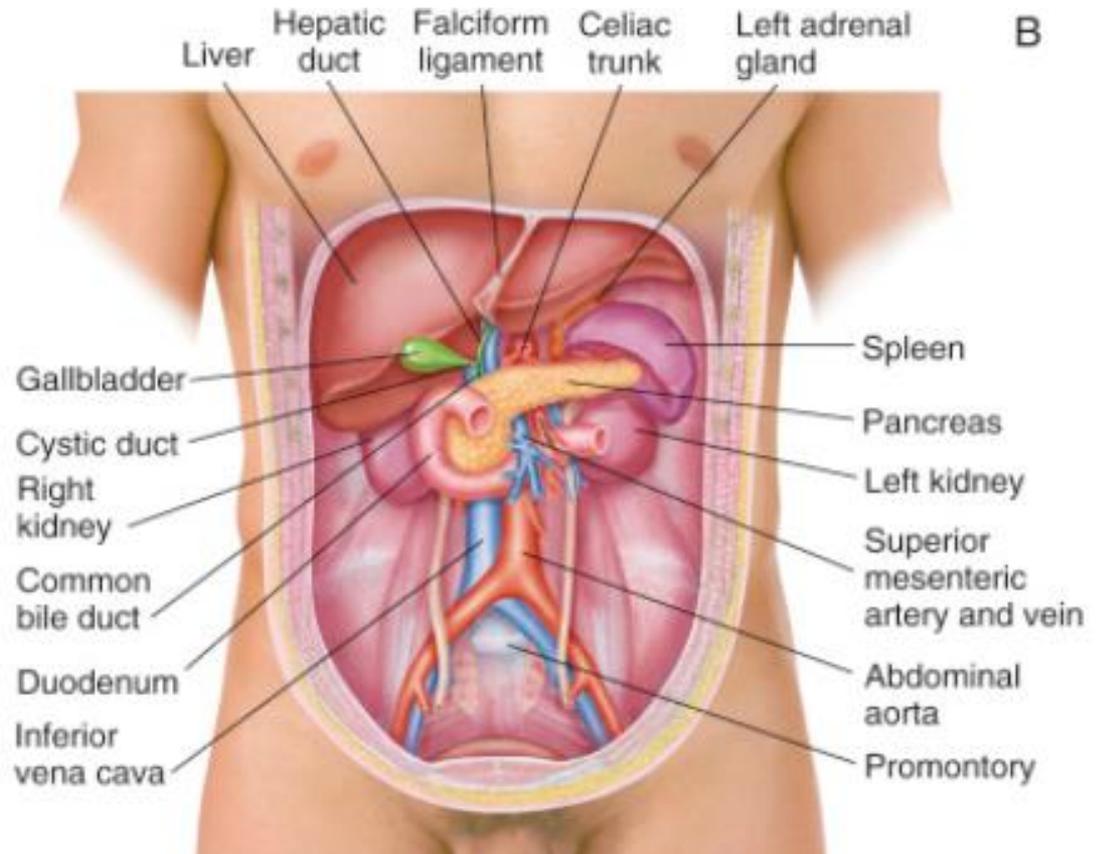
(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Accessory Organs

Accessory Organs include:

