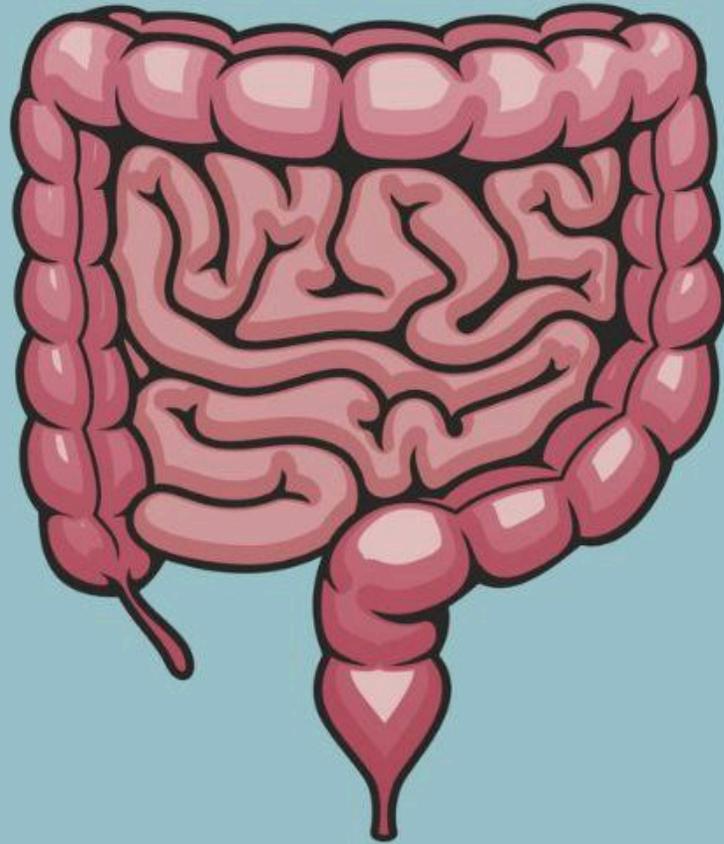


# Edited past paper



By Farah Yousef

# Q1 TEST BANK

Collected by: Ameen Alsaras  
, Doctor (20 and 18)

1) A 63-year-old lady with **new onset ascites** presented to the clinic with abdominal pain and discomfort. She has a history of DM, HTN. Vitals were stable. Her abdomen is distended with large ascites. Labs include AST 22 U/L, ALT 35 U/L, total bilirubin of 0.8 mg/dL, albumin of 3.7 g/dL, sodium 142 mEq/L, creatinine of 0.5 mg/dL, and a platelet count of 220,000/ $\mu$ L. Urine analysis protein +1. She had a diagnostic paracentesis, which revealed ascites polymorphonuclear count of 100/mm<sup>3</sup>, albumin 3.0 g/dL, total protein 3.9 g/dL. One of the following is the **most likely** possible cause of her presentation?

- a. Budd chiari syndrome
- b. Nephrotic syndrome
- c. Heart failure
- d. Malignancy
- e. Liver Cirrhosis

	SAAG (g/dL)	
	$\geq 1.1$	$< 1.1$
Total protein (g/dL)		
$< 2.5$	Cirrhosis Acute liver failure	Nephrotic syndrome
$\geq 2.5$	CHF Constrictive pericarditis Budd-Chiari syndrome Veno-occlusive disease	Peritoneal carcinomatosis TB peritonitis Pancreatic ascites Chylous ascites

**ANSWER: D**

Calculate the SAAG = albumin in serum - albumin in ascitic fluid

$3.7 - 3 = .7$  ( SAAG  $< 1.1$  indicate malignancy ) and total protein is  $> 2.5$  so not nephrotic syndrome

2) One of the following statements is **FALSE** regarding idiopathic achalasia:

- a. Manometry shows impaired lower esophageal sphincter relaxation
- b. It is uncommon in individuals younger than 18 years of age
- c. It usually presents with dysphagia to solids with significant weight loss
- d. There is aperistalsis of distal esophagus
- e. Pneumatic dilation of the lower esophageal sphincter is one of the treatment modalities

## ANSWER:C

Dysphagia to solid and liquid at the same time.

Achalasia is a condition characterized by impaired relaxation of the lower esophageal sphincter (LES) due to degeneration of inhibitory neurons within the esophageal wall. Symptoms include dysphagia to both solids and liquids (most common), regurgitation, retrosternal pain, and weight loss. High-resolution esophageal manometry is the preferred test to confirm the diagnosis. Upper endoscopy is indicated for all patients to rule out pseudoachalasia, which manifests similarly to achalasia but is caused by another underlying condition (e.g., malignancy). Barium esophagram is often obtained to support the diagnosis and/or assess treatment outcomes in patients with persistent or recurrent symptoms. Definitive treatment options are pneumatic dilation, laparoscopic Heller myotomy, and peroral endoscopic myotomy (POEM); the choice depends on the subtype of achalasia. If definitive treatment is not possible, an injection of botulinum toxin may be used. Medical therapy (e.g., nifedipine) may be considered as a last resort option.

## Achalasia

- ❑ There is failure of relaxation of the lower esophageal sphincter.
- ❑ There is non peristaltic contractions in the body of the esophagus.
- ❑ It results from progressive degeneration of inhibitory ganglion cells (neurons) in the myenteric plexus in the esophageal wall.

3) 55-year-old male presented with rectal bleeding of few days duration, he claims that he has a long history of hemorrhoids and he is asking you to prescribe him anti-hemorrhoidal medications, what would be your advice to this patient?

- a. Stool for hemocult testing
- b. Doing colonoscopy to check for pathology
- c. Using anti-hemorrhoidals for three weeks
- d. Upper GI endoscopy to check for upper GI pathology
- e. Surgical consultation

**ANSWER :B**

Any patient above 50 should do colonoscopy to exclude colorectal cancer. Or any other disease.

4) All the followings are true about *Clostridium difficile* disease **except**:

- a. It is diagnosed by detection of serum antibodies to toxin A and B.
- b. It is caused by Gram-positive bacilli.
- c. Recurrence rate can reach 20%.
- d. It is the most common cause of hospital-acquired diarrhea.
- e. It is treated by metronidazole

**ANSWER:A** (by antigen not antibody)

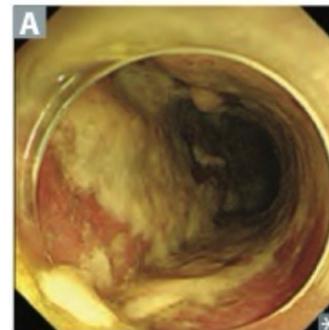
*Difficile* causes **diarrhea**.

Diagnosed by **PCR** or antigen detection of one or both toxins in stool.

Treatment: oral **vancomycin** or **fidaxomicin**.

For recurrent cases, consider **repeating prior regimen** or **fecal microbiota transplant**.

*Clostridioides difficile*



Produces toxins **A** and **B**, which damage enterocytes. Both toxins lead to **watery diarrhea** → **pseudomembranous colitis** **A**. Often **2°** to antibiotic use, especially **clindamycin**, **ampicillin**, **cephalosporins**, **fluoroquinolones**; associated with **PPIs**.

Fulminant infection: **toxic megacolon**, **ileus**, **shock**.

5) A 34-year-old patient with upper gastrointestinal symptoms tests positive for *Helicobacter pylori* following a stool antigen test. Which of the following conditions is most strongly associated with *Helicobacter pylori* infection?

- a. GERD
- b. Gastric adenocarcinoma
- c. Duodenal ulcer
- d. Atrophic gastritis
- e. Esophageal cancer

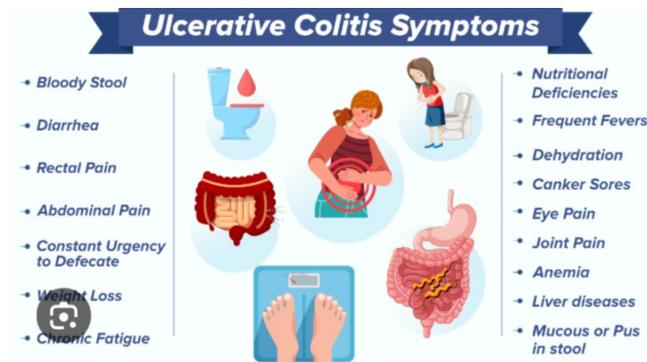
**ANSWER: C** ( up to 95% of duodenal ulcer caused by *H pylori* )

7) A 26-year-old woman is evaluated for a six month history of **loose bloody bowel movements**. The diarrhoea is associated with lower abdominal pain which slightly **improves** with defecation. She denies fever, chills, night sweats, arthralgia, eye pain, and rash. The patient teaches in a school and has not travelled or used antibiotics prior to her presentation. She takes no medication. On physical examination vital signs are normal, the abdomen is scaphoid and soft with supra-pubic and lower left quadrant tenderness. Colonoscopy shows erythema and superficial ulceration in the rectum, sigmoid, and descending colon with **no** involvement of the proximal colon. Mucosal biopsies of the inflamed colon reveal **distortion of the crypts** architecture, cryptitis, and basal lymphoplasmacytosis. Which one of the **following is the most likely diagnosis?**

