Case 1
Describe the normal gross pancreas.
Identify the parts of the pancreas

Case 1
Identify the labeled structures
Case 1 – On low and high power - Identify Acini and Islets of Langerhans

High Power
Low Power

Case 1- Describe the morphology of the duct and acini

High Power

Case 2

CHIEF COMPLAINT: “My wife says my eyes look kind of yellow.”

HISTORY: 60 year-old man, who has a past medical history significant for a 30 pack-year history of smoking, presents with a several month history of gnawing upper abdominal pain that radiates to the back. He has had a 20 lb unintentional weight loss over the same time-frame.

VITAL SIGNS: BP 140/90 HR 80 RR 18 T 98

PHYSICAL EXAMINATION: Alert and oriented, cachectic-appearing male with yellow conjunctiva. The abdomen is scaphoid with epigastric tenderness. No lymphadenopathy is noted.

LAB TESTS:
- Alkaline phosphatase 140 U/L (reference range 20-70 U/L)
- Bilirubin total 4.3 mg/dl (0.0-0.3mg/dl)
- AST 21 U/L (8-20 U/L)
- ALT 19 U/L (8-20)
Case 2

What is the clinical problem?

What is your clinical differential diagnosis?

Case 2

An abdominal ultrasound is done which shows dilated bile ducts and a mass in the pancreas. Based on the data, where do you suspect the mass is located?

Case 2

The fixed pancreas in this image is bisected along its longitudinal access. Describe the morphology. What do A and B represent?
Case 2 - From what part of the gross specimen was this section taken? Describe the low power findings.

Case 2 - Describe the findings on 20x.

Case 2 What does this 40x image depict?
Case 2

What is your diagnosis?

Case 2

Explain the pathogenesis of jaundice in this patient.

Case 2

The patient and his wife are overwhelmed with the news of his diagnosis. They have 1 son and want to know if he could be “tested” to find the disease early. How would you respond? (in other words, is there an accepted screening modality for this disease?)
Case 3

CHIEF COMPLAINT: “My stomach and back really hurt.”

HISTORY: 47 year-old man presents with a several day history of severe epigastric pain after a “bender with the guys”. The pain radiates to the back and chest. He drinks alcohol daily.

VITAL SIGNS: BP 110/60 HR 110 RR 18 T 99

PHYSICAL EXAMINATION: Thin, malnourished and anxious appearing man who is almost “doubled over” in pain. Conjunctiva are anicteric. There is epigastric tenderness to palpation. No palpable abdominal masses. Stool is brown and hemoccult negative.

Case 3

What is the clinical problem?

Develop a differential diagnosis.

Case 3

What lab tests would you order?
Case 3 – Compare the CT findings of this patient’s pancreas with the normal pancreas

Case 3
Describe the morphology. Compare to normal. Correlate with the CT scan.

Case 3 – Describe the findings on 10x and 20x. Is there normal pancreatic tissue present?
Case 3 – Describe the findings.

Case 3 – Section represents mesentery. What is the finding?

Case 3

What is your diagnosis?
Case 3

Discuss the following blood test results in the context of the pathologic findings:

Amylase 345 U/L
Lipase 427 U/L

Case 3

Correlate the findings with potential complications of this disease process:

a) Calcium:
Day 1 9.5mg/dL
Day 3 6.7mg/dL
Day 4 5.9mg/dL

Case 3

b) Creatinine: Average systolic BP
Day 1 1.5mg/dL 120/68
Day 3 2.5mg/dL 90/42
Day 5 4.8mg/dL 78/38
Case 3

c)O2 sat on RA:
Day 1 98% → Day 3 82%

Case 4

CHIEF COMPLAINT: Abdominal pain
HISTORY: 53 year-old man with alcohol abuse and a 20 pack-year history of smoking has been hospitalized several times in the past for acute pancreatitis. He now has a dull abdominal pain much of the time. He has “greasy” bowel movements not long after eating; his stools are malodorous.

PHYSICAL EXAMINATION: Alert and oriented male who appears older than his stated age. His abdomen is soft with no palpable masses or organomegaly. He has mild epigastric tenderness.

Labs: Fasting blood sugar 267mg/dL

Describe the gross findings
Case 4 – Describe the low power findings

Case 4 – Describe the findings

Case 4

What is your diagnosis?

Correlate the presented clinical findings with the pathology.
Case 4 What pathologic findings of this patient’s pancreas are the black and white arrows indicating?

Case 5

CHIEF COMPLAINT: “My stomach really hurts.”
HISTORY: A 13 year-old girl presents with fever and right lower quadrant abdominal pain. She had a preceding episode of nausea and vomiting.
VITAL SIGNS: BP 125/80 HR 90 RR 18 T 100
PHYSICAL EXAMINATION: The patient is a healthy, anxious appearing girl who has RLQ abdominal rebound tenderness to palpation

Case 5

What is your differential diagnosis?

A diagnostic procedure is performed. The patient is subsequently taken to surgery.
Case 5 – Patient specimen A, normal B. What is the organ? Describe the findings and compare to normal.

Case 5 – Normal. Describe the low power findings

Case 5 (normal) – Describe the high power findings of the mucosa
Case 5 (Patient) – Describe the low power findings

Case 5 (Patient) – Describe the findings

Case 5 (Patient) What is depicted in this section?
Case 5

What is your diagnosis?

Correlate the clinical findings with the pathology

Case 5 – Preop CT Scan. Correlate with pathologic findings

Case 5

If not diagnosed and treated in a timely fashion, what are potential complications of this disease process?