CASE 1
Identify the layers of the bowel wall.
What section of bowel is this?

Case 1
Name the organ. What structures are depicted by the arrows?
Identify A, B and C. Explain the functions of the above named
cells and structures.
Case 1
Identify the “Crypts of Lieberkuhn”

Case 1
Distinguish the jejunum from the ileum. What are the key features of each?

Case 2
Identify the layers of bowel
Case 2

Name the organ. What cell types are “A” and “B” indicating? Identify the lamina propria.

Case 2

Identify the Crypts of Lieberkuhn and the lamina propria

Case 2

In the next slide, on the low power image, identify where Meissner and Auerbach plexus are located (A or B).

On the high power images, locate Meissner or Auerbach plexus.

What is/are the functions of each?
Case 2

Endoscopy of normal colon. Describe the findings.

Ascending colon

Transverse colon

Case 3

**CHIEF COMPLAINT:** Diarrhea

**HISTORY:** A 67-year-old woman with diabetes mellitus type 2 is hospitalized with community acquired pneumonia. On hospital day #2 she is discharged and she completes a seven day course of moxifloxacin. Two weeks later she is hospitalized with profuse, watery diarrhea.

**PHYSICAL EXAMINATION:**

Vitals: BP 124/80, HR 95/min, RR 2/min, T 101.5°F

Patient is alert and oriented. Lungs are clear to auscultation. Her abdomen is soft and non-tender. She has hyperactive bowel sounds.

**LABS** – WBC 19,000 with 87% segs and 3% bands
Case 3
List potential causes of this patient’s diarrhea.

Case 3
What diagnostic test(s) would you order?

Case 3
Describe the endoscopic findings.
Case 3
Describe gross pathologic findings.

Case 3
Describe histopathologic findings. Compare to normal.

Case 3
Describe the histologic changes. Compare to normal.
Case 3
What is your diagnosis?

Explain the etiology of this disease process. How/why did this patient develop this disease?

Case 3
What is the therapy for this disease?

Case 4

CHIEF COMPLAINT: "I have blood in my stool."
HISTORY: 33 year-old man has noticed blood in his stool recently. He has crampy left lower abdominal pain associated with frequent bowel movements and tenesmus.

PHYSICAL EXAMINATION:
VITAL SIGNS: BP 140/85, HR 83, RR 18, T 98°F
Alert and oriented healthy appearing man with left lower quadrant tenderness on palpation of the abdomen. No masses or organomegaly are appreciated and there is no evidence of external hemorrhoids.
Case 4
What is the main clinical problem?
Develop a differential diagnosis for this problem.

Case 4
Describe the findings seen on Colonoscopy.

Case 4
Describe the gross findings (3 separate specimens).
Case 4

Describe the findings.

B = anus

Case 4

Describe the findings. What do A, B, and C represent?
Case 4
Describe the histopathologic findings. What part of the colon is the process involving? What are the * and bracket highlighting? Compare to normal colon.

Case 4
What is “A” depicting? Describe the lamina propria.

Case 4
What is your diagnosis?
Case 4

What complications of this disease are depicted by the following images A and B?
Case 4

• Be prepared to contribute answers for Case 5, slide 45

Case 5

CHIEF COMPLAINT: "I'm having a lot of diarrhea and I feel nauseous and sick to my stomach" x several weeks

HISTORY: 19-year-old female college student presents with non-bloody diarrhea, nausea, vomiting and crampy abdominal pain. She has lost 15-20 lbs recently, and has a history of a "touchy stomach" with diarrhea in the past.

PHYSICAL EXAMINATION:

Vitals: BP 130/80, HR 92/min, RR 18/min, T 98°F.
Extremely thin, anxious female with right lower quadrant abdominal pain on palpation. She has no palpable masses or organomegaly.

Case 5

Develop a problem list.
Case 5

Describe the gross pathologic changes (3 separate specimens).
Case 5

Describe the histopathologic findings. What layer(s) of the bowel is the process involving?
Case 5

What is your diagnosis?

Case 5

What extraintestinal manifestations of this disease process are depicted by the following examples?

a. The patient develops poorly defined exquisitely tender erythematous nodules on the legs.

Contrast Cases 4 and 5

*Presenters for Case 4 will contribute to this discussion
• Which disease is contiguous in its involvement of the GI tract?
• Which is characterized by skip lesions?
• Which disease is limited to the mucosa?
• Which disease is transmural?
• Which disease may have fistulas between bowel or fistulas between bowel and bladder, vagina or perianal skin? Why?
• Both disease may have primary sclerosing cholangitis as an extra-intestinal manifestation. In which disease is it more common?
Case 6

CHIEF COMPLAINT: “I’ve been feeling tired lately.”

HISTORY: 60-year-old man with ischemic heart disease, has easy fatigability and “palpitations” recently. He does not smoke and drinks alcohol only occasionally.

PHYSICAL EXAMINATION: Alert and oriented male with soft protuberant abdomen which is soft and non-tender. No masses or organomegaly are detected.

LAB TESTS: Hgb 9.9 g/dl, Hct 30%, MCV 78
Iron study summary: Iron low, TIBC elevated, % saturation low, ferritin low

Case 6

Develop a problem list. What is the main clinical problem?

Develop a differential diagnosis.

Case 6

Colonoscopy is recommended. Why?
Case 6
Describe the endoscopic findings.

Case 6
Describe gross findings (2 separate surgical specimens)
Describe the histopathologic changes.

Case 6

Case 6

Case 6
Case 6

What is your diagnosis?

Explain TNM staging. Based on the low power image, what "T" would you assign to this case?