Q.1 A 65 years old male presented with small volume blood stained diarrhea. Stool analysis shows pus cell numerous RBC's but no ova or cyst. He has been treated with oral vancomycin, now again presents with same symptoms.

a) What is your diagnosis?
b) How will you further evaluate and treat the initial recurrence?
c) How will you manage subsequent recurrence?

Q.2 A 28 year old man with 10 year history of chronic diarrhoea. He is thin, lean, and pale looking. Abdominal examination and rest of the systemic examination is unremarkable. Hb 10% g/dl, TLC 4000/cm, platelet 180000/cmm, serum creatinine 1.1 mg/dl and urea 30 mg/dl. LFT's: total bilirubin 1.8 mg/dl, direct bilirubin 0.6 mg/dl, ALP 420 U/L, ALT 60 U/L, AST 66 U/L, gamma GT 34 U/L, TTG IgA negative, deamidated gliadin peptide (DGP)negative, HLADQ2 homozygotic, abdominal USG unremarkable. EGD and distal duodenal biopsy shows Marsh IIIb changes in duodenal mucosa.

a) What is your diagnosis?
b) How will you treat?
c) What complications you will expect in this patient?
Q.3 A 45 year old man has presented with 4 months history of upper abdominal discomfort anorexia and breathlessness. His past medical and family history is unremarkable. On examination he is not pale and icteric. His BP 130/80 mmHg, pulse 84/min, JVP normal, has bilateral pedal edema. Chest examination reveals bilateral pleural effusions. Abdomen is scaphoid without any visceromegaly and cardiac examination is normal. His Hb is 12 gm/dl, MCV 70 fl, WBC 7 x 10^9/L, platelets 305 x 10^9/L, bilirubin 0.7 mg/dl, ALT 30 U/L, alkaline phosphate 206 U/L, albumin 2.5 gm/dl, PT 17/13 sec. urea 11 mg/dl, creatinine 0.8 mg/dl, urine examination normal, upper GI endoscopy showed prominent mucosal folds in the corpus which do not flatten on air insufflation.

a) What is your differential diagnosis?
b) How will you confirm the diagnosis?
c) How will you manage this case?

Q.4 A 40 year old lady, a diagnosed case of ulcerative colitis (left sided colitis) since 1999 had been well on maintenance medication including 5 ASA, Azathioprine and folic acid. She has reported for followup. Her general and systemic examination is normal. Her CBC, LFT's and renal profile is normal.

a) What will be your advice regarding surveillance colonoscopy?
b) What special measures you will take for the detection of dysplastic lesions?
c) How will you classify the pit pattern on surveillance colonoscopy?
Q.5 A 40 year old male has presented with 5 months history of dull pain in right hypochondrium and pruritis. He had consulted with local physician and dermatologist but did not improve with medication. He is a non-smoker with unremarkable past medical and family history. On examination, he is afebrile, jaundiced, has shiny nails and scratch marks all over body. Abdomen is scaphoid with liver enlarged 3 cm below right costal margin. There is no splenomegaly or ascites. Remaining systemic examination is normal. His Hb is 13 gm/dl, WBC 6 x 10^9/L, platelet 170 x 10^9/L, bilirubin 5 mg/dl, direct bilirubin 4 mg/dl, ALT 50 U/L, alkaline phosphatase 700 U/L, serum albumin 3 gm/dl, PT 15/13 sec; renal profile normal, viral serology negative, ANA, ASMA, AMA, LKM antibody negative. US abdomen and MRCP is normal. Serum ceruloplasmin and ferritin levels are normal.

a) What is the most likely diagnosis?

b) How will you establish the diagnosis?

c) What other investigations should be done in this patient?

d) How will you treat this patient?

Q.6 A 30 years old lady with end stage kidney disease on twice weekly maintenance haemodialysis and candidate for renal transplant has been referred to you by nephrologist for advice regarding HCV infection diagnosed recently. On examination, she looks pale and has peripheral edema, her BP is 170/100 mmHg. Abdominal examination reveals elicitable shifting dullness. Chest and cardiac examination is normal. Her Hb is 9.7 gm/dL, MCV 84 fl, WBC 6.2 x 10^9/L, platelets 157 x 10^9/L, bilirubin 0.8 mg/dl, ALT 50 U/L, alkaline phosphatase 306 U/L, serum albumin 3.0 g/dl, HBsAg negative, and ultrasound shows moderate abdominopelvic ascites. SAAG 0.8. Interferon-gamma release assay is negative. PCR for HCV RNA is positive with genotype 1 and upper GI endoscopy shows no varices.

a) What will be your advice to the patient regarding treatment?

b) What is the likely cause of ascites in this patient?

c) What advice you will extend to your nephrology colleague regarding this patient?
Q.7 A 53 years old male with HCV related cirrhosis, presented with abdominal distension and progressive dyspnea. He has been requiring large volume paracentesis (6-8L) every 2 weeks despite dietary sodium restriction to <2gm/day and treatment with spironolactone 200 mg/day and frusemide 80 mg/day. On examination he has a tense abdomen and decreased breath sounds in right lung base. Lab shows Albumin 2.8 g/dl, Na 124 mmol/L, Creatinine 1.4 mg/dl, Bilirubin 1.6 mg/dl, INR 1.3, and MELD score 14. Pleural fluid shows total protein 1gm/dl, TLC 200 (N: 5%). EGD shows small esophageal and fundal varices. A CXR shows mild right pleural effusion. Liver Doppler Ultrasound shows cirrhotic liver, large ascites, splenomegaly and patent hepatic vasculature.

a) What single parameter will you look for before optimizing the dose of diuretics?

b) Response to maximum dose of spironolactone and frusemide remains suboptimal. What further treatment options you can suggest?

c) Name any newly developed technique for the management of ascites and what is its efficacy.

