Differentials

Eyes
Red Flags

• Sudden, marked eye pain
• Visible flashes followed by partial, peripheral vision loss
• Developing tunnel vision or a central blind spot
Eye Pain

• What conditions would present with eye pain as a symptom?
Conjunctivitis
(Pink Eye)

- Typical biographical profile OR onset, circumstances and course- following contact in daycare, schools & institutions; with seborrhea and rosacea
- Symptom characteristics- red, burning, itching eye(s)
- Aggravating and alleviating activities- bright lights (photophobia)
- Physical findings- typical conjunctival injection, slight pain, purulent discharge and the lids may stick together during sleep; pupils and visual acuity are normal
- Diagnostic studies- usually unnecessary

- Unilateral or bilateral onset?

- Conjunctivitis is the most common ocular condition seen by primary care physicians
Allergic Conjunctivitis

- **Similar features:**
  - Painful, red eyes with unaffected acuity and pupils

- **Distinguishing features:**
  - Persistent or seasonal episodes; other associated allergic complaints or known hay fever, allergic rhinitis and asthma

- **Itching:** key feature, unusual to have allergic conjunctivitis without it
Corneal Abrasion

• **Similar features:**
  - Painful, red eye(s)

• **Distinguishing features:**
  - The patient reports an eye injury, marked pain, photophobia and perilimbal injection or a circumcorneal flush in **one eye**; **decreased visual acuity is dependent on the extent of damage**

• Risk factors: occupation, contact lenses, dusty environments, dry eye condition, lack of eye protection
Acute Iritis/Anterior uveitis

• **Similar features:**
  • Painful, red eye(s)

• **Distinguishing features:**
  • The patient reports marked pain, photophobia in **one eye**; perilimbal injection and pupillary responses are sluggish in that eye; it may be secondary to eye trauma
  
  • Seen in: physical trauma, inflammatory and connective tissue diseases, infections
Acute Glaucoma

• **Similar features:**
  - Painful, red eye(s)

• **Distinguishing features:**
  - Patient reports marked pain, photophobia, dimmed vision and halos around lights; perilimbal injection, dilated pupil, sluggish pupillary responses, increase eyeball tension and disc cupping in **one eye**

• **POAG vs. NAG:** (primary open angle vs narrow angle)
  - Clogged drain vs. obstruction by the iris
  - (P)OAG most common
  - Increased IOP
Loss of Peripheral Vision

• What conditions would present with loss of peripheral vision as a symptom?
Chronic Glaucoma

- **Typical biographical profile**: adults > 40 y/o
- **Onset, circumstances and course**: insidious tunnel vision over the course of many years
- **Symptom characteristics**: slowly progressing tunnel vision in both eyes
- **Aggravating and alleviating activities**
- **Physical findings**: obvious tunnel vision checking peripheral field of vision; enlarged physiologic cup
- **Diagnostic studies**: tomometry and perimetry
Retinitis Pigmentosa

- **Similar features:**
  - insidious tunnel vision over the course of many years

- **Distinguishing features:**
  - May occur at a younger age than chronic glaucoma; retinopathy differs
  - Abnormalities of the rods and cones (dystrophy)
  - Black bone-spicule pigmentation is pathognomonic
Differentiate Optic Nerve Tract Lesions

• **Similar features:**
  • Peripheral vision loss
• **Distinguishing features:**
  • Quadrant or hemisphere visual loss
• **Causes?**
Differentiate Retinal Detachment

• **Similar features:**
  - Peripheral vision loss

• **Distinguishing features:**
  - Secondary to trauma or existing retinopathy; flashes of light or multiple new floater may precede progressive quadrant visual loss
Loss of Central Vision

- What conditions would present with loss of central vision as a symptom?
Central Cataract

- **Typical biographical profile** - adults > 40 y/o
- **Onset, circumstances and course** - insidious over the course of many years
- **Symptom characteristics** - slowly progressing central vision loss in one or in both eyes
- **Aggravating and alleviating activities** - none
- **Physical findings** - central shadow in the red reflex
- **Diagnostic studies** - ophthalmology consult
- **Risks** - aging and eye surgeries and injuries
Differentiate Corneal Scar