- Liver
- Pancreas
- Gallbladder

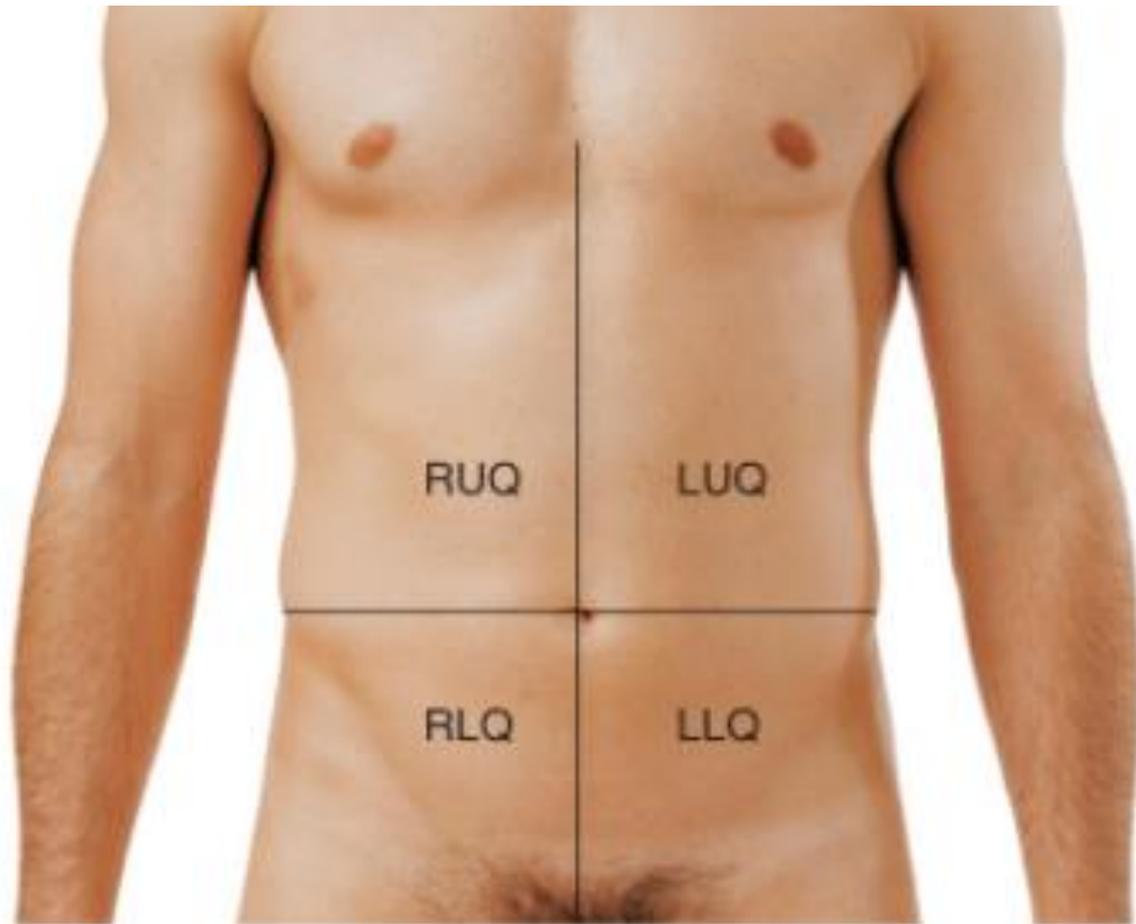


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Abdominal Quadrants

The abdomen is divided into four quadrants:



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Patient History

(S) Subjective: What the patient tells you.

- Chief Complain (CC)
- History of present illness (HPI)
 - OLDCARTS



Past Medical and Surgical History

- PMHx and PSurgHx
 - Chronic medical conditions
 - Hospitalizations/
review previous sick call visits
 - Surgeries
 - Medications
 - Allergies



(From Limmers, H.M. and others. [2016]. Emergency Care[13th ed.]. Pearson: O'Keefe.)



Family History

- History of IBS, IBD
colon/gastric cancers



(From Limmers, H.M. and others. [2016]. Emergency Care[13th ed.]. Pearson: O'Keefe.)



Social History

- Tobacco
- Alcohol
- Dietary habits
- Travels



(From Limmers, H.M. and others. [2016]. Emergency Care[13th ed.]. Pearson: O'Keefe.)

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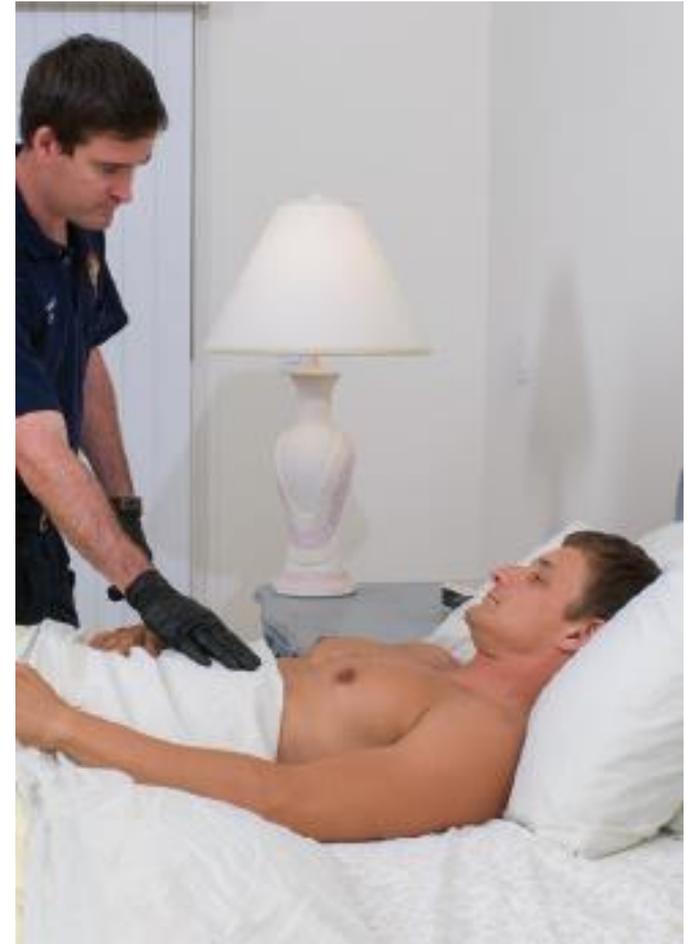
Relevant, Responsive, Requested