Q.8 A 50 years old man has presented with 12 weeks history of abdominal pain, foul smelling, bulky stools and weight loss. General and systemic examination is unremarkable. Hb is 12 gm/dl, WBC 6 x 10⁹/L, platelets 230 x 10⁹/L, blood glucose 250 mg/dl, total bilirubin 1.1 mg/dl, ALT 30 U/L, alkaline phosphatase 300 U/L, albumin 3.3 gm/dl, urea 22 mg/dl, creatinine 0.9 mg/dl, Na⁺ 136 mmol/L, K⁺ 4.1 mmol/L, TSH 1.6 mIU/L. Contrast enhanced CT scan abdomen shows enhancing lesion in pancreatic head measuring 3 x 2 cm, multiple enhancing lesions in right hepatic lobe and gall stones. EUS guided biopsy of pancreatic lesion revealed cells arranged in clusters and in acinar pattern without significant mitotic activity.

a) What is your diagnosis?

b) How will you confirm the diagnosis?

c) How will you manage this case?

d) How will you carry out post treatment surveillance?
Q.9 A 22 year old college student has undergone extensive small gut resection secondary to gunshot wound one week ago. Surgical colleague has requested for gastroenterology consultation for immediate and long term management.

a) What will be your immediate management plan?
b) What will be your advice regarding enteral feeding explaining its advantages to the patient?
c) If malabsorption continues, what therapeutic options can be offered to the patient?

Q.10 An 18 years girl presented with 3 years history of recurrent episodes of diffuse abdominal pain in the peri umbilical area. She had been admitted 8 days back with upper GI bleeding requiring 4 units of blood. On examination the BP is 110/60 mmHg, pulse 88/min, temp 36.5°C. There are brown violet coloured pigmented spots around the upper and lower lips, around the eyelids and on the ventral sides of hands and feet. She looks pale. Abdominal exam was normal except for mild discomfort in epigastric and paraumbilical region. Remaining examination was normal. Upper GI endoscopy revealed multiple polyps in the stomach. Colonoscopy showed polyps in the rectum and terminal ileum. Enteroclysis showed temporary jejunal invagination.

a) What is the diagnosis?
b) What is the underlying etiopathogenesis of this disease?
c) What histopathologic findings you will expect on biopsy?
d) How will you counsel this patient for surveillance?
e) What will be your advice to the patient if she wishes to conceive after marriage?
Q.11 A 51 year old teacher presented with 3 months history of breathlessness and progressive pallor. He has unremarkable past medical history. He is non-smoker. On examination he looks pale, BP 130 / 65 mmHg, pulse 96/min and no peripheral edema. Cardiac auscultation revealed faint systolic murmur. Remaining systemic examination was normal. His Hb was 7.8 gm/dl, MCV 65 FL, WBC 5.4 x 10^9/L, platelets 415 x 10^9/L, serum ferritin 10 µg/ml, renal profile was normal. Stool for occult blood positive. Barium meal revealed a large hiatus hernia. Stomach and duodenum is normal.

a) Name four differential diagnoses.
b) What further investigations you will do?
c) How will you manage this case?

Q.12 A 52 year old lady presented with history of intermittent lacrimation, generalized itching, feeling of warmth in her face and neck along with palpitation especially after exercise. This is associated with episodes of watery diarrhea and vague abdominal pain. For the last one week patient also noticed black tarry stools which settled spontaneously.
Clinical examination is unremarkable except for pallor. EGD and colonoscopy done at local facility was unremarkable. CT abdomen shows soft tissue mass in the right lower quadrant with central calcification and spiculation of the adjacent mesenteric fat.

a) What is your diagnosis?
b) How will you proceed with the diagnostic workup?
c) How will you treat this case?
d) What is the prognosis of this disorder?
Q.13 A 32 years old lady has presented with 3 months history of recurrent upper abdominal pain radiating to back associated with vomiting. Her past medical, family and drug history is unremarkable. On examination, she is not pale, icteric and febrile. Her pulse is 96/m and BP is 120/70 mmHg, she has diffuse tenderness in upper abdomen. Remaining systemic examination is normal. Her Hb is 10.5 gm/dL, WBC 13x10^9/L, platelets 189x10^9/L, Serum bilirubin 1.2 mg/dL, ALT 66 U/L, Alkaline phosphatase 220 U/L, albumin 3.8 g/dL, S. amylase 850 U/L, urea 13 mg/dL, creatinine 0.7 mg/dL. Ultrasound abdomen was normal. MRCP revealed normal biliary tree while main pancreatic duct diameter of 6 mm.

a) What is your diagnosis?
b) How will you investigate further?
c) How will you treat?