• **Similar features:**
  - central vision loss

• **Distinguishing features:**
  - History of corneal injury
Differentiate Macular Degeneration

• **Similar features:**
  - slowly progressing central vision loss in one or in both eyes
• **Distinguishing features:**
  - Altered color and configuration of the macula/fovea

  • **Dry and wet forms:** presence of exudate or not
  • **Drusen bodies**—are these indicative of only macular degeneration?
What’s the name of this exam?
Differentials

Ears
Red Flags

• Sudden or rapidly progressive hearing loss
• Vertigo
• Unilateral or pulsatile tinnitus
• Bleeding due to foreign object or pressure change injury
Presentation

Earache

• What conditions have earache as a symptom?
Otitis Externa

- **Typical biographical profile** - people with seborrhea or eczema of the ear or who irritate the canal excessively cleaning or swimming
- **Onset, circumstances and course** -
- **Symptom intensity, quality, location & distribution** - earache
- **Associated symptoms** -
- **Aggravating and alleviating activities** -
- **Physical findings** - red, swollen canal with canal debris or discharge; hearing likely normal
- **Diagnostic studies** - usually not necessary
Differentiate Auditory Tube Blockage

• **Similar features:**
  - Earache

• **Distinguishing features:**
  - Secondary to an upper respiratory infection, swollen adenoids or barotraumas; landmarks are prominent due to drum retraction; no signs of inflammation

• **PROBABLY THE MOST COMMON EARACHE CAUSE YOU’LL SEE**
Differentiate Suppurative Otitis Media

• **Similar features:**
  • Earache

• **Distinguishing features:**
  • Secondary to an auditory tube blockage; fever, diminished hearing, red and bulging tympanum with possible purulent discharge, most often in pre-schoolers; Weber lateralizes to and Rinne’s is negative on the affected side
Presentation

Diminished or Absent Hearing

• What conditions have hearing loss as a symptom?
  – Remind me to tell you a funny story about Silly Putty
Excessive Wax

• Typical biographical profile- Anyone possible, but more common in adult males

• Onset, circumstances and course- insidious or Q-tip use

• Symptom intensity, quality, location and distribution- hearing loss

• Physical findings- dark wax occluding the canal; Weber lateralizes to and Rinne´ is negative on the affected side

• Diagnostic studies- usually not necessary
Differentiate Serous or Mucoid Otitis Media (OME)

- **Similar features:**
  - Hearing loss

- **Distinguishing features:**
  - Secondary to auditory tube blockage; normal, yellow or dark tympanic membrane with possible air bubbles or fluid line; Weber lateralizes to and Rinne’s test is negative on the affected side; no signs of inflammation; can persist for extended periods

- **Risk factors:** URI
Differentiate Suppurative Otitis Media (Perforation)

- **Similar features:**
  - Hearing loss

- **Distinguishing features:**
  - Secondary to auditory tube blockage; fever, diminished hearing red and bulging eardrum with possible purulent discharge most often in pre-schoolers; Weber lateralizes to and Rinne´ is negative on the affected side
NEVER put liquid through a perforated TM
Differentiate Otosclerosis (sclerosis and fixation of the ossicles)

- **Similar features:**
  - Hearing loss

- **Distinguishing features:**
  - Familial trait; no abnormalities of the canal or eardrum; Weber lateralizes to and Rinne’s is negative on the affected side
cochlear otosclerosis
Meniere Disease

• **Similar features:**
  - Hearing loss

• **Distinguishing features:**
  - Familial trait; classic triad of hearing loss, vertigo, and tinnitus; no abnormalities of the canal or eardrum; Weber lateralizes to the unaffected side; Rinne’s is negative on the affected side—what happens to AC:BC?
Differentiate Noise Induced Hearing loss

• **Similar features:**
  - Hearing loss

• **Distinguishing features:**
  - Reported history of recreational or occupational noise exposure; no canal or middle ear signs; Rinne’s AC>BC but less than 2:1 ratio; **high frequencies 3000 to 6000 Hz are the first lost**
Differentiate Presbycusis (age related)