2.4-2-11



Review of Systems

- Respiratory
- Gastrointestinal
- Cardiac
- Urinary
- Genitourinary
- Musculoskeletal
- Psychiatric

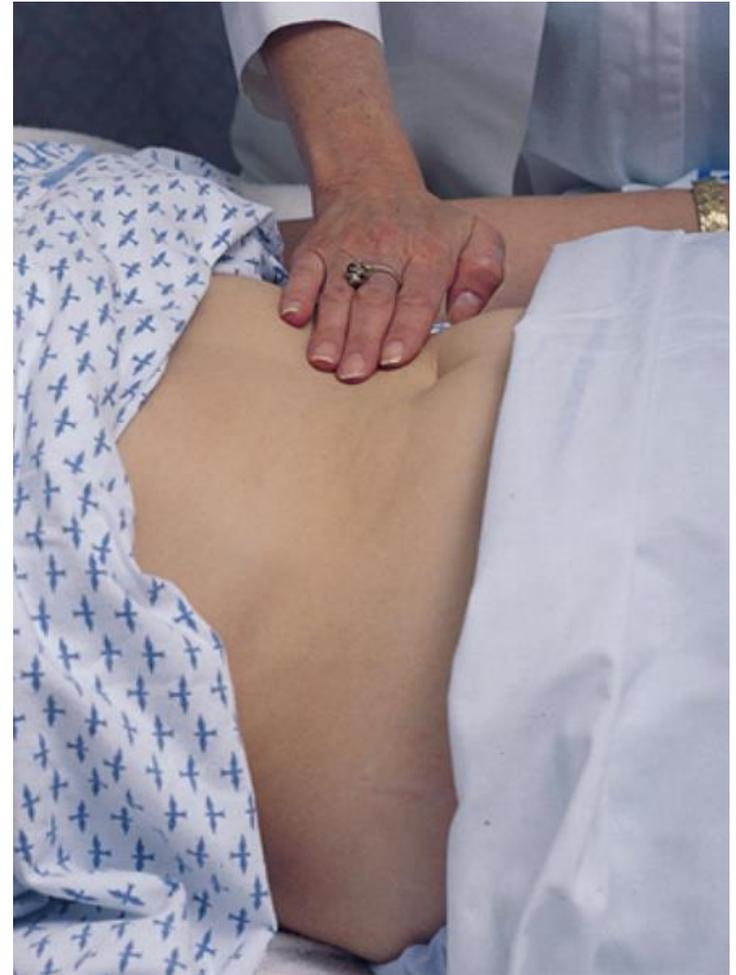


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Examination Order

- Examine in the following order
 - Inspect
 - Auscultate
 - Percuss
 - Palpate



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Abdominal Examination

- Note patient's appearance
- Vital Signs
- HEENT
- Neck
- Lungs
- Heart
- Abdomen
- Back
- GU
- Rectal
- EXT



Inspection

- Inspection/ Observation
 - Contour
 - Skin
 - Umbilicus



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Auscultation

- Bowel Sounds
- Listen to all four quadrants
- If no sound for 2-3 minutes then can be classified as absent