Q.14 A 75 years old retired banker presented to you with history of abdominal pain especially after meals, which has increased progressively over last 2 months. Physical examination is normal. Investigations: EGD with antral and duodenal biopsy reveals normal mucosal architecture. Colonoscopy with terminal ileal intubation was normal. Capsule endoscopy was normal.

a) What is your diagnosis?
b) What further investigations are needed to establish the diagnosis?
c) How will you mange this case?
Q.15 A 55 years old male has presented with 8 months history of arthralgia, diarrhoea, bloating and weight loss. For the past 4 weeks he feels unsteady while walking and has persistent dull headache. On clinical examination he is pale with bilateral pitting edema. There is no jaundice and lymphadenopathy. Abdomen is scaphoid without visceromegal. Chest examination reveals reduced breath sounds bilaterally. Cardiac examination is normal. Neurologic examination reveals past-pointing and dysdiadochokinesia. His Hb is 9 gm/dl, MCV 106 fl, WBC 11 x 10^6/L, platelets 17 x 10^9/L, urea 22 mg/dl, creatinine 1.1 mg/dl, serum bilirubin 0.6 mg/dl, ALT 45 U/L, alkaline phosphatase 260 U/L, albumin 2.9 g/dl. X-ray chest revealed blunting of both costophrenic angles. HIV serology is negative.

a) Name 4 differential diagnoses.
b) What investigations you will do to establish the diagnosis?
c) How will you treat this case?

Q.16 A 19 year old boy presented with one day history of massive haematemesis. He is a known case of extra hepatic portal vein obstruction (EHPVO) and portal biliopathy for which 2 biliary stents were placed endoscopically 8 weeks ago. On examination, he was anxious, BP 90/60 mmHg, pulse 106/min, had sweaty and cold palms. He looked pale with no jaundice. Abdominal examination revealed splenomegaly. Remaining examinations were normal. After initial resuscitation, upper GI endoscopy was performed which revealed grade I esophageal varices, fresh blood in stomach, fresh blood oozing from ampullary orifice.

a) What is your diagnosis?
b) How will you manage this case?
c) What long term management you will suggest to the patient?
Q.17 A 53 years old male is brought to the emergency department by his family with agitation, confusion and unsteady gait. On further inquiry the son disclosed that his father had been drinking ethanol for the last 8 years. On examination the patient was febrile, BP was 140/80 mmHg, pulse rate 114/min. He was obviously jaundiced, awake but not orientated to time, place and person. Examination of the limbs showed wasting of distal musculature. Abdominal examination revealed tenderness in right hypochondrium, an enlarged spleen and shifting dullness. The WBC count was 13,700/mm³, PT 18 sec (control: 10 sec). INR was 1.7, LFT: total bilirubin 2.67 mg/dl, direct bilirubin 1.3 mg/dl, SGPT 89 U/L, SGOT 116 U/L, ALP 223 U/L, GGT 270 U/L, serum creatinine 1.0 mg/dl. Viral serology was negative.

a) What is your composite diagnosis?
b) What is the severity of disease in this patient?
c) How will you counsel his son regarding prognosis?

Q.18 a) What is hepatic venous pressure gradient (HVPG)?
    b) How it is measured?
    c) What are its clinical applications?
Q.19 A 48 year old man who underwent liver transplantation 5 year ago due to hepatitis B related cirrhosis is taking tab Tacrolimus 1 mg twice daily and tab Entacavir 0.5 mg once daily until very recently when he presented with increasing jaundice, anorexia and vomiting of one week duration. On examination he is icteric, conscious, oriented, transverse upper abdominal scar, liver is tender on palpation. There is no shifting dullness. Hb 12.4 g/dl, WBC 12 x 10^9/L, serum creatinine 1 mg/dl, total bilirubin 16 mg/dl, direct bilirubin 9 mg/dl, ALT 2400 U/L, AST 1800 U/L, ALP 600 U/L, gamma GT 450 U/L, tacrolimus level 10 ng/dl. Ultrasound abdomen shows normal liver with no intrahepatic ductal dilatation and ascites. HBV DNA by PCR negative, anti HAV IgM negative, anti HEV IgM positive, HCV RNA by PCR negative.

a) What is your diagnosis?
b) What further investigations you will do to confirm the diagnosis?
c) What long term sequale you will anticipate?
d) How will you manage this case?

Q.20 A 40 year old woman has presented with one year history of gradual onset of nausea, bloating, post prandial upper abdominal discomfort and vomiting. Vomitus contained undigested food material which she took several hours before. She does not smoke. There is no history of diabetes mellitus, thyroid disease, and surgery. She denies using medication on regular basis. Psychosocial review was normal. Her general and systemic examinations were normal. Her BMI is 19. Her blood picture, blood glucose, renal and liver profile, thyroid functions are normal.

a) What is the most likely diagnosis?
b) Name 5 relevant investigations.
c) What therapeutic options can be offered to the patient?
d) Name 4 possible complications.

The End