- **Similar features:**
  - Hearing loss

- **Distinguishing features:**
  - Older patient who complains that others are mumbling or that he/she can’t understand what’s being said when background noise is present; Rinne’s AC>BC but less than 2:1 ratio; low frequency sounds & whispers are first lost
Differential Diagnosis

Chest
Red Flag Lung Symptoms

- Unprovoked, sudden onset of dyspnea, and/or chest pain
- Persistent or escalating dyspnea or coughing provoked or aggravated by mild exertion
- Yellow, green, rusty, pink frothy or blood streaked sputum
- Any unexplained weight loss
Red Flag Lung Signs

- Diminished or absent breath sounds
- Displaced bronchial breath sounds (heard in vesicular locations)
- Dull, hyperresonant or tympanic percussive notes over the lung fields
Presentation

• What respiratory conditions could present with **acute** fever, dyspnea, and/or cough?
Acute Bronchitis

- **Typical Patient Profile** – preschoolers mostly, but anyone
- **Onset, circumstances and course** – often secondary to an URI
- **Symptom intensity, quality, distribution and duration** – fever, dyspnea and cough often secondary to a cold gradually wane within 7-14 days
- **Aggravating and Alleviating activities** – exertion
- **Physical exam findings** – possible coarse crackles and no other chest findings
- **Diagnostic Studies** – clinical findings; rarely x-ray
- “Chest cold” and exertional dyspnea
Differentiate Whooping Cough

• **Similar features**
  
  • Persistent, childhood cough, fever and malaise

• **Distinguishing features**
  
  • After a week or two the cough turns into severe coughing attacks (up to 15 in a row) that end with a high-pitched “whoop” during the next inspiration (stridor)
Differentiate Measles

- **Similar features**
  
  - Childhood cough, cold, and conjunctivitis

- **Distinguishing features**
  
  - Koplik’s spots appear 1-2 days before the minute maculo-papules, which rapidly coalesce
    - Koplik’s spots: bluish-white spot surrounded by red

- Rubeola: “hard measles” or “red measles”
- Rubella: “German measles” or “three day measles”
“Grains of salt on a wet background”
Differentiate Viral Pneumonia

• **Similar features**
• Most likely an adult with malaise, dyspnea cough

• **Distinguishing features**
• Fever persists beyond the expected 4-5 days; possible crackles and wheezes, CBC may help - clinical differentiation from acute bronchitis may be impossible

• Causes: influenza, RSV, herpes and varicella, adenovirus
Differentiate Bronchopneumonia

• **Similar features**
  - Fever, dyspnea and cough; possible crackles and wheezes

• **Distinguishing features**
  - Persistent scattered crackles, wheezes and malaise; labs (sputum sample) and x-ray

• AKA: Lobular pneumonia
  - Strep., staph., H. influenza, coliform, fungi
  - Secondary pneumonia: end of life or with other illnesses (cancer, renal failure)
Differentiate Lobar Pneumonia

- **Similar features**
  - Fever, dyspnea, and cough; possible crackles and wheezes prior to consolidation

- **Distinguishing features**
  - Higher fever, tachypnea, severe lethargy; **rusty** sputum, bronchial breath and spoken sounds transmitted better through the consolidation; increased fremitus and dull percussive note over that area; labs and x-ray

- Named for its lung distribution, **not** pathogen
- Strep., pseudomonas, Klebsiella
- Usually affects younger patients
Differentiate Influenza

• Similar features
• Fever, dyspnea, and cough; possible crackles and wheezes

• Distinguishing features
• Sudden onset, persistent higher fever, cough induced throat and/or chest pain; contact cases; positive serologic tests-

  clinical differentiation from acute bronchitis may be impossible
Presentation

• What respiratory conditions would present with **chronic** or **recurrent** dyspnea and cough?
Chronic Bronchitis

- **Typical Patient Profile** – 50 y/o adult exposed to cigarette smoke or pollution
- **Onset, circumstances and course** – Repeated attacks of a productive cough over several years
- **Symptom intensity, quality, distribution and duration** – chronic productive cough and exertional dyspnea
- **Aggravating and Alleviating activities** – Exertion
- **Physical exam findings** – scattered crackles and eventual wheezes
- **Diagnostic Studies** – clinical findings, labs, x-ray and spirometry