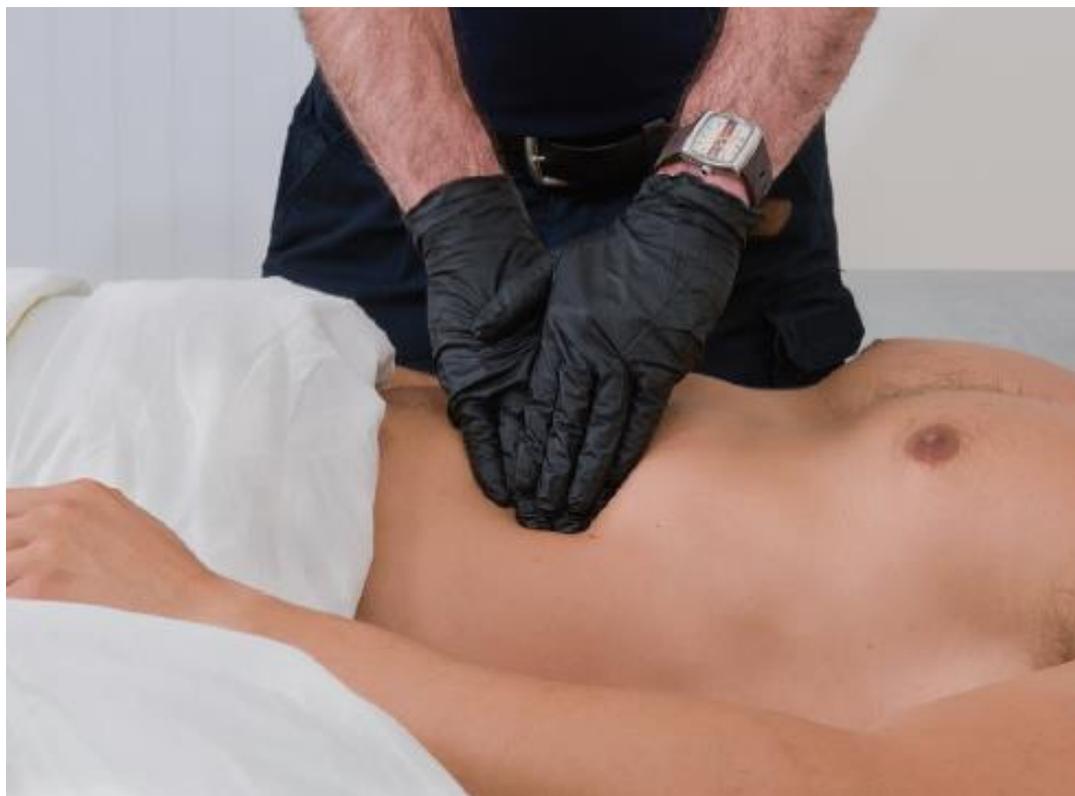


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Palpation

- Light
- Deep



(From Limmers, H.M. and others. [2016]. Emergency Care[13th ed.]. Pearson: O'Keefe.)



Palpation (Cont.)

- Items to check
 - Guarding
 - Intra-abdominal Masses



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Special Examinations

- Items to check
 - Rebound Tenderness
 - Rovsing's Sign
 - Psoas Sign
 - Obturators Sign
 - Murphy's Sign
 - CVA Tenderness
 - Heel Jar

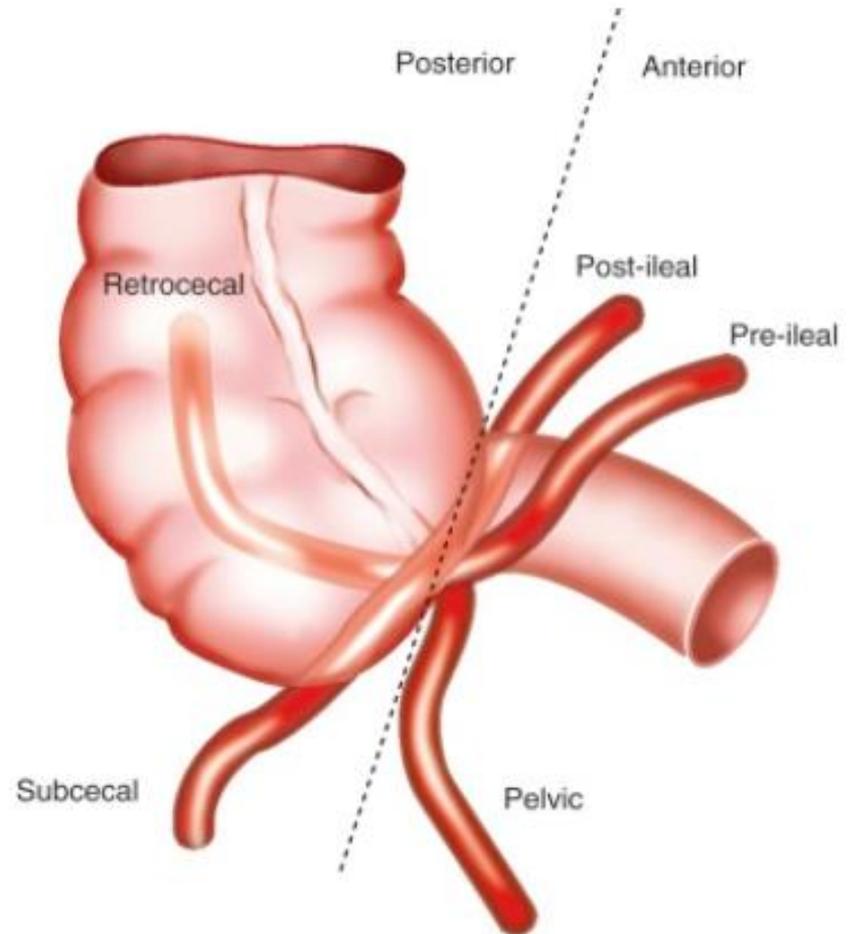


(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Appendicitis

- Constant pain that intensifies
- Migrates/localizes to the RLQ of the abdomen



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Appendicitis (Cont.)

- Signs and Symptoms
 - Pain
 - Fever
 - Tenderness at RLQ McBurneys Point
 - Positive Rovsing, heel jar, obturator, psoas



Appendicitis (Cont.)

- Plan
 - Nothing by mouth
 - Refer to medical provider immediately
 - Hospitalization



Acute Cholecystitis

- Inflammation of the gallbladder and biliary tree
- Resulting from an obstruction of the biliary by a gallstone.



Acute Cholecystitis (Cont.)