- a. Crohn's disease
- b. vasculitis of the colon
- c. microscopic colitis
- d. ulcerative colitis
- e. giardiasis

**ANSWER: D**

Ulcerative colitis is an inflammatory bowel disease (IBD) characterized by chronic mucosal inflammation of the rectum, colon, and cecum. Common symptoms include bloody diarrhea, abdominal pain, and fecal urgency. Laboratory findings typically show elevated inflammatory markers (e.g., ESR, CRP) and elevated fecal calprotectin. Although not required for diagnosis, the presence of perinuclear antineutrophil cytoplasmic autoantibodies (pANCA) is suggestive of ulcerative colitis. Definitive diagnosis requires endoscopy, which may show changes to superficial vascular patterns, friable mucosa, and erosions and/or ulcerations. 5-Aminosalicylic acids (e.g., mesalamine) are the mainstay of treatment for mild-to-moderate disease. Patients who experience severe episodes often require corticosteroids or other immunosuppressants to achieve remission. In distal colitis, medications may be administered rectally (e.g., via enema), whereas more proximal inflammation requires oral treatment. Proctocolectomy is curative and indicated in patients with complicated ulcerative colitis or dysplasia. Patients with ulcerative colitis are at increased risk of developing colorectal cancer and should undergo regular endoscopic surveillance.



8) One of the following is **not** associated with precipitation-of hepatic encephalopathy:

- a. hypokalemia
- b. hyperuricemia
- c. Constipation
- d. GI bleeding
- e. Spontaneous bacterial peritonitis

ANSWER: B

**Hepatic encephalopathy**

Cirrhosis → portosystemic shunts → ↓ NH<sub>3</sub> metabolism → neuropsychiatric dysfunction (reversible)  
ranging from disorientation/asterixis to difficult arousal or coma.

Triggers:

- ① ▪ ↑ NH<sub>3</sub> production and absorption (due to GI bleed, constipation, infection), Dietary protein
- ② ▪ ↓ NH<sub>3</sub> removal (due to renal failure, diuretics, bypassed hepatic blood flow post-TIPS).

Treatment: lactulose (↑ NH<sub>3</sub><sup>+</sup> generation) and rifaximin (↓ NH<sub>3</sub>-producing gut bacteria).

9) A 44-year-old man with **cirrhosis** due to chronic HCV infection presents to the clinic with **new progressive abdominal distension and weight gain**. On physical examination the abdomen is symmetrically distended, with positive shifting dullness and fluid thrill. There is no tenderness on superficial or deep palpation. You **suspect** that he has **developed ascites**, which of the following statements is **true regarding ascites**?

- a. Fluid restriction is a standard part of ascites management
- b. Diagnostic paracentesis is not indicated for this patient
- c. Increased renin-angiotensin secretion is part of the pathophysiology
- d. Cirrhotic ascites forms as a result of increased fenestrations in hepatic sinusoid
- e. Ascites occurs at a rate of 50% per year in cirrhotics

**ANSWER: C**

patients with cirrhosis and ascites is a **compensatory** mechanism to maintain arterial pressure within normal or near normal limits.

The renin-angiotensin system plays an **important physiological role** and has prognostic significance in cirrhotics with ascites. The degree of stimulation of this system is usually estimated by measuring plasma renin activity after incubation periods of 2–3 h.

**ASCITES**

### Initial Therapy

**Sodium restriction** Less than 2 grams ( 88 meq) daily

**Diuretics**

- Spironolactone +/- furosemide
- Stepwise increase as needed to maximal doses

Large volume paracentesis (for tense ascites)

10) One of the following parameters is **not** part of the child Pugh classification to assess the severity of cirrhosis?

- a. gastric varices
- b. hepatic encephalopathy
- c. ascites
- d. serum albumin
- e. prothrombin time

**ANSWER:A**

	1	2	3
Bilirubin ( mg/dl)	<2.0	2-3	>3.0
INR	<1.7	1.7-2.3	>2.3
Albumin (mg/dl)	> 3.5	2.8-3.5	<2.8
Encephalopathy	None	I-II	III-IV
Ascites	None	Slight Moderate	Tense

11) Which of the following **normally** inhibits gastric acid secretion?

- a. Peptide YY
- b. histamine
- c. Ach
- d. amino acids
- e. gastrin

**ANSWER:A**

Peptide YY (PYY) released postprandially from the ileum and colon displays a **potent inhibition of cephalic and gastric phases of gastric acid secretion through both central and peripheral mechanisms.**

Other will increase acid secretion.

12) Which of the following is associated with hypergastrinemia and elevated pH?

- a. MEN I
- b. Postgastrectomy status
- c. H. pylori pangastritis
- d. Hypothyroidism

**ANSWER:C** ( H pylori secrete urease - increase PH - increase Gastrin secretion )

13) A 67-year-old man presents with fatigue and nail spooning among other signs of **Iron deficiency anemia**. What to do next?

- a. Colonoscopy
- b. Upper endoscopy
- c. Reassurance
- d. Blood test for antibodies

**ANSWER:A** (any patient above 50 and have IDA should done colonoscopy to exclude colon cancer)

14) A case of mild elevation of ALT, AST and highly elevated ALP and GGT, which of the following is **not** included in the differential diagnoses?

- a. Autoimmune hepatitis
- b. Fatty liver disease
- c. Hemochromatosis
- d. Wilson's

**ANSWER :D** (Wilson have normal ALP)

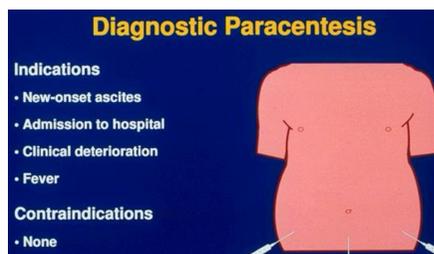
*e.g: Hemochromatosis*

Alkaline phosphatase	↑ in cholestasis (eg, biliary obstruction), <u>infiltrative disorders</u> , bone disease
γ-glutamyl transpeptidase	↑ in various liver and biliary diseases (just as ALP can), but not in bone disease (located in canalicular membrane of hepatocytes like ALP); associated with alcohol use

15) Which of the following is **not** an indication of paracentesis?

- a. Tense ascites
- b. New-onset ascites
- c. Anemia
- d. Worsening kidney function
- e. Fever

**ANSWER: C**



16) One of the following is the **least** likely feature of Hemochromatosis:

- a. Acute fulminant hepatitis
- b. Pseudogout
- c. Diabetes
- d. Bronze skin
- e. Hepatocellular carcinoma

## ANSWER:A

Autosomal recessive. Mutation in *HFE* gene, located on chromosome 6. Leads to abnormal (low) hepcidin production, ↑ intestinal iron absorption. Iron overload can also be 2° to chronic transfusion therapy (eg, β-thalassemia major). Iron accumulates, especially in liver, pancreas, skin, heart, pituitary, joints. Hemosiderin (iron) can be identified on liver MRI or biopsy with Prussian blue stain **A**.

Presents after age 40 when total body iron > 20 g; iron loss through menstruation slows progression in females. **Classic triad of cirrhosis, diabetes mellitus, skin pigmentation** (“bronze diabetes”). Also causes restrictive cardiomyopathy (classic) or dilated cardiomyopathy (reversible), hypogonadism, arthropathy (**calcium pyrophosphate deposition**; especially metacarpophalangeal joints). HCC is common cause of death.

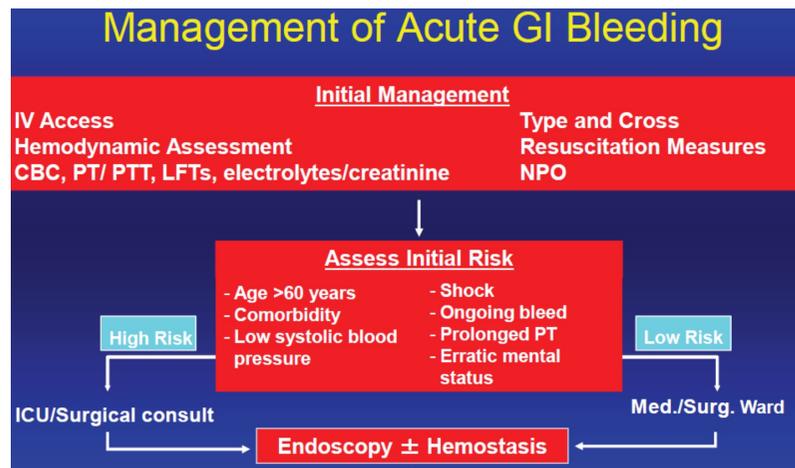
Treatment: repeated phlebotomy, iron (**Fe**) chelation with deferasirox, deferoxamine, deferiprone.

Mineral imbalances. The risk of pseudogout is higher for people who have **excessive calcium** or iron in their blood or too little magnesium. Other medical conditions.