- “Dirty Chest” on x-ray
Differentiate Emphysema

• **Similar features**
  • Chronic productive cough and exertional dyspnea in an adult over 50

• **Distinguishing features**
  • May be impossible to clinically differentiate early stages, since it results in hyperinflated alveoli due to the bronchial fibrosis of chronic bronchitis; eventually general hyperresonant percussion and diminished fremitus occur; auscultation may reveal breath and spoken sounds with superimposed expiratory wheezes
Differentiate Secondary Tuberculosis

- **Similar features**
- Fever, dyspnea, and cough; possible wheezes

- **Distinguishing features**
- Persistent cough (blood stained), dyspnea and lethargy; history of contacts or prior TB diagnosis; labs and x-ray

- S.N.: primary TB is usually **asymptomatic**

- **If lung is fibrotic** - bronchial breath and spoken sounds are transmitted better through the consolidation, increased fremitus and dull percussive note over those areas may be heard
Lung tissue calcification resulting due to tuberculosis is seen as yellow patches in the chest region.
Differentiate Bronchiectasis

• **Similar features**
  - Chronic productive cough and exertional dyspnea in an adult over 50 (often secondary to the previous conditions)

• **Distinguishing features**
  - Bronchoscopy
  - S.N.: 50% of cases secondary to cystic fibrosis
Differentiate Bronchogenic Neoplasm

• **Similar features**
  - Chronic cough and dyspnea in an adult, smoker over 50

• **Distinguishing features**
  - Difficult to differentiate from smoker’s cough and other pneumonic conditions; x-ray, bronchoscopy and sputum cytology
Differentiate Left-Sided Congestive Heart Failure

- **Similar features**
  - Chronic cough and dyspnea in an adult, smoker over 50

- **Distinguishing features**
  - History of heart disease, high cholesterol and/or BP, fine basilar crackles, orthopnea, added heart beats and/or sounds
  - S.N.: Cor Pulmonale signs and symptoms may also be present with chronic lung disease
Differentiate Asthma

• **Similar features**
  - Dyspnea, cough, and chest tightness; scattered wheezes and crackles

• **Distinguishing features**
  - Allergy or exercise induced episodes of obstructive dyspnea usually beginning in early childhood

• Chest x-rays: Normal
Presentation

• What respiratory conditions would present with some degree of chest pain?
Pleuritis
(pleurisy)

• **Typical Patient Profile** – adults often with no history of lung problems

• **Symptom intensity, quality, distribution and duration** – sudden pleuritic pain

• **Onset, circumstances and course** - may be viral or follow serious lung pathology (mesothelioma)

• **Aggravating and Alleviating activities** – coughing, deep breathing or movement

• **Physical exam findings** – possible friction rub

• **Diagnostic Studies** – clinical findings and x-ray (lack of x-ray findings)

• **Cause**: usually viral, could be TB, cancer, SLE, RA
Differentiate Spontaneous Pneumothorax

- **Similar features**
  - Sudden, severe, continuous chest pain

- **Distinguishing features**
  - Dyspnea parallels lung compression; fremitus, breath and spoken sounds are diminished or absent; tympanic percussive note; x-rays confirm dx

- **Who?** Anyone, but taller and thinner body habitus is more common
Differentiate Pulmonary Embolus

- **Similar features**
  - Sudden, severe, continuous chest pain; possible shock

- **Distinguishing features**
  - History of phlebitis, prolonged sitting or bed rest; dyspnea marked, cyanosis; local crackles and wheezes aggravated by respiration or cough; hospital investigation

- **Risk Factors**: clotting disorders, immobilization, long bone fractures, atherosclerosis
Cardiac Red Flag Symptoms

- Sudden onset of unprovoked or exertional chest, arm, neck or jaw pain
- Persistent or escalating dyspnea and/or cough
- Heart palpitations
- Bilateral foot/leg edema
- Cyanosis
Cardiac Red Flag Signs

- Rapid, slow and/or irregular heart beat or pulse
- Diminished or absent pulse or heard bruit
- Added heart beats and/or sounds
- Sudden increase or drop in blood pressure
Presentation