- Signs and Symptoms
 - Localized Pain at RUQ
 - Clay colored Stool
 - Nausea
 - Vomiting
- Plan
 - Internal medicine
 - Surgical referral/intervention is indicated.



Peptic Ulcer Disease

- Ulceration of the lining of the stomach or duodenum due to hyperacidity



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Peptic Ulcer Disease (Cont.)

- Signs and Symptoms
 - Epigastric Burning
 - Heartburn
 - Substernal Pain
- Plan
 - Refer to medical provider
 - Peptic ulcer disease/GERD
 - Perforated bowel/viscus

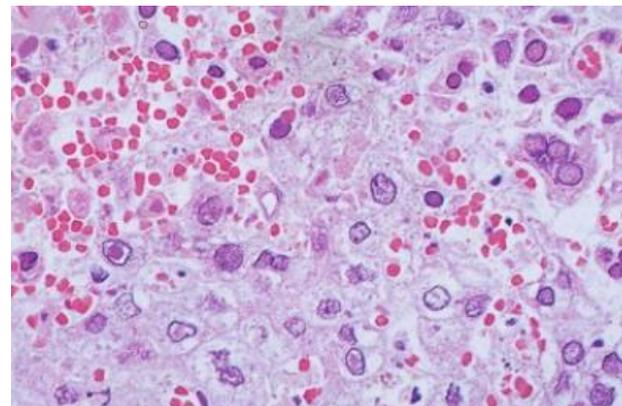


(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Acute Gastroenteritis

- The most common cause of nausea, vomiting and diarrhea.
- Pain
 - Located across the lower abdomen
 - Cramping in nature
 - Can be severe



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Acute Gastroenteritis (Cont.)

- Signs and Symptoms

- Hyperactive Bowel Sounds
- Severe Nausea
- Abdominal Cramping

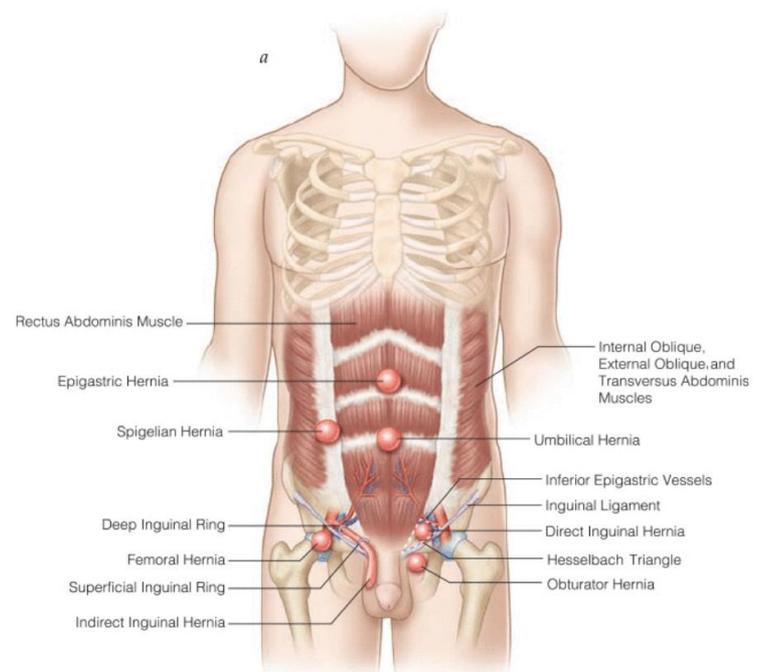
- Plan

- Hydration, if tilt positive
- Anti-nausea medications (Phenergan IM)
- Clear liquid diet for 24 hours
- Increased/forced oral hydration, when capable
- Refer to medical officer, if severe



Hernia

- A protrusion or projection of an organ or a part of an organ through the wall of the cavity that normally contains it



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Hernia (Cont.)

- Plan
 - Inspect for incarceration of hernia
 - Refer to Medical Officer.



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Hemorrhoids

- Increased venous pressure in the veins of the rectum
- Characterized as either Internal or External
- Most often caused by:
 - Straining to stool
 - Prolonged sitting
 - Pregnancy
 - Obesity



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



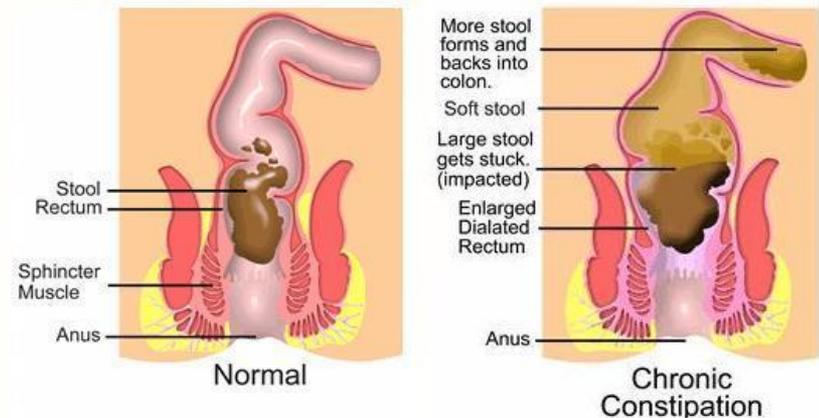
Hemorrhoids (Cont.)