17) A 34-year-old man presents to the emergency department (ED) with **intermittent melena of 3 days duration**. He is mildly fatigued but hemodynamically **stable** and denies any hematemesis or coffee ground emesis. His serum hemoglobin level is 8.2 g/dL. Intravenous (IV) fluids are started. Physical examination is essentially unremarkable. What is the next **best step** in this patient's evaluation?

- a. Check serum *Helicobacter pylori* antibody levels
- b. Perform a colonoscopy
- c. Perform an esophagogastroduodenoscopy (EGD)
- d. Start a histamine<sub>2</sub> receptor antagonist (H<sub>2</sub> blocker)
- e. Transfuse 2 U of packed red blood cells

**ANSWER:C**



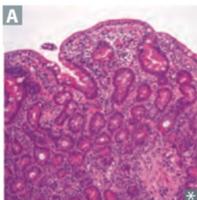
18) Regarding Celiac disease, all of the following are **correct except**:

- a. The patient may be obese
- b. The patient may be asymptomatic
- c. Small bowel biopsy may be normal in a patient on gluten-free diet
- d. Ulcerative jejunitis is a well-known complication
- e. Serum IgG anti gliadin is a specific test for this condition

**ANSWER: E**

Ordering **serologic tests—blood tests that check for antibodies**—is typically the first step in diagnosing celiac disease. The serologic tests that check for IgA antibodies are more sensitive for celiac disease than the tests for IgG antibodies. However, in people who have IgA deficiency, IgG tests may be useful.

#### Celiac disease



Also called gluten-sensitive enteropathy, celiac sprue. Autoimmune-mediated intolerance of gliadin (gluten protein found in wheat, barley, rye). Associated with HLA-DQ2, HLA-DQ8, northern European descent. Primarily affects distal duodenum and/or proximal jejunum → malabsorption and steatorrhea. Treatment: gluten-free diet.

Associated with dermatitis herpetiformis, ↓ bone density, moderately ↑ risk of malignancy (eg, T-cell lymphoma). D-xylose test: abnormal. Serology: ⊕ IgA anti-tissue transglutaminase (IgA tTG), anti-endomysial, and anti-deamidated gliadin peptide antibodies. Histology: villous atrophy, crypt hyperplasia **A**, intraepithelial lymphocytosis.

19) Regarding detection of H-Pylori infection, the **least** useful test is

- a. Tissue culture of gastric biopsy
- b. Urea breath test
- c. Histology of gastric biopsy
- d. Rapid urease test of gastric biopsy
- e. Stool antigen test

**ANSWER:A**

Four tests can detect signs of the bacteria: **breath (urea) tests, stool tests, blood tests and upper endoscopy tests**. A positive test result means you'll need antibiotics to kill the bacteria and clear the infection.

20) All of the followings are features of Osmotic diarrhea **Except:**

- a. Osmotic gap  $> 125$
- b. Stops at night
- c. Malabsorption and laxative abuse are recognized causes
- d. Anemia is not common
- e. Dehydration is the rule of treatment

**ANSWER: E**

Clinical Feature	Secretory	Osmotic
Effect of fasting	Moderate reduction	Marked reduction
Stool volume	200-2000 mL/day	100-250 mL/day
Stool pH	Normal ( $>6$ )	Often low ( $<5$ )
Reducing substances	Negative	Positive
Stool osmotic gap	Normal ( $<50$ mOsm/kg)	Increased ( $>100$ mOsm/kg)
Sodium	$>70$ mEq/L	$<70$ mEq/L

+ Decrease with fasting

21) Abnormalities in Laboratory evaluation of a patient with primary sclerosing cholangitis includes all of the followings **except?**

- a. Antimitochondrial antibodies
- b. Gamma glutamyl transferase elevation
- c. Increased level of circulating immune complexes
- d. Alkaline phosphatase elevation
- e. Perinuclear antineutrophilic cytoplasmic antibodies positivity

**ANSWER:A**

PSC

PBC

Epidemiology	♀ < ♂ (1:2)	♀ > ♂ (9:1)
Antibodies	p-ANCA	AMA-M2
Pathophysiology	Progressive inflammation and fibrosis of intrahepatic and extrahepatic bile ducts	Autoimmune destruction of small intrahepatic bile ducts
Most accurate diagnostic test	MRCP: multifocal bile duct strictures and dilatations (beading)	Liver biopsy: lymphocytic infiltration of portal areas and periductal granulomas

22) A 13-year-old patient presented to your clinic with **3 months** history of abdominal swelling, generalized weakness, and nose bleeding. His older sister died 2 years ago of liver disease. Physical examination revealed; Jaundice, spider angioma, ascites, pedal edema, and temporal wasting. Initial investigation revealed **pancytopenia**, PT 34 seconds, INR 4.2, AST 177 IU/L, ALT 191 IU/L, and total bilirubin is 8 mg/dl. HBsAg and HCV Ab, ANA, ASMA were all **negative**. **Ceruloplasmin level was 0.15** (normal:0.155-0.590). The best diagnostic test at this time is:

- a. Ultrasound for the liver
- b. Liver biopsy
- c. 24 hrs urine collection for copper
- d. Serum protein electrophoresis
- e. Serum anti LKM antibodies

**ANSWER:C**( the ceruloplasmin is low ,so should exclude Wilson by do urine collection for copper if high that mean the test positive)

23) Regarding *Clostridium difficile* (CD) associated disease, all of the following are true Except:

- a. Most antibiotic –associated diarrheas are not due to (CD)
- b. Most pseudomembranous colitis is due to (CD) infection
- c. *C. difficile* can be detected in healthy adults
- d. *C. difficile* associated disease is immune complex mediated
- e. Oral metronidazole is good treatment option in this condition

## ANSWER:D

*Clostridioides difficile* (*C. difficile*; formerly known as *Clostridium difficile*) is a gram-positive bacillus that can cause antibiotic-associated diarrhea. Rates of *C. difficile* infection (CDI) are particularly high among hospitalized patients and residents in long-term care facilities because *C. difficile* spores are easily transmitted (fecal-oral route) and difficult to eradicate. The bacterium is resistant to multiple antibiotics, and colonization with *C. difficile* most commonly occurs following antibiotic treatment for other diseases. The resulting damage to the intestinal flora promotes *C. difficile* infection, which typically manifests with diarrhea accompanied by fever and abdominal pain. Severe CDI or fulminant CDI may manifest with paralytic ileus or toxic megacolon. In most cases, however, colonization results in asymptomatic carriage. Diagnosis of symptomatic patients is based on stool tests for CDI, which detect toxins or toxigenic strains of *C. difficile* or the identification of pseudomembranous colitis on imaging or endoscopy. Vancomycin and fidaxomicin are the preferred antibiotic agents for treating CDI. Once the diagnosis is confirmed, measures to prevent transmission (e.g., patient cohorting or isolation, strict adherence to hygiene measures) should be followed, especially in hospitals and other health care settings.

24) All of the following can occur in diabetics **except**

- a. Non-alcoholic steatohepatitis
- b. Decreased incidence of gall bladder stones
- c. Alternating symptoms of constipation and diarrhea
- d. Maldigestion and delayed stomach emptying
- e. Intestinal bacterial overgrowth

**ANSWER :B**

25) Which one of the followings is **NOT** correct regarding viral hepatitis A infection?

- a. It does not lead to chronic liver disease.
- b. Spread of infection is by feco-oral route.
- c. The virus is excreted in faeces at the time of onset of symptoms.
- d. The spleen may be enlarged.
- e. Infection can be prevented by vaccination.

**Answer:C**

Hepatitis A - Clinical Features	
Incubation period:	Average 21 days Range 14-50 days
Jaundice by age group:	<6 yrs, <10% 6-14 yrs, 40%-50% >14 yrs, 70%-80%
Complications:	Fulminant hepatitis Cholestatic hepatitis Relapsing hepatitis
Chronic sequelae:	None

26)The **most** common cause of lower GI bleeding in the **elderly** is:

- a. Colonic cancer
- b. Infective colitis
- c. Rectal varices
- d. Diverticulosis
- e. Ischemia

**ANSWER:D**

27) Regarding Spontaneous bacterial peritonitis. Which one of the followings is **FALSE**?

- a. E coli is the most frequent organism.
- b. Patients may not have fever.
- c. Recurrence rate is rare.
- d. Elevated neutrophils > 250 in the Ascitic fluid is sufficient for the diagnosis.
- e. Albumin infusion may prevent the development of renal failure during the course of the disease.

## ANSWER:C

Also called 1° bacterial peritonitis. Common and potentially fatal bacterial infection in patients with cirrhosis and ascites. Often asymptomatic, but can cause fevers, chills, abdominal pain, ileus, or worsening encephalopathy. Commonly caused by gram  $\ominus$  organisms (eg, *E coli*, *Klebsiella*) or less commonly gram  $\oplus$  *Streptococcus*.

Diagnosis: paracentesis with ascitic fluid absolute neutrophil count (ANC) > 250 cells/mm<sup>3</sup>.

Empiric first-line treatment is 3rd generation cephalosporin (eg, ceftriaxone).

28) In a patient with untreated Wilson's disease, which one of the followings is **FALSE**?