• What cardiovascular conditions would present with some degree of chest pain?
Myocardial Infarct

- **Typical biographical profile**- middle aged or older, overweight, heavy smoker, diabetic, high BP, high LDLs, claudication; personal or family history of atherosclerosis, angina or infarct
- **Onset, circumstances and course**- may be unprovoked
- **Symptom location, quality and distribution**- severe, continuous, substernal pain or tightness radiating to the arms, neck or jaws
- **Associated symptoms**- dyspnea; pale, perspiring and apprehensive
- **Aggravating and alleviating activities**- exertion; unrelieved by rest
- **Physical findings**- shallow, rapid or irregular pulse; drop in BP
- **Diagnostic studies**- EKG confirms
Differentiate Angina Pectoris

- **Similar features**
- Exertion induced chest, arm or neck pain
- **Distinguishing features**
- Rest relieves the recurring episodes of discomfort
Differentiate Pericarditis

- **Similar features**
- Chest pain
- **Distinguishing features**
  - “Sticking” in nature- worse with deep breaths, coughing or twisting; friction rub consistent with the heart beat; hospital investigation

- Sounds very much like???
Differentiate Dissecting Aneurysm

- **Similar features**
  - Sudden, **severe**, continuous chest pain that may radiate to the arms or jaw

- **Distinguishing features**
  - Impossible to differentiate clinically; immediate hospital investigation
Presentation

• What gastrointestinal conditions would present with some degree of chest pain?
Differentiate GERD

• **Similar features**
  - Postprandial, persistent, burning chest pain

• **Distinguishing features**
  - Recurrent, position related (lying) rather than exertional episodes; antacids relieve; eventually associated dysphagia (food sticking sensation); difficult clinical DD
Differentiate Chronic Cholecystitis Episode

• **Similar features**
  • Low substernal chest pain

• **Distinguishing features**
  • Episodic pain follows fatty meals and may radiate to the right scapula; positive Murphy’s sign; imaging confirms if stones are present (cholelithiasis/choledocolithiasis/cholangitis)

• Do all gallstones show up on plain film?
  • US, CT, HIDA scan, ERCP
Differentiate Peptic Ulcer

- **Similar features**
  - Low substernal chest pain which may radiate through to the back

- **Distinguishing features**
  - Food and antacids relieve the pains
Differential Diagnosis

Abdomen
Gastrointestinal Red Flag Symptoms

- 1. Unexpected weight loss or rapid weight gain and pitting edema
- 2. Bloody or coffee ground vomit
- 3. Black or gray-colored stools; mucous, pus or blood in the stools
- 4. Pencil thin, ribbon-like stools or persistent constipation or diarrhea
- 5. Jaundice
6. **An acute "surgical" abdomen** – A patient who reports a history of sudden, severe, persistent, escalating or writhing abdominal pain has a presentation that often indicates the need for hospital investigation and emergency surgical intervention. The source of the pain is often due to *inflammation, perforation, obstruction, infarction or rupture of intra-abdominal organs*. Examples are acute cholecystitis, appendicitis, perforated peptic ulcer, strangulated hernia, superior mesenteric artery thrombosis, and splenic rupture.
Gastrointestinal Red Flag Signs

- Unexplained abdominal distention or masses
- Visible peristalsis or pulsatile masses
- Absent or hyperperistaltic sounds
- Organomegaly and/or chronic fatigue
Presentation

• What common abdominal conditions would present with abdominal pain, vomiting and diarrhea?
Abdominal Pain, Vomiting and Diarrhea

**Acute Gastroenteritis** (Stomach Flu)

- **Typical Patient Profile** – no specific profile
- **Initial onset, circumstances and course** – recently; may have been exposed to others with the diagnosis
- **Symptom intensity, quality, location and distribution** – mild, ache located around the umbilicus that worsens with peristalsis
- **Associated symptoms** – nausea, vomiting and diarrhea
- **Aggravating and alleviating activities** – worse eating and better not eating
- **Physical exam findings** – clicks and gurgles in the high normal range
- **Diagnostic Studies** – usually unnecessary; diagnosis via clinical finding