- Signs and Symptoms
 - Bright red blood per rectum
 - Mucoïd discharge
 - Rectal irritation
 - Soiling of undergarments
- Plan
 - Increase fiber intake, decrease strain during defecation
 - Increase water intake
 - Aunsol, Sitz bath, or Surgical Excision



Constipation

- Two or fewer bowel movements per week or excessive straining with defecation
- Constipation is caused by the following:
 - Poor diet intake of fiber
 - Inadequate fluid intake
 - Medication or systemic diseases

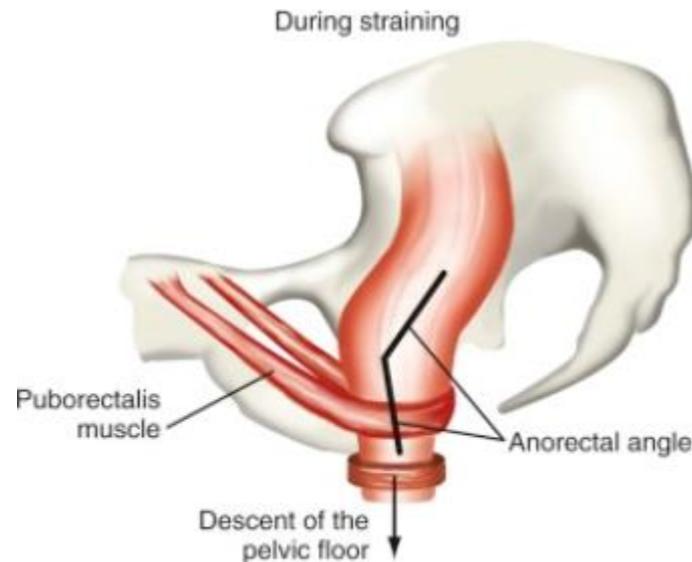


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Constipation (Cont.)

- Plan
 - Provide proper diet education
 - Stool softeners or osmotic laxatives can be given.

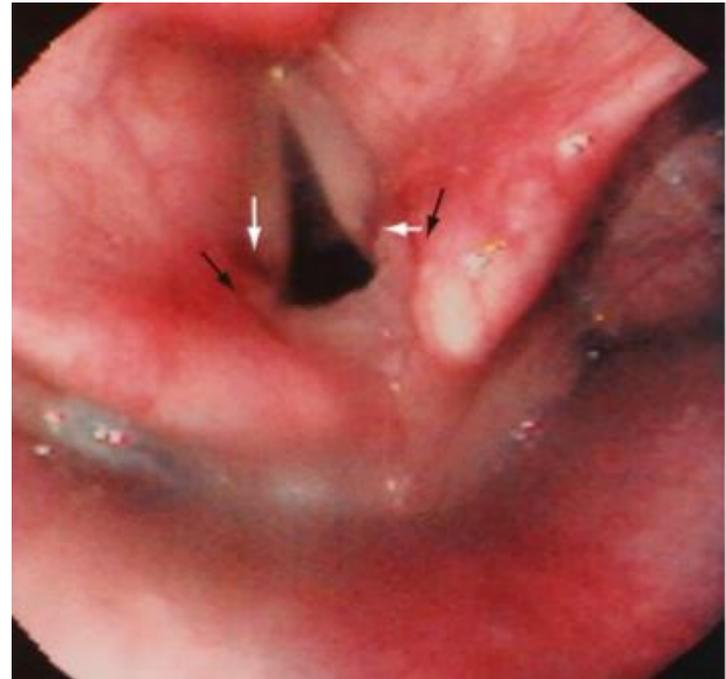


(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Gastroesophageal Reflux Disease

- Is the reflux of stomach acid into the esophagus



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Gastroesophageal Reflux Disease (Cont.)

- Signs and Symptoms
 - Heartburn
 - Regurgitation of sour or bitter stomach acid.
- Plan
 - Requires lifestyle change
 - Medication therapy (antacids, proton pump inhibitors).
 - Avoid foods that relax the esophageal sphincter (fatty foods, peppermint, chocolate, alcohol)



Anal Fissure

- Linear or rocket-shaped ulcers that are usually less than 5mm in length.



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



Anal Fissure (Cont.)