- a. Low urinary copper.
- b. Serum copper and ceruloplasmin are reduced or normal.
- c. Increased amount of copper in the liver tissue.
- d. Haemolytic Anaemia.
- e. Kaiser-Fleischer ring on eye examination.

**ANSWER:A**

29) Which of the following features best favors Crohn's disease over Ulcerative colitis?

- a. Oral ulcers
- b. Crypt abscess
- c. Non-caseating granuloma
- d. Continuous colonic involvement on endoscopy
- e. Fever

**ANSWER:C**

	Crohn disease	Ulcerative colitis
LOCATION	Any portion of the GI tract, usually the terminal ileum and colon. Skip lesions, rectal sparing.	Colitis = colon inflammation. Continuous colonic lesions, always with rectal involvement.
GROSS MORPHOLOGY	Transmural inflammation → fistulas. Cobblestone mucosa, creeping fat, bowel wall thickening ("string sign" on small bowel follow-through <b>A</b> ), linear ulcers, fissures.	Mucosal and submucosal inflammation only. Friable mucosa with superficial and/or deep ulcerations (compare normal <b>B</b> with diseased <b>C</b> ). Loss of haustra → "lead pipe" appearance on imaging.
MICROSCOPIC MORPHOLOGY	Noncaseating granulomas, lymphoid aggregates.	Crypt abscesses/ulcers, bleeding, <b>no</b> granulomas.

30) A 60 year old man presents to the hospital with fever, watery diarrhea and crampy abdominal pain for the past one week. He has just completed the **treatment for osteomyelitis** in the right ankle. Proctosigmoidoscopy reveals erythematous ulcerations and yellowish white plaques. **The most likely diagnosis is:**

- a. Crohn's disease
- b. pseudomembranous colitis
- c. Viral gastroenteritis
- d. Clostridium perfringens enterocolitis
- e. Irritable bowel syndrome

## ANSWER:B

Osteomyelitis treated with antibiotics, so diarrhea induced by antibiotics used.

*Clostridioides difficile* (*C. difficile*; formerly known as *Clostridium difficile*) is a gram-positive bacillus that can cause antibiotic-associated diarrhea. Rates of *C. difficile* infection (CDI) are particularly high among hospitalized patients and residents in long-term care facilities because *C. difficile* spores are easily transmitted (fecal-oral route) and difficult to eradicate. The bacterium is resistant to multiple antibiotics, and colonization with *C. difficile* most commonly occurs following antibiotic treatment for other diseases. The resulting damage to the intestinal flora promotes *C. difficile* infection, which typically manifests with diarrhea accompanied by fever and abdominal pain. Severe CDI or fulminant CDI may manifest with paralytic ileus or toxic megacolon. In most cases, however, colonization results in asymptomatic carriage. Diagnosis of symptomatic patients is based on stool tests for CDI, which detect toxins or toxigenic strains of *C. difficile* or the identification of pseudomembranous colitis on imaging or endoscopy. Vancomycin and fidaxomicin are the preferred antibiotic agents for treating CDI. Once the diagnosis is confirmed, measures to prevent transmission (e.g., patient cohorting or isolation, strict adherence to hygiene measures) should be followed, especially in hospitals and other health care settings.

31) The most useful test in a patient with **recurrent duodenal ulcers** with Diarrhea:

- a. Colonoscopy.
- b. Gastroscopy.
- c. ERCP.
- d. Serum gastrin and CT of the abdomen.
- e. Gastric pH manometry

### ANSWER:D

When have recurrent duodenal ulcer think about secondary cause other (H pylori and NSAID use).the ANSWER IS **Zollinger Ellison syndrome** .

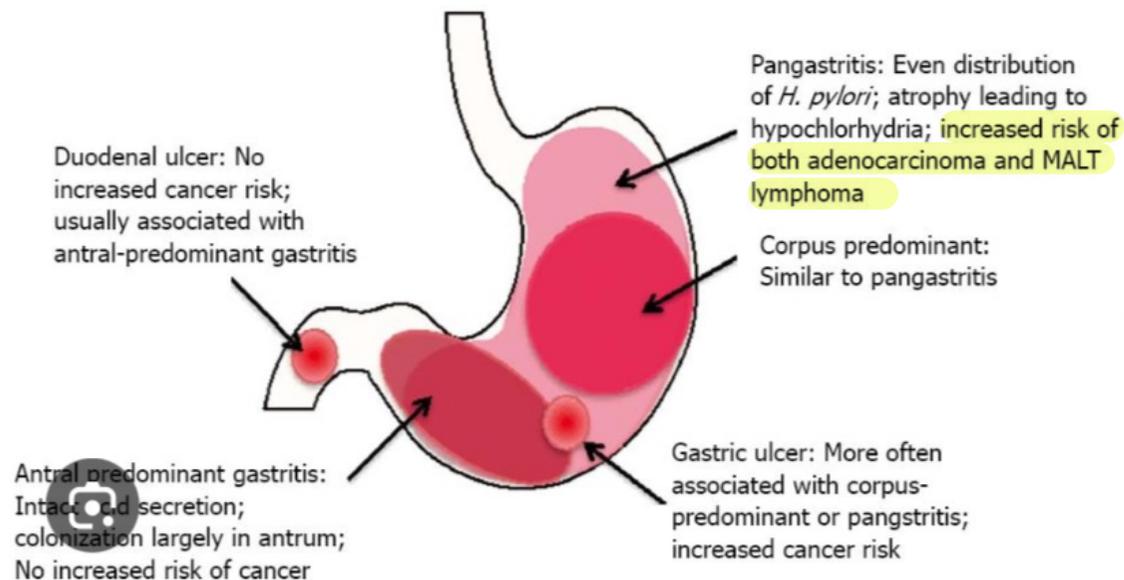
#### **Zollinger-Elison syndrome**

Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Acid hypersecretion causes recurrent ulcers in duodenum and jejunum. Presents with abdominal pain (peptic ulcer disease, distal ulcers), diarrhea (malabsorption). Positive secretin stimulation test: ↑ gastrin levels after administration of secretin, which normally inhibits gastrin release. May be associated with MEN1.

32) Which one of the following disorders is likely associated with *Helicobacter Pylori* infection:

- a. GERD
- b. Celiac disease
- c. Gastric lymphoma
- d. Achalasia of the cardia
- e. Esophagitis

**ANSWER:C**



33) Which of the followings is **NOT** risk factors for NSAID-induced gastrointestinal ulcers:

- a. Age over 60 years
- b. Past history of peptic ulcer or adverse event with NSAIDs
- c. Concomitant corticosteroid use
- d. Female gender
- e. Multiple NSAIDs use

**ANSWER:D**

These include increased age (>65 years), past history of peptic ulcer disease, heart disease, and co-prescription of antiplatelets, corticosteroids and anticoagulants. In addition, using higher doses of NSAIDs leads to an increased risk of upper gastrointestinal complications. 7 Prolonged NSAID use and H. Jun 1, 2017

34) Regarding 'nutcracker' oesophagus, which statement is **TRUE**:

- a. Can be diagnosed easily with manometry in between the attacks
- b. There is extremely forceful peristaltic activity leading to episodes of chest pain and dysphagia
- c. There is no medical treatment available
- d. Type of esophageal malignancy
- e. None of the above

**ANSWER: B**

- Hypertensive peristalsis (nutcracker esophagus): an obsolete term according to the Chicago classification; previously used to describe hypertensive propagative esophageal contractions involving progressive peristaltic waves with an amplitude  $\geq 220$  mm Hg on conventional esophageal manometry.  [3][4]

35) Which one of the following drugs may cause hepatic fibrosis:

- a. Nifedipine
- b. Paracetamol
- c. Methotrexate
- d. Oral contraceptives
- e. Azathioprine

### ANSWER:C

Exclude secondary causes of fatty liver:

- Drugs: steroids, amiodarone, MTX, CCB, tamoxifen
- Altered nutritional states: intestinal bypass surgery, rapid weight loss, TPN cachexia (starvation)
- Metabolic/genetic: Wilson's disease, lipodystrophy
- Miscellaneous: HIV, IBD, bacterial overgrowth

36) A 71-year-old man presents with a 2 year history of **intermittent** problems with **swallowing**. His wife has also noticed that he has **halitosis** and coughs at night. His medical history is significant for type 2 diabetes Mellitus. He has good appetite and his weight has been stable. Clinical examination is unremarkable. What is the most likely etiology for his swallowing problems?

- a. Achalasia
- b. Zenker's diverticulum
- c. esophageal Candidiasis
- d. esophageal peptic stricture
- e. esophageal adenocarcinoma

## ANSWER:B

Upper esophageal diverticula (e.g., Zenker diverticulum)

- Most patients report some degree of dysphagia.
- Additional symptoms can include:
  - Regurgitation of undigested food
  - Halitosis ☒
  - Aspiration pneumonia
  - Dysphonia
  - Coughing after ingesting food
  - Retrosternal pressure sensation and pain
  - Weight loss ☒
  - Neck mass (only with large upper esophageal diverticula)

37) A 26-year-old female known to have **ulcerative colitis** presented to your office after visiting her General practitioner who noticed that she is taking inappropriate medications for her disease to maintain remission. Which one of the following is the most likely medication?

