Chapter 18
Gastrointestinal and Urologic Emergencies (Acute Abdomen)

Abdominal Pain
• Common complaint
• Cause is often difficult to identify; not ________________ to determine cause
• Need to recognize life-threatening problems and act swiftly

Abdominal Cavity
Contains:
• Gastrointestinal system
• Genital system
• Urinary system
• Made up of _________________ and hollow organs

Solid Organs
• Liver
• Spleen
• Pancreas
• Kidneys
• Ovaries
• Injury to a solid organ can cause _________________ and bleeding.

Hollow Organs
• Gallbladder
• Stomach
• Small intestine
• Large intestine
• Urinary bladder
• Breach into hollow organs causes contents to leak and contaminate abdominal cavity.

Abdominal Organs
Hollow Organs Solid Organs

Gastrointestinal System
1. Mouth (saliva)
   - Esophagus
   - Stomach
   - Liver

2. Gall Bladder
   - Small Intestine
   - Large Intestine (Colon)
   - Spleen

8. **Physiology of the Abdomen (1 of 2)**
   - Sudden onset of abdominal pain
   - Peritoneum
     - Thin membrane lining the entire abdomen
   - Colic
     - Severe, intermittent ____________________________ pain
     - Normal complaint in acute abdomen

9. **Physiology of the Abdomen (2 of 2)**
   - Referred pain
     - Perceived pain at a distant point of the body caused by irritation of the visceral ____________________________
   - Peritonitis
     - Irritation of the peritoneum caused by illness or injury
     - Commonly cause by spilling of contents from hollow organs

10. **Abdominal Pain**
    - Two types of nerves supply peritoneum.
    - Parietal peritoneum is supplied by same nerves that supply ____________________________ of abdomen.
      - Perceive pain, touch, pressure, heat, cold
    - Visceral peritoneum is supplied by ____________________________ nervous system.
      - Produces referred pain

11. **Referred Pain**

12. **Causes of Acute Abdomen**
    - Nearly every kind of abdominal problem can cause an acute
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- Substances lying in or __________________________ to the abdominal cavity

13 □ Ulcers
- Protective layer of mucus lining erodes, allowing acid to eat into organ.
- May lead to gastric bleeding
- Some heal without intervention.
- Pain in the __________________________ mid-abdomen or upper part of back

14 □ Gallstones
- Gallbladder stores digestive juices and waste from liver.
- Gallstones may form and block outlet.
- Lead to __________________________
- Causes pain to right upper quadrant and referred pain to right shoulder

15 □ Pancreatitis
- Inflammation of the pancreas
  - Caused by obstructing gallstone, alcohol abuse, or other diseases
- Pain to upper abdomen (both quadrants) and back
- Nausea, vomiting, abdominal distention
- __________________________ or hemorrhage may occur.

16 □ Appendicitis
- Inflammation or infection in the appendix
- Nausea, vomiting, fever, chills
- Direct pain to __________________________ lower quadrant with referred pain around navel
- __________________________ tenderness

17 □ Gastrointestinal Hemorrhage
- Bleeding within __________________________ tract
- May be acute or chronic
- Location of pain depends on cause
Location of pain depends on cause
● Symptom of another disease

18  Esophagitis
● Lining of ________________ becomes inflamed by infection or acids from the stomach.
● Pain in swallowing, heartburn, nausea, vomiting, sores in mouth
● Common complaint of something “stuck in throat”
● Gastroesophageal reflux disease (GERD)

19  Esophageal Varices
● Capillary network in esophagus leaks.
● Fatigue, weight loss, jaundice, anorexia
● ________________ is a main cause
● Major rupture can cause severe blood loss and shock

20  Mallory-Weiss Syndrome
● Junction between esophagus and ________________ tears causing severe bleeding.
● Vomiting is principal symptom.
● Extent of blood loss can range from minor to major

21  Gastroenteritis
● Infection from bacterial or viral organisms in contaminated food or water
● ________________ is principal symptoms
● Normally runs it course in 2 to 3 days
● Can lead to dehydration and shock

22  Diverticulitis
● Fecal matter becomes caught in ________________ walls, causing inflammation and infection.
● Fever, malaise, body aches, chills
● Pain to left lower quadrant

23  Hemorrhoids
● Created by ________________ and inflammation of blood
vessels surrounding rectum

- Bright red blood during defecation

24 **Urinary System**

- Kidneys can be affected by stones that form from materials normally passed in the urine.
- Kidney stones normally present as __________________________ pain on side of stone
- Kidney infections can cause severe pain.
- Patients are often quite ill, with a high fever.
- Bladder infection (cystitis) more common, especially in women.
- Patients usually have lower abdominal pain.