- Causes: 50-70% noroviruses; rotovirus (mc in kids); adenovirus, parvovirus; E. coli, salmonella, shigella, campylobacter, parasites
- You are contagious for at least 3 days (and up to two weeks) after symptoms
Differentiate Food Poisoning

- **Similar features:**
  - diarrhea, vomiting and abdominal pain

- **Distinguishing features:**
  - differentiation is difficult clinically; others who ate the same food also have the symptoms; stool culture may identify a pathogen
Differentiate Morning Sickness

- Similar features:
  - diarrhea, vomiting and abdominal pain
- Distinguishing features:
  - Difficult differentiation; known pregnancy or positive pregnancy test

- Other DDX? Peptic ulcers
- Is it really MORNING sickness?
Differentiate Hepatitis

• **Similar features:**
  • Bout of abdominal pain and vomiting

• **Distinguishing features:**
  • Recurring bouts following a history of possible oral-fecal or co-mingled blood transmission; urine is dark and stools are grey; AST, ALT and alkaline phosphatase levels may indicate liver damage
5 types of hepatitis

• Hepatitis A (HAV): contaminated food or water, oral-fecal contact; hepatomegaly acutely, but usually full recovery
• Hepatitis B (HBV): bodily fluid contacts (STD, needles, bites, sharing personal items, passed from mother to newborn); SERIOUS illness, chronic hepatomegaly; is a risk factor for cancer (MOST COMMON in US)
• Hepatitis C (HCV): same transmission as HBV; similar illness presentation, possible infection, leading to scarring and cirrhosis
• Hepatitis D (HDV): opportunistic infection if you already have HBV; same transmission
• Hepatitis E (HEV): uncommon in the US; contaminated water, oral-fecal contact; usually full recovery
Differentiate Irritable Bowel Syndrome

• **Similar features:**
  • Bouts of abdominal pain and diarrhea

• **Distinguishing features:**
  • Recurrent bouts of diarrhea and constipation (altered bowel habits); usually young to middle age; may have a history of low fiber diet and overuse of laxatives (self-treatment, not thought to be causative)
Differentiate Crohn’s Disease

• **Similar features:**
  - Bouts of abdominal pain and diarrhea

• **Distinguishing features:**
  - Young adults; recurring bouts indicates the need for a CBC, upper GI study and/or colonoscopy

• Features: skip lesions, cobblestoning, affects any portion, but MC in ileum
Differentiate Ulcerative Colitis

- **Similar features:**
  - Recurrent bouts of diarrhea

- **Distinguishing features:**
  - Young adults; recurring bouts of minimal abdominal pain with mucous, pus or blood streaked diarrhea, which indicates the need for colonoscopy

- Features: granulation, loss of haustra, usually in the large bowel, so diarrhea
Differentiate Clostridium Difficile Colitis

• **Similar features:**
  • Recurrent bouts of diarrhea

• **Distinguishing features:**
  • History of recent antibiotic therapy
    – Older, health care setting, underlying illness
  • Need to do a toxin assay to detect the toxin the bacterium produces in a stool specimen
  • Profuse, watery, foul-smelling diarrhea
Differentiate Cholera

• **Similar features:**
  • Recurrent bouts of diarrhea

• **Distinguishing features:**
  • Exposure to poor sanitation and water purification; need a stool culture or cholera dipstick to differentiate; can be fatal within 24 hrs. if there is profuse diarrhea

• “Boil it, cook it, peel it, or forget it.”
Differentiate Colon Cancer

- **Similar features:**
  - Possible abdominal pain and diarrhea

- **Distinguishing features:**
  - Persistent, escalating, colicky abdominal pain; mucous or blood in stools; 50+ males; palpable mass sometimes; need colonoscopy to differentiate
Presentation

• What common abdominal conditions would present with upper abdominal pain (heartburn)?
GASTROESOPHAGEAL REFLUX DISEASE (GERD)