- a. Imatinib
- b. Adalimumab
- c. Methotrexate
- d. Mesalamine
- e. Azathioprine

**ANSWER:C**

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## **Management Of Ulcerative Colitis**

Steroids

5 ASA

Azathioprine/6MP

Biological Treatment :

Infliximab

Adalimumab

Golimumab

Vedolizumab

Tofacitinib

Ustekinumab

38) A 34-year-old man presented to your clinic with epigastric pain and heartburn of two weeks duration. He also reported some episodes of increased bowel movements in the last month. He denies any significant weight loss or blood per rectum. Upper endoscopy reveals erosive esophagitis and a 1-cm clean-based ulcer in the duodenal bulb. Gastric biopsies show no H.pylori on H&E stain. He denies any NSAID or aspirin use. What is the most appropriate next step?

- a. Sucralfate slurry four times daily
- b. Transfuse one unit of packed red blood cells
- c. Obtain magnetic resonance enterography
- d. Obtain fasting gastrin level
- e. Repeat upper endoscopy in 4 weeks

## ANSWER: D

### Zollinger-Ellison syndrome

Gastrin-secreting tumor (gastrinoma) of duodenum or pancreas. Acid hypersecretion causes recurrent ulcers in duodenum and jejunum. Presents with abdominal pain (peptic ulcer disease, distal ulcers), diarrhea (malabsorption). Positive secretin stimulation test: ↑ gastrin levels after administration of secretin, which normally inhibits gastrin release. May be associated with MEN1.

39) Which of the following is a specific antibody in primary biliary cirrhosis?

- a. ASMA
- b. AMA
- c. p-ANCA
- d. ANA

**ANSWER: B**

40) Which of the following improves with phlebotomy in hemochromatosis?

- a. Arthropathy
- b. Hypogonadism
- c. Pigmentation
- d. Cirrhosis

**ANSWER: C**

**Phlebotomy Improves Survival**

Preventable: all clinical manifestations

Reversible: cardiac dysfunction, glucose intolerance, hepatomegaly, skin pigmentation

Irreversible: cirrhosis  
risk of hepatocellular carcinoma  
arthropathy, hypogonadism

41) A 21-year-old woman with schizophrenia was witnessed swallowing a foreign body while playing with her hearing aid. She denies swallowing anything and is unwilling to provide any additional history. Denies dysphagia, odynophagia, or chest pain. On lateral X Ray there is a round metal object in the distal esophagus. What is the next step?

- a. Immediate upper endoscopy
- b. Do nothing, its small may allow it to pass
- c. Surgical referral
- d. IV glucagon
- e. Serial x-ray for passage into stomach

**ANSWER:A**

42) A 52-year old woman is referred for evaluation of abnormal liver function tests that were found as part of a comprehensive physical examination. Her body mass index is 33 and has non-insulin requiring type 2 diabetes. Physical exam is unremarkable. She may have one or two glasses of wine on the weekends but denies other alcohol use. Lab results are as follows: Bilirubin 1.1 mg/dl (0.2 – 1.2) ALT 83 U/L (7–40) AST 77 U/L (7–40) Alk Phos 127 U/L (30-115), Hepatitis A IgG (+); Hepatitis A IgM (-) Hepatitis B sAg, BsAb, BcAb all (-), Hepatitis C Antibody (+); Hepatitis C PCR (-), ANA 1:20 (Normal  $\leq$  1:20) Anti-Smooth muscle Antibody (-), ceruloplasmin, Iron studies, alpha-1-antitrypsin are all normal The most likely diagnosis is:

- a. Hepatitis C
- b. Non-alcohol fatty liver disease (NAFLD)
- c. Autoimmune hepatitis
- d. Hepatitis A
- e. Primary biliary cirrhosis

## ANSWER: B

### Evaluation of Suspected NAFLD

Exclude significant alcohol consumption

- no more than 1-2 drinks per day

Exclude secondary causes of fatty liver:

- Drugs: steroids, amiodarone, MTX, CCB, tamoxifen
- Altered nutritional states: intestinal bypass surgery, rapid weight loss, TPN, cachexia (starvation)
- Metabolic/genetic: Wilson's disease, lipodystrophy
- Miscellaneous: HIV, IBD, bacterial overgrowth

- AST increases more than ALT with disease progression
- AST/ALT ratio  $> 1 \rightarrow$  advanced fibrotic form of NAFLD
- ratio almost never  $> 2$

43) A 45-year-old female patient with past medical h/o symptomatic gallstones s/p uneventful laparoscopic cholecystectomy 18 months ago. She was admitted via ER with upper abdominal pain associated with nausea and vomiting with yellow discoloration of the skin, sclera and darkening of the urine color over the past 3 days. She also had an episode of chills and undocumented fever. In the ER her V/S were BP 120/55, HR 102, T 38.9 C. Lab values were remarkable for a wbc of 13,000 k, Hb 12.3 g/dL, Alk Phos of 300 (60-118) AST 400 (< 40) and ALT of 450 (< 40). A liver ultrasound was remarkable for a CBD diameter of 11 mm (normal <6mm), without intrahepatic ductal dilation. The patient was admitted to the hospital, started on IV Ringer lactate and IV antibiotics, the most appropriate Next step is:

- a. ERCP
- b. MRCP
- c. EUS
- d. Hepatitis profile
- e. Autoimmune liver serology

### ANSWER:A

this charcot's triad ( fever ,abdominal pain,jaundice)  
indicate acute cholangitis

Acute cholangitis (ascending cholangitis) refers to a bacterial infection of the biliary tract, typically secondary to biliary obstruction and stasis (e.g., due to choledocholithiasis, biliary stricture). Charcot triad, which consists of RUQ pain, fever, and jaundice, is the classical clinical manifestation of acute cholangitis though not all patients manifest with the triad. The diagnosis of acute cholangitis is based on a combination of characteristic clinical features, evidence of systemic inflammation (i.e., leukocytosis, ↑ CRP), and evidence of cholestasis (e.g., elevated direct bilirubin, GGT, and ALP). Imaging is primarily used to identify the underlying cause of biliary obstruction. Empiric antibiotic therapy and urgent biliary drainage (e.g., ERCP ± papillotomy, EUS-guided biliary drainage) within 48 hours of presentation are the mainstays of treatment. Treatment of the underlying cause (e.g., ERCP-guided stone extraction or CBD stenting) may be performed at the same time as urgent biliary drainage in stable patients with mild cholangitis or deferred until clinical improvement in patients with severe cholangitis. See also "Cholelithiasis", "Choledocholithiasis", and "Acute cholecystitis."

44) A 55-year-old man with **Crohn's disease** underwent an ileocecal resection. The surgical procedure was technically straightforward. Three months later, he was reviewed in the clinic. His appetite remained good and the abdominal pain had settled, but he was troubled by diarrhea with a daytime stool frequency of **six per day**. He also experienced fecal urgency 20–40 minutes **after eating**. The stool was watery but there was **no** blood or pus. Lab results showed Hb 13 g/dL, CRP 1 mg/L (normal < 5), normal B12 level. Stool for lactoferrin was negative, and stool for fat was negative as well. **The most likely cause of patient's related diarrhea is:**

- a. Bacterial overgrowth
- b. Bile acid diarrhea due to maldigestion
- c. Enterocolic fistula
- d. Lactase deficiency
- e. Recurrent Crohn's disease

**ANSWER: B**

The Crohn's disease lead to loss of bile acid .because bile acid re absorbed in ileum where Crohn affect .

45) A 34-year-old male patient was admitted to the hospital with new onset ascites. Ascetic fluid tap showed a WBC of 230 with 30% neutrophils, RBC 20, Protein of 4 mg/dL, and Albumin of 1 mg/dL. His serum Albumin was 2.5. Which is **correct based on ascetic fluid analysis?**

- a. SAAG is not consistent with portal hypertension
- b. There is evidence of spontaneous bacterial peritonitis
- c. This can be seen in patients with carcinomatosis
- d. This can be seen in patients with constrictive pericarditis
- e. SBP prophylaxis is indicated.

**ANSWER:D**

SAAG = 2.5 - 1 (1.5)

	SAAG (g/dL)	
	≥ 1.1	< 1.1
<b>Total protein (g/dL)</b>		
< 2.5	Cirrhosis Acute liver failure	Nephrotic syndrome
≥ 2.5	CHF Constrictive pericarditis Budd-Chiari syndrome Veno-occlusive disease	Peritoneal carcinomatosis TB peritonitis Pancreatic ascites Chylous ascites

46) 23-year-old male patient who was admitted to the hospital with fever of unknown origin, his examination was remarkable for a **systolic murmur** which was explored further with an echocardiogram that showed evidence of mitral valve vegetations. A diagnosis of infective endocarditis was made and he was started on empirical IV antibiotics when blood cultures 7 days later grew **Clostridium Septicum**. Patient received appropriate therapy and he showed significant clinical improvement. Your next appropriate step is:

- a. Upper endoscopy
- b. Colonoscopy
- c. CT abdomen and pelvis
- d. MRCP
- e. Chest X Ray

**ANSWER: B**

**Clostridium septicum** is a gram-positive bacterium that is highly associated with colonic malignancy. In acute infection, patients may exhibit nonspecific symptoms such as fever and abdominal pain. More severe complications that could be seen are cellulitis, intestinal necrosis, and septic shock which may lead to death. Sep 16, 2023

47) A 29-year-old man presents with anaemia, diarrhoea and abdominal pain. Examination reveals a palpable mass in the right lower quadrant and anal skin tags. What is the most likely underlying condition?