25 **Kidneys**

- Acute kidney failure
  - Sudden decrease in kidney function
  - Reversible with prompt diagnosis and treatment
- Chronic kidney failure
  - Progressive and irreversible damage
  - Eventually __________________________ is required.

26 **Uterus and Ovaries**

- Always consider a __________________________ problem with women having abdominal pain.
- Causes of pain
  - Menstrual cycle
  - Pelvic inflammatory disease
  - Ectopic pregnancy

27 **Abdominal Aortic Aneurysm (AAA)**

- Aorta lies immediately behind peritoneum.
- Weak areas can result in abdominal aortic aneurysm (AAA).
- AAA is difficult to detect.
- Use extreme __________________________ when assessing or detecting.
- Can cause massive bleeding and instant death
- Common presents as flank pain
Pneumonia

- May cause ileus and abdominal pain
- Since the lungs lie in an adjacent body cavity, the intense inflammatory response can reflect in the ______________________
- Predominant in lower lobe pneumonia

Signs and Symptoms of Acute Abdomen (1 of 3)

- Ileus
  - ______________________ of muscular contractions in the intestine
  - Causes abdominal distention
- Nothing can pass normally out of stomach or bowel.
- Stomach can only empty through vomiting.
- Almost always associated with nausea and vomiting

Hernia

- Hernia
  - Protrusion of an ______________________ through an opening into a body cavity where it does not belong
  - May not always produce a noticeable mass or lump
  - Strangulation is a serious medical emergency

Hernia

- Serious hernia signs and symptoms:
  - A formerly reducible ______________________ that is no longer reducible
  - Pain at the hernia site
  - Tenderness when the hernia is palpated
  - Red or blue skin discoloration

Signs and Symptoms of Acute Abdomen (2 of 3)

- Abdominal pain and/or tenderness
- Quiet patient guarding the abdomen (shock)
- Rapid and shallow breathing
- Referred (distant) pain
- ______________________, nausea, vomiting
Signs and Symptoms of Acute Abdomen (3 of 3)
- Tense, often distended abdomen
- Sudden ______________________ or bloody diarrhea
- Tachycardia
- Hypotension
- Fever
- __________________________ tenderness

Examining the Abdomen
- Explain what you are about to do.
- Position the patient supine with legs drawn up and knees flexed.
- Observe the patient.
- Gently palpate the abdomen (all 4 quadrants).
- Determine if the patient can relax the abdominal wall on command.
- Determine if abdomen is __________________________ when palpated.

Emergency Medical Care (1 of 3)
- Take steps to provide comfort and lessen effects of shock; reassure patient.
- Position patients who are vomiting to maintain ______________________.
- Be sure to use BSI.
- Clean ambulance and equipment once patient is delivered.

Emergency Medical Care (2 of 3)
- Do not delay transport.
- Do not attempt to ______________________.
- Clear and maintain the airway.
- Anticipate vomiting.
- Administer oxygen.
- Give nothing by mouth.

Emergency Medical Care (3 of 3)
- Document all pertinent information.
- Anticipate the development of ______________________ shock.
- Make the patient comfortable.
- Monitor vitals signs.
Geriatric Needs
- Decreased pain perception
- May not have __________________________ with infection
- May delay seeking care because pain is minimal
- Assess carefully.

Kidney Dialysis (1 of 2)
- Only definitive treatment for chronic kidney failure
  - Dialysis filters blood, cleans it of __________________________, and returns it to body.
  - If patient misses dialysis treatment, pulmonary edema can occur.
- Some services transport patients to and from dialysis centers.

Kidney Dialysis (2 of 2)
- Dialysis machine functions much like normal kidneys.
- Adverse effects of dialysis:
  - __________________________
  - Muscle cramps
  - Nausea and vomiting
  - Hemorrhage from access site
  - Infection at access site

Special Precautions for Dialysis Patients (1 of 2)
- Most are diabetics; beware of low blood sugar
- Most have a __________________________ (fistula) which is an artificial connection (graft) between a vein and artery that is usually located in the forearm upper arm

Special Precautions for Dialysis Patients (2 of 2)
- Avoid taking a __________________________ on arm with fistula to avoid increased in pressure
- Transport to a facility with dialysis capabilities
- Monitor blood sugar