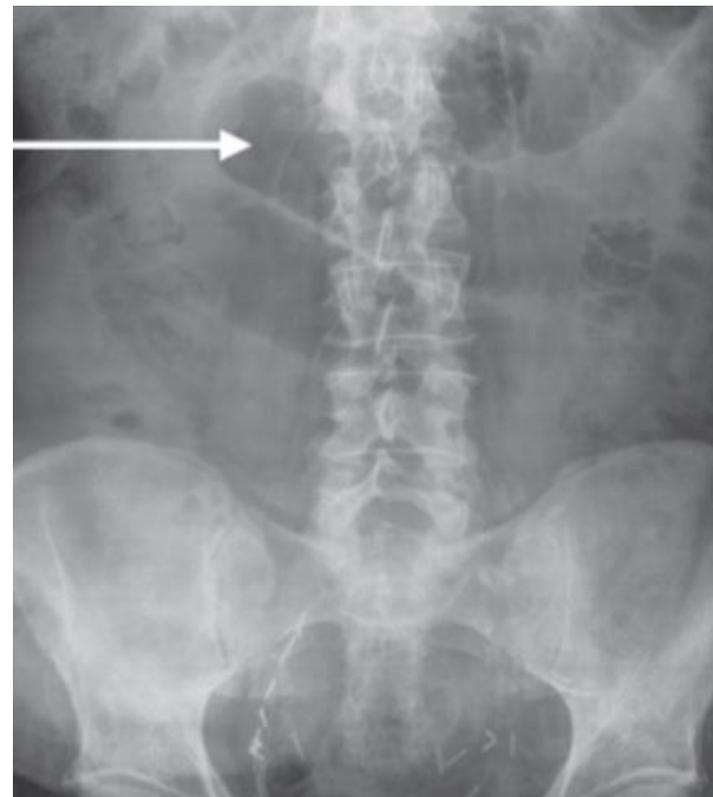
Anal Fissure

- Signs and Symptoms
 - Tearing pain
 - Hematochezia
 - Visual confirmation
- Plan
 - Medical management
 - Fiber Supplements
 - Topical Anesthetics



Bowel Obstruction

- Occurs in either sex, at any age, and from a variety of causes
- Classified as mechanical or nonmechanical
 - Mechanical
 - A disorder outside the intestines
 - Blockage inside the lumen of the intestines
 - Nonmechanical
 - When muscle activity of the intestine decreases and movement of contents slows



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



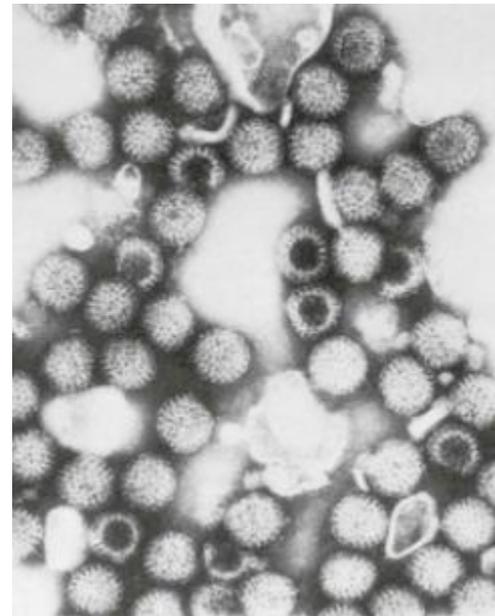
Bowel Obstruction (Cont.)

- Signs and Symptoms
 - Cramps
 - Intermittent and wavelike abdominal pain
 - Distention
 - Hyperactive or absent bowel sounds
 - Emesis
- Plan
 - IV Fluids
 - Electrolytes
 - Antibiotics
 - Surgery



Diarrhea

Can range in severity from an acute self-limited episode to a severe injury.



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrons Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



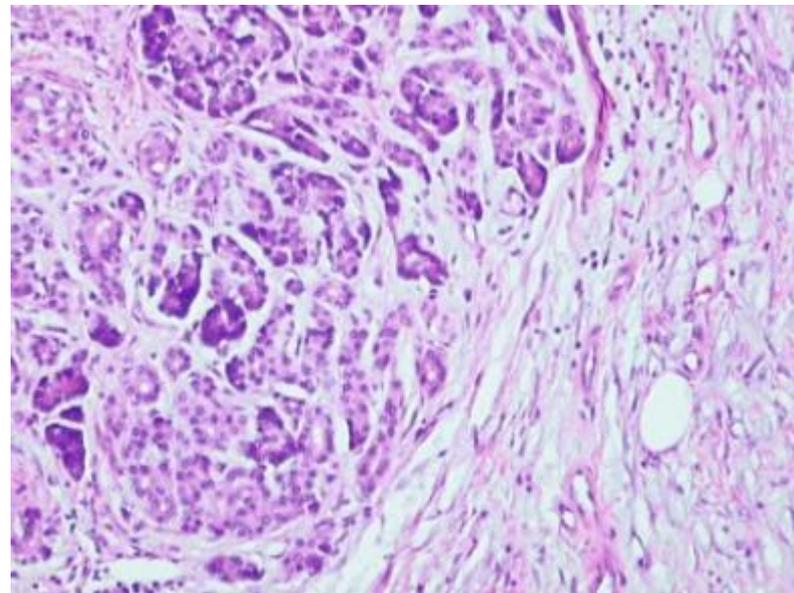
Diarrhea (Cont.)