- a. Chronic pancreatitis
- b. Coeliac disease
- c. Crohn's disease
- d. Intestinal lymphoma
- e. Ulcerative colitis

**ANSWER:C**

## CLINICAL MANIFESTATIONS

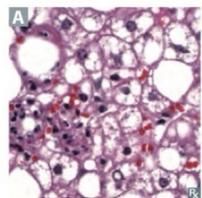
- **Ileitis and colitis** *Diarrhea, abdominal pain, weight loss, and fever are the typical clinical manifestations for most patients with ileitis, ileocolitis, or Crohn's colitis*
- **Abdominal pain**
- **Bleeding** *gross bleeding is much less frequent than in ulcerative colitis*
- **Perforation and fistulae** *Transmural inflammation is also associated with the development of sinus tracts that can lead to serosal penetration and bowel wall perforation*
- **Perianal disease** *perianal pain and drainage from large skin tags, anal fissures, perirectal abscesses, and anorectal fistulae*
- **Other sites of intestinal inflammation** *severe oral involvement, esophageal involvement gastroduodenal Crohn's disease, sprue-like picture*

48) A 56-year-old female is noted to have hepatomegaly. Six years ago she was diagnosed with diabetes mellitus and takes metformin 500 mg tds and Gliclazide 80 mg bd. She drinks approximately 15 units of alcohol weekly and stopped smoking 10 years ago. On examination she has a BMI of 36.2 kg/m<sup>2</sup>, no stigmata of liver disease are evident but she has 6 cm hepatomegaly. Investigations reveal: Total bilirubin 11 µmol/L (1-22) Alkaline phosphatase 145 U/L (45-105) AST 100 U/L (1-31) ALT 150 U/L (5-35) Albumin 40 g/L (37-49) Ferritin 434 µg/L (15-300). Ultrasound of the abdomen reveals an echobright appearance of the liver and gallstones in the gallbladder. What is the most likely cause of her liver disease?

- a. Alcoholic liver disease
- b. Drug induced hepatitis
- c. Gallstone disease
- d. Haemochromatosis
- e. Non-alcoholic steatohepatitis (NASH)

## ANSWER: E

### Nonalcoholic fatty liver disease



Associated with metabolic syndrome (obesity, insulin resistance, HTN, hypertriglyceridemia, ↓ HDL); obesity → fatty infiltration of hepatocytes → cellular “ballooning” and eventual necrosis. Steatosis present without evidence of significant inflammation or fibrosis. May persist or even regress over time.

Nonalcoholic steatohepatitis—associated with lobular inflammation and hepatocyte ballooning → fibrosis. May progress to cirrhosis and HCC.

49) A 40-year-old single man returned from holiday in Europe with mild bloody diarrhoea which had lasted for two weeks. He had lost 2.5 kg in weight, had occasional lower abdominal cramping discomfort and a painful swelling of his left knee. What is the most likely diagnosis?

- a. Amoebiasis
- b. Campylobacter infection
- c. Crohn's disease
- d. Gonococcal septicaemia
- e. Ulcerative colitis

**ANSWER: B**

*Campylobacter jejuni*



Gram  $\ominus$ , comma or S shaped (with polar flagella) **A**, oxidase  $\oplus$ , grows at  $42^{\circ}\text{C}$  ("*Campylobacter* likes the **hot campfire**").

Major cause of bloody diarrhea, especially in children. Fecal-oral transmission through person-to-person contact or via ingestion of undercooked contaminated poultry or meat, unpasteurized milk. Contact with infected animals (dogs, cats, pigs) is also a risk factor.

Common antecedent to Guillain-Barré syndrome and reactive arthritis.

50) A 25-year-old student has complained of recurrent bloody diarrhoea and symptoms of iritis. He has a painful nodular erythematous eruption on the shin and examination of the anus reveals anal tags. What investigation would you like to perform to confirm the diagnosis?

- a. Barium enema
- b. Colonoscopy
- c. HLA B-27
- d. Rheumatoid factor
- e. Serum ACE

**ANSWER: B**

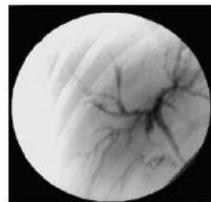
IBD is a Systemic Inflammatory Disorder!



Skin  
Eye



Bones and Joints  
Kidney  
Hepatobiliary



- Eye involvement with conjunctivitis, uveitis and episcleritis
- ankylosing spondylitis & Sacoilitis
- peripheral arthritis
- Sclerosing cholangitis, steatosis, cholelithiasis
- Venous and arterial thromboembolism
- Autoimmune hemolytic anemia
- Skin disorders such as erythema nodosum and pyoderma gangrenosum
- Renal calculi, uretric obstruction, fistulas.
- Metabolic bone disease

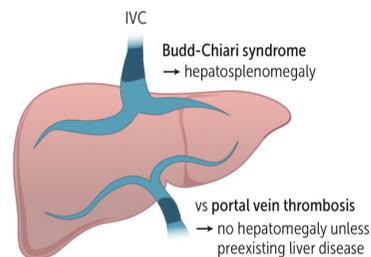
51) A 28-year-old lady develops abdominal pain, jaundice and ascites worsening over a week. She drinks ten units of alcohol each week and takes the oral contraceptive pill. Which of the following findings would make a diagnosis of progressed hepatic vein thrombosis (Budd-Chiari syndrome) most likely?

- a. Acute liver failure
- b. Alanine aminotransferase (ALT) of 345 U/L (5 - 35)
- c. Ankle oedema
- d. Ascites fluid protein of 38 g/L
- e. Tender enlarged liver

## ANSWER: E

**Budd-Chiari syndrome** Hepatic venous outflow tract obstruction (eg, due to thrombosis, compression) with centrilobular congestion and necrosis → congestive liver disease (hepatomegaly, ascites, varices, abdominal pain, liver failure). Absence of JVD. Associated with hypercoagulable states, polycythemia vera, postpartum state, HCC. May cause nutmeg liver (mottled appearance).

**Portal vein thrombosis**—thrombosis in portal vein proximal to liver. Usually asymptomatic in the majority of patients, but associated with portal hypertension, abdominal pain, fever. May lead to bowel ischemia if extension to superior mesenteric vein. Etiologies include cirrhosis, malignancy, pancreatitis, and sepsis.



52) A 43-year-old female presents with abdominal pain and watery diarrhoea. She has been previously investigated for infertility. She was given a proton pump inhibitor by her GP for six weeks with no relief of her symptoms. Investigations: Haemoglobin 122 g/L (115-165) Calcium 3 mmol/L (2.2-2.6) Albumin 42 g/L (37-49) Phosphate 0.8 mmol/L (0.8-1.4) CRP 10 mg/L, Endoscopy: Multiple small duodenal ulcers, H. pylori Negative What is the likely diagnosis?

- a. Crohn's disease
- b. Cushing's syndrome
- c. Multiple endocrine neoplasia
- d. NSAID induced PUD
- e. Small bowel lymphoma

### ANSWER:C

High Ca -parathyroid adenoma

Infertility-pituitary tumor

Multiple ulcer -ZES

#### MEN1

Pituitary tumors (prolactin or GH)

Pancreatic endocrine tumors—Zollinger-Ellison syndrome, insulinomas, VIPomas, glucagonomas (rare)