- Hiatal hernias may be a factor contributing to the incompetent esophageal sphincter
- Typical Patient Profile – adult, male or female
- Initial onset, circumstances and course – slow intermittent progression over a few years period
- Symptom intensity, quality, distribution and duration – recurrent, frequent, substernal “heartburn” about an hour after eating
- Associated symptoms – Lump in the throat sensation has developed when swallowing.
- Aggravating and Alleviating activities – worse lying down especially at night; antacids help
- Physical findings – no significant finding
- Diagnostic Studies – imaging may reveal a hiatal hernia; endoscopic exam
- Anyone not responding to antacids needs to be evaluated for esophageal or stomach cancer, which have similar signs and symptoms
Differentiate Chronic Cholecystitis

• **Similar features:**
  • Recurrent indigestion and flatulence for a few hours after eating

• **Distinguishing features:**
  • Female, forty, fat and flatulent whose symptoms are related to fatty foods and not relieved with antacids; positive Murphy’s sign and possible jaundice; a bile duct stone may cause an acute episode (“Surgical Abdomen”)

Differentiate Duodenal Ulcer

• **Similar features:**
  • Burning, gnawing abdominal pain

• **Distinguishing features:**
  • An adult with epigastric pain 2-3 hours after eating, especially alcohol, spicy or fatty foods; barium radiographs and endoscopy differentiate

• **A perforated ulcer would present as a “surgical abdomen”**
Differentiate (acute) Pancreatitis

- Similar features:
  - A bout of upper abdominal pain
- Distinguishing features:
  - Sudden, severe onset of symptoms lasting hours – days with associated fever, and vomiting; alcohol and eating worsen it; fetal position may help; labs help differentiate
  - Late stage pancreatic cancer can present with similar signs and symptoms

- Causes: gallstones, biliary diseases, alcohol use, viruses (mumps, coxsackie)
Differentiate Gastric Cancer

- **Similar features:**
  - A bout of upper abdominal (indigestion) pain

- **Distinguishing features:**
  - Associated vomiting and unexpected weight loss; symptoms are unresponsive to ulcer or reflux treatments; endoscopy differentiates
Presentation

• What common abdominal conditions would present with lower abdominal pain?
DIVERTICULITIS

• Typical biographical profile- male or female over 40
• Onset, circumstances and course- last about 1-3 days
• Symptom intensity, quality location, and distribution- recurring episodes of sudden, severe LLQ pain
• Associated symptoms- diarrhea and rectal bleeding
• Aggravating and alleviating activities- settles rapidly with bed rest
• Physical findings- LLQ tenderness and guarding
• Diagnostic studies- contrast studies

• Polyps are extensions INTO the bowel; diverticulitis lesions are extensions OUTSIDE the bowel
Differentiate Appendicitis

• **Similar features:**
  • Lower abdominal pain

• **Distinguishing features:**
  • Sudden, severe or escalating LRQ pain ("Surg. Abd.") that migrated from umbilicus to McBurney’s point; positive Markle (heel jar), Rovsing, Blumberg, psoas, and obturator signs; labs help differentiate
Differentiate Intestinal Obstructions

• **Similar features:**
  - Some lower abdominal pain

• **Distinguishing features:**
  - Adults (50+) with sudden, severe or escalating waves of abdominal pain ("Surg. Abd.")
  - Distention, visible peristalsis
  - Frequent high-pitched peristaltic sounds

• Special studies may be needed
Differentiate Indirect Inguinal Hernia (Most common)

- **Similar features:**
  - Lower Abdominal pain

- **Distinguishing features:**
  - Male with pain and/or inguinal mass that are worse when coughing, sneezing or straining; digital and/or Zieman’s exams are positive
A: epigastric
B: incisional
C: umbilical
D: direct
E: indirect
F: femoral
Differentiate Femoral hernia

• **Similar features:**
  - Lower abdominal pain

• **Distinguishing features:**
  - Female with pain and/or femoral triangle mass that are worse when coughing, sneezing or straining; digital and/or Zieman’s exams are positive
Differentiate Direct Inguinal Hernia

• **Similar features:**
  - Lower abdominal pain

• **Distinguishing features:**
  - Male with vague pain and/or mass medial to the inguinal canal that are worse when coughing, sneezing, or straining; digital and/or Zieman’s exams are positive
The End!