- Signs and Symptoms
 - Fever
 - Bloating
 - Nausea
 - Vomiting
 - Bloody stool
 - Abdominal Pain
 - 6 or more unformed stools in 24 hours
- Plan
 - Diet
 - Rehydration
 - Anti-Diarrheal Agents
 - Antibiotic Therapy



Pancreatitis

Abrupt onset of deep epigastric pain, often with radiation to the back, often related to a biliary tract disease or heavy alcohol intake.



(From Sleisenger, Fordtran and others. [2016]. Sleisenger and Fordtrans Gastrointestinal and Liver Disease [10th ed.]. Open Athens)



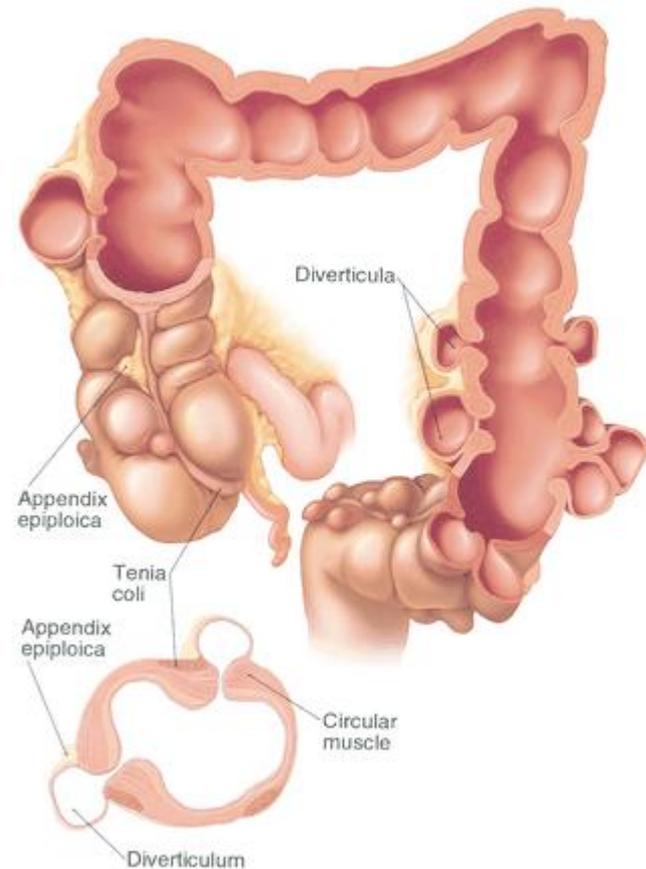
Pancreatitis (Cont.)

- Signs and Symptoms
 - Abdominal Pain
 - Nausea
 - Vomiting
 - Weakness
 - Sweating
 - Anxiety
- Plan
 - Mild cases can resolve spontaneously within a few days
 - IV fluid resuscitation
 - Pain reliever medication
 - In severe cases hospitalization is required



Diverticulitis

An inflammation or infection in one or more small pouches in the digestive tract.



(From Bates, L.B. and others. [2017]. Bates guide to physical examination and history taking [12th ed.]. Philadelphia, PA.)



Diverticulitis (Cont.)

- Signs and Symptoms
 - Localized inflammation
 - LLQ
 - Nausea
 - Constipation
 - Nausea
 - Vomiting
 - Low-grade fever
 - Leukocytosis
- Plan
 - Pharmacological Therapy
 - Clear liquid diet
 - Surgery



Red Flag Criteria

- The following are Gastrointestinal System red flag finding:
 - Significant MOI
 - Diffuse abdominal pain
 - Extreme tenderness
 - Severe guarding
 - Rigidity
 - Distention
 - Diminished Bowel Sounds
 - Rebound Tenderness
 - Positive F.A.S.T. exams



(From Seidel, H.M. and others. [2006]. Mosby's guide to physical examination[6th ed.]. St. Louis: Mosby.)



Summary and Review

- 1.28 Utilize the knowledge of gastrointestinal system anatomy while assessing a patient with a gastrointestinal complaint
- 1.29 Utilize the knowledge of gastrointestinal system physiology while assessing a patient with a gastrointestinal complaint
- 1.30 Obtain history from patient with common gastrointestinal disorders
- 1.31 Perform an abdominal examination
- 1.32 State signs and symptoms of common abdominal disorders
- 1.33 State treatments for common gastrointestinal disorders
- 1.16 State Red Flag criteria



Questions



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Relevant, Responsive, Requested

2.4-2-49



Application

Job Sheet SCSC 2.4-3, Gastrointestinal System Lab

SCSC Performance Test 5