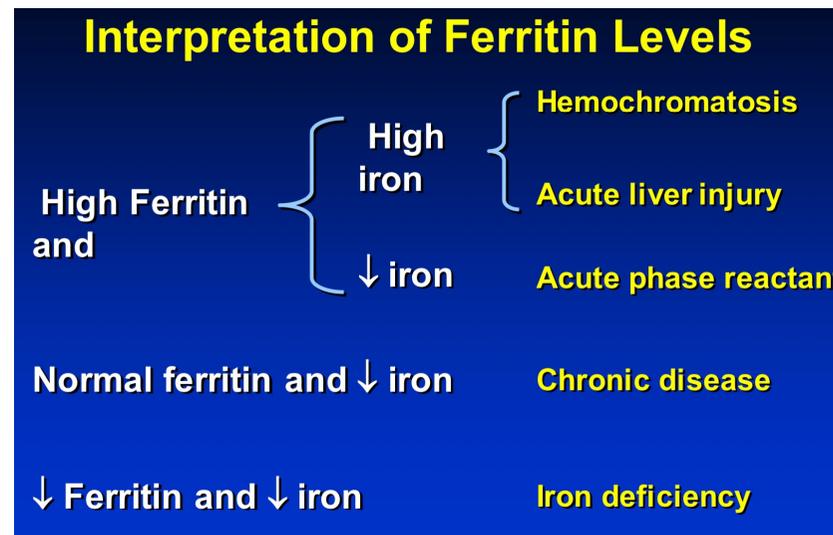
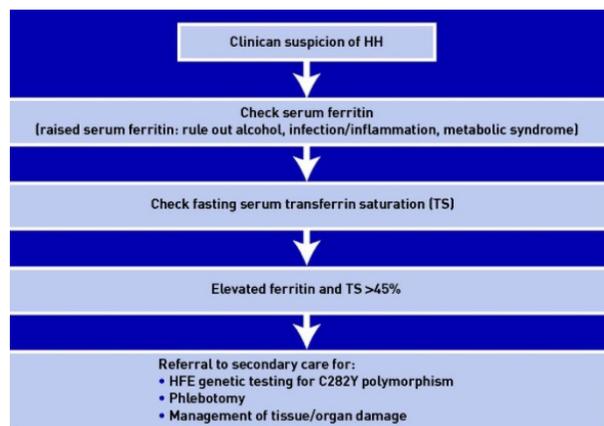
Parathyroid adenomas

Associated with mutation of *MEN1* (tumor suppressor, codes for menin, chromosome 11), angiofibromas, collagenomas, meningiomas

53) A 42-year-old man being investigated for diabetes and impotence is noted to have the following results: Alanine aminotransferase 30 U/L (5- 35) Aspartate aminotransferase 22 U/L (1-31) Fasting plasma glucose 7.4 mmol/L (3.0-6.0) Ferritin 1000 µg/L (15-300) Which one of the following would be the direct next appropriate investigation?

- Bone marrow smear and iron stain
- Liver biopsy
- Blood film
- Serum transferrin receptors
- Transferrin saturation

**ANSWER:E**



54) A 67 year old male patient presented with history of diarrhea for 1 year duration with significant weight loss, he has history of heavy alcohol use with recurrent abdominal pain in the past and resection of his terminal ileum due to perforated appendix, he has upper and lower endoscopy which were normal, your next step in investigating this patient:

- a. Gastroscopy and aspiration for bacterial culture
- b. Biliary excretion scan(HIDA) scan to look for biliary dysfunction
- c. Faecal elastase for pancreatic insufficiency
- d. MRI small bowel
- e. Capsule endoscopy

**ANSWER:C**

he is alcoholic so may cause pancreatic insufficiency.

55) A 54-year-old woman presented with an 18-month history of chest pain and dysphagia for both solids and liquids with no weight loss. She is a non-smoker and drinks 16 units of alcohol per week. The clinical examination was normal. What is the most likely diagnosis?

- a. Achalasia
- b. Bronchial neoplasm
- c. Oesophageal neoplasm
- d. Oesophageal web
- e. Pharyngeal pouch

## ANSWER:A

Achalasia is a condition characterized by impaired relaxation of the lower esophageal sphincter (LES) due to degeneration of inhibitory neurons within the esophageal wall. Symptoms include dysphagia to both solids and liquids (most common), regurgitation, retrosternal pain, and weight loss. High-resolution esophageal manometry is the preferred test to confirm the diagnosis. Upper endoscopy is indicated for all patients to rule out pseudoachalasia, which manifests similarly to achalasia but is caused by another underlying condition (e.g., malignancy). Barium esophagram is often obtained to support the diagnosis and/or assess treatment outcomes in patients with persistent or recurrent symptoms. Definitive treatment options are pneumatic dilation, laparoscopic Heller myotomy, and peroral endoscopic myotomy (POEM); the choice depends on the subtype of achalasia. If definitive treatment is not possible, an injection of botulinum toxin may be used. Medical therapy (e.g., nifedipine) may be considered as a last resort option.

56) Which of the following is an indication for severe acute hepatic failure in viral hepatitis?

- a. High Alk phos
- b. High AST
- c. Increased PT
- d. Hyperbilirubinemia

## ANSWER:C

### Approach <sup>[1]</sup>

- Obtain initial laboratory studies to support the diagnosis and assess severity based on organ dysfunction.
- ALF is confirmed if all of the following are present:
  - Encephalopathy
  - Abnormal liver chemistries
  - Coagulopathy (INR > 1.5)
- Obtain imaging to rule out alternative diagnoses, e.g., head CT to rule out other causes of encephalopathy.
- Identify the underlying cause.
  - Consider causes based on patient history, e.g., alcohol-associated fatty liver, metabolic dysfunction-associated steatotic liver disease, or drug-induced liver injury. 
  - Obtain additional laboratory studies based on clinical suspicion.
  - Liver biopsy may be considered if the underlying cause remains unclear.

57) Which of the following is wrong about duodenal ulcers?

- a. They are premalignant
- b. They are the most common type of peptic ulcer
- c. They are mostly associated with a well-known bacterial infection
- d. All of the above

**ANSWER:A**

Gastric ulcer are premalignant

58) Which of the following is **not** found in celiac disease duodenal biopsy?

- a. lymphocytes infiltrate
- b. eosinophilic infiltrate
- c. villous atrophy
- d. crypt hyperplasia

**ANSWER:B**

Histology: villous atrophy, crypt hyperplasia **A**,  
intraepithelial lymphocytosis.

59) The **least** important Hepatitis B serum level is:

- a. HBcAb
- b. HBeAg
- c. HBcAg
- d. HBsAg

**ANSWER:C**

## Diagnosis

- A battery of serological tests are used for the diagnosis of acute and chronic hepatitis B infection.
- HBsAg - used as a general marker of infection.
- HBsAb - used to document recovery and/or immunity to HBV infection.
- Anti-HBc IgM - marker of acute infection.
- Anti-HBc IgG - past or chronic infection.
- HBeAg – a marker of HBV replication and infectivity.
- Anti-HBe - virus is no longer replicating. However, the patient can still be positive for HBsAg which is made by integrated HBV.
- HBV-DNA - indicates active replication of virus, more accurate than HBeAg especially in cases of escape mutants. Used mainly for monitoring response to therapy.

60) Which of the following is not a mode of transmission for hepatitis B infection?

- a. Blood
- b. Feco-orally
- c. Needlestick injury
- d. Sexual contact

**ANSWER:B**

## Hepatitis B Virus Modes of Transmission

- **Sexual** - sex workers and homosexuals are particularly at risk.
- **Parenteral** - IVDA, Health Workers are at increased risk.
- **Perinatal** - HBeAg +ve > HBeAg -ve mother

61) Bile acids and B12 are mainly absorbed in:

- a. Duodenum
- b. Jejunum
- c. Distal ileum
- d. Colon

**ANSWER:C**

62) Beading of the bile ducts on MRCP in an adult male suggests which diagnosis?

- a. Ascending cholangitis
- b. Caroli disease
- c. PBC
- d. PSC

**ANSWER:D**

	PATHOLOGY	EPIDEMIOLOGY	ADDITIONAL FEATURES
<p><b>Primary sclerosing cholangitis</b></p> 	<p>Unknown cause of concentric "onion skin" bile duct fibrosis → alternating strictures and dilation with "beading" of intra- and extrahepatic bile ducts on ERCP <b>A</b>, magnetic resonance cholangiopancreatography (MRCP).</p>	<p>Classically in middle-aged males with ulcerative colitis.</p>	<p>Associated with ulcerative colitis. MPO-ANCA/ p-ANCA ⊕. ↑ IgM. Can lead to 2° biliary cirrhosis. ↑ risk of cholangiocarcinoma and gallbladder cancer.</p>

63) A 50 year old patient who is known to have left side ulcerative colitis presented to you with flare up of his disease with diarrhea and rectal bleeding, you admitted him to the medical floor. Which one of the following drugs should **not** be initiated at this acute stage?

- a. IV steroids
- b. Mesalamine
- c. Azathioprine
- d. LMWH sc
- e. Rectal enema (Mesalamine 1 gr)

**ANSWER:C**

**Azathioprine** may be considered in combination with anti-TNF therapy for induction of remission or as monotherapy for maintenance of remission; it is **not** recommended as monotherapy for induction of remission. [2]

*Steroid I/V 3-5 days*

*If No response*

*cyclosporine?/Infliximab for toxic megacolon*

*If No response to therapy*

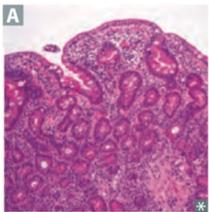
*Consider colectomy*

## 64) Not present in celiac disease?

- a. Migratory myalgia
- b. Diarrhea
- c. Osteoporosis
- d. IDA
- e. Dermatitis herpetiformis

### ANSWER:A

#### Celiac disease



Also called gluten-sensitive enteropathy, celiac sprue. Autoimmune-mediated intolerance of gliadin (gluten protein found in wheat, barley, rye). Associated with HLA-DQ2, HLA-DQ8, northern European descent.

Primarily affects distal duodenum and/or proximal jejunum → malabsorption and steatorrhea.

Treatment: gluten-free diet.

Associated with dermatitis herpetiformis, ↓ bone density, moderately ↑ risk of malignancy (eg, T-cell lymphoma).

D-xylose test: abnormal.

Serology: ⊕ IgA anti-tissue transglutaminase (IgA tTG), anti-endomysial, and anti-deamidated gliadin peptide antibodies.

Histology: villous atrophy, crypt hyperplasia A, intraepithelial lymphocytosis.

65) A 60-year-old female, presented with high liver enzymes, normal GGT and Alk phosphatase, all are important for diagnosis **except**:

- a. ANA
- b. ferritin
- c. serum ceruloplasmin
- d. AMA
- e. hepatitis C serology

**ANSWER:D**

PBC will raise ALK

66) A Patient presented with upper GI bleeding. He is found to have duodenal ulcer on EGD and positive H pylori test. You started eradication treatment, what to do next?

- a. retest by EGD 8 weeks later
- b. retest by fecal antigen test 8 weeks later
- c. retest by serology 8 weeks later
- d. no need to repeat tests
- e. keep him on omeprazole lifelong

**ANSWER: B**

To sure if H pylori eradicated

67) which of the following is not associated with severe Ulcerative Colitis flare?

**Answer:** Arthritis

68) One of the following is an indication to repeat endoscopy:

**Answer:** Esophageal Varices

69) Patient with intermittent Dysphagia and Eosinophils on Biopsy, best treatment is:

**Answer:** Inhaled corticosteroids sprayed in the mouth and swallowed

70) A patient with chronic liver cirrhosis suffers from encephelopathy. All of the following can be done except:

**Answer:** TIPS

71) Not an alarming sign in GERD that requires urgent endoscopy?

**ANSWER:** chest pain

#### ALARM-Symptoms

**A**nemia

**L**oss of weight

**A**norexia

**R**ecent onset of progressive symptoms

**M**asses & Melaena/haematemesis

**D**ysphagia/dysphagia difficulty

**ALARMS or > 55**  
→ Upper GI Endoscopy

72) Which of the following is blocked by hepcidin?

**ANSWER:** ferroportin

73) A patient with Ulcerative colitis developed obstructive jaundice. The best next step is:

**ANSWER:** MRCP

74) Which of the following is **not** used for confirmation of H pylori eradication?

**ANSWER:** Serology

75) Which of the following is not connected to the disease activity in IBD?

**ANSWER:** uveitis

76) A patient present with ascites of acute onset, hepatomegaly, abdominal pain, elevated LFT and Hb 18. What is the most likely cause?

**ANSWER:** Budd chiari syndrome

77) The most common cause of upper GI bleeding is:

**Answer :** peptic ulcer

78) A case of hepatitis with the following serological results (HbsAg -, HbsAb +, HbcAb +, Hep C Ab -, and Hep C + in PCR). What is the diagnosis?

**ANSWER:** Acute Hep C

79) Patient presented with lower abdominal pain and intermittent loose stools, she reported slight improvement of pain after defecation, she denied arthralgia, eye pain, (and other extraintestinal sx, can't remember), colonoscopy revealed erythema and ulcerations in the ascending colon, descending colon, sigmoid colon, **sparing** the transverse colon and rectum, and with **cobblestone appearance**, what is the diagnosis:

- A. ulcerative colitis
- B. Crohn's disease

**ANSWER: B**

80) which of the following is associated with increasing severity of IBD:

- A. PSC
- B. Uveitis
- C. Erythema nodosum
- D. pyoderma gangrenosum
- E. sacroilitis

**ANSWER: C**

They are the most common skin condition associated with IBD, affecting 3% to 10% of people with ulcerative colitis and 4% to 15% of those with Crohn's disease. Erythema nodosum tends to come and go with intestinal inflammation. It flares up when you are having a flare of IBD.

81) Not associated with a fat malabsorption:

- A. Chronic pancreatitis
- B. Cystic fibrosis
- C. Plummer Vinson syndrome
- D. Pancreatic cancer

ANSWER: C

82) a 44-year-old man with **cirrhosis** due to chronic HCV infection presents to the clinic with new progressive abdominal distension and weight gain. On physical examination the abdomen is symmetrically distended, with positive shifting dullness and fluid thrill. There is **no** tenderness on superficial or deep palpation. You suspect that he has developed ascites, which of the following statements is true regarding ascites?

- a. Fluid restriction is a standard part of ascites management
- b. Diagnostic paracentesis is not indicated for this patient
- c. Increased angiotensin II secretion is part of the pathophysiology
- d. Cirrhotic ascites forms as a result of increased fenestrations in hepatic sinusoid
- e. Ascites occurs at a rate of 50% per year in cirrhotics

**ANSWER: C**

82) Case: patient with sudden onset abdominal pain for 12 hours (110 bpm, 110/65 mmHg, 22 breath/min) he was cool and pale and he passed marron-like (dark) stool 3 times in the last 24 hours, pH of blood was 7.15, what is the diagnosis:

A. Volvulus

B. Mesenteric ischemia

**ANSWER: B**

83) Which of the following is not a contributing factor to GERD:

- A. Decreased salivation
- B. Increased resting tone of lower esophageal sphincter
- C. Transient LES relaxations
- D. Impaired esophageal peristalsis
- E. Delayed gastric emptying

**ANSWER: B**

84) Young female patient with IDA and diarrhea (labs: normal IgG levels, normal IgA levels), what is the best initial step:

- A. Anti tissue transglutaminase IgA
- B. Anti tissue transglutaminase IgG
- C. Anti Gliadin IgA
- D. Anti Gliadin IgG

**ANSWER: A**

85). A 64 year old woman with CAD,hyperlipidemia and diabetes presented with abdominal distention and ascites. Blood showed protein 7 mg/dl and serum albumin 3.4mg/dl. Paracentesis was done and showed fluid protein 2.2mg/dl,fluid albumin 1.6mg/dl. What is the cause of her ascites?

- A. Cirrhosis
- B. Peritoneal carcinomatosis
- C. Nephrotic syndrome
- D. Congestive heart failure

**ANSWER: A**

	SAAG (g/dL)	
	≥ 1.1	< 1.1
Total protein (g/dL)		
< 2.5	Cirrhosis Acute liver failure	Nephrotic syndrome
≥ 2.5	CHF Constrictive pericarditis Budd-Chiari syndrome Veno-occlusive disease	Peritoneal carcinomatosis TB peritonitis Pancreatic ascites Chylous ascites

86) Patient presented with abdominal pain and RUQ abdominal mass, he has a history of hepatitis virus infection since several years, he shows **no** signs of cirrhosis, serum alpha fetoprotein was 13,500, which of the following would most likely be the cause of HCC:

- A. Hepatitis A
- B. Hepatitis B
- C. Hepatitis C
- D. Hepatitis D
- E. Hepatitis E

**ANSWER: B**

87) Patient presented with abdominal distention and ascites, AST 710 ALT 520 ALP 190 bilirubin 3 Hb 18.5, diagnosis?

**Ans:** Budd-chiari syndrome

**88)** One of the following is not associated with precipitation of hepatic encephalopathy:

- A. Hyperkalemia
- B. SBP
- C. diuretic abuse
- D. GI bleeding
- E. Constipation

**ANSWER:A**

HYPokalemia not HYPER

89) Pt complained of diarrhea, stool analysis found to have numerous RBCs and WBCs, what is type of diarrhea?

- A. Secretory
- B. Osmotic
- C. Inflammatory
- D. Fatty

**ANSWER:C**

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90) Which of the following is not an indication for paracentesis?

- a- Tense ascites
- b- New-onset ascites
- c- Anemia
- d- Worsening kidney function
- e- Fever

**Answer: C**

91) **Not** an alarming sign in GERD that requires urgent endoscopy? – Chest pain (the others were significant wt loss, dysphagia, age above 55, hemoptysis).

92) Which is blocked by hepcidin? – ferroportin

93) A feature of colon cancer following UC: Multicentric

94) Which of the following is present in CD but not UC? – Deep ulcers with fistulas

95) Something that normally inhibits gastric acid secretion?

**Ans:** Peptide YY (the others were histamine, Ach, amino acids and gastrin)

96) A 67-year-old man with IDA, what to do?

Colonoscopy

97) Not present in celiac disease? – Migratory myalgia

98) A case of mild elevation of ALT, AST and highly elevated ALP and GGT, which of the following is not included in the differential?

a- Ischemic hepatitis

b- Fatty liver disease

c- Hemochromatosis

d- Wilson's (this is the answer, low ALP is a characteristic of Wilson's).

Also ischemic hepatitis presents with massive hepatic necrosis (not mild elevation of ALT and AST).

اللهم أخرجني من حولي وقوتي إلى حولك وقوتك ، ومن عزمي إلى  
عزمك ، ومن ضعفي إلى قوتك ، ومن انكساري إلى عزتك ، ومن  
ضيق اختياري إلى سعة إرادتك ، اللهم اخرجني من ضيق تفكيري  
إلى سعة تدبيرك . اللهم أجعل لي من كل ضيق فرجاً ومخرجاً  
اللهم امين .