Hepatology Quiz:

1. Which of the following is an incorrect match-up between disease and LFT abnormalities?
   a) Acute acetaminophen-induced hepatitis: AST 4,000 / ALT 3,000
   b) Chronic Hepatitis C: AST 56 / ALT 37
   c) Alcoholic Hepatitis: AST 1500 / ALT 747
   d) Non-Alcoholic Fatty Liver Disease: ALT 87 / AST 65
   e) Ischemic Hepatitis: AST 1282 / ALT 1085

2. All of the following regarding TIPS are true, except:
   a) It is done by placing a stent between the hepatic vein and the portal vein in the liver under radiological control.
   b) The objective is to produce a porto-systemic shunt to reduce the portal pressure and hence the variceal bleeding
   c) Patency of the portal vein should be confirmed before the procedure
   d) May precipitate or worsen hepatic encephalopathy
   e) If re-bleeding occurs, the shunt should be removed

3. All of the following are true of spontaneous bacterial peritonitis in a cirrhotic, except:
   a) It is typically a mono-microbial infection
   b) Patients often present with abdominal pain and fever
   c) Recurrence is common, but there is no way to prevent it
   d) It is defined by >250 neutrophils/mm3 AND a positive ascites fluid culture
   e) Gram negative enteric organisms are the most common seen in SBP

4. All of the following can be precipitating factors of hepatic encephalopathy, except:
   a) Aggressive diuresis
   b) Medication non-compliance
   c) Occult Infection
   d) Diarrhea or constipation
   e) Placement of a TIPS
   f) Development of hepatocellular carcinoma
   g) All of the above

5. Which of the following is true of Acute Liver Failure?
   a) Defined by a prolonged PT and hepatic encephalopathy in a patient without any known underlying liver disease
   b) If the patient is not jaundiced, they do not have acute liver failure
   c) The most common cause in the United States is viral hepatitis
   d) Patients who meet the criteria for acute liver failure can be safely monitored in a community hospital or on a floor bed until they become hypotensive or require intubation
   e) All patients with acute liver failure should undergo a liver biopsy to determine the cause
6. Which of the following is not a cause of acute hepatitis?
   a) Autoimmune hepatitis
   b) Hepatitis B
   c) Drug-Induced Hepatitis
   d) Hepatitis A
   e) Hemochromatosis

7. Which of the following is not a requirement in the diagnosis of Acute Liver Failure?
   a) Coagulopathy (INR >1.5)
   b) Any Degree of Hepatic Encephalopathy
   c) No pre-existing cirrhosis (except Wilson’s or Hepatitis B)
   d) Duration of symptoms < 26 weeks
   e) Total Bilirubin >6

8. All of the following should be considered in a patient with newly diagnosed HCV/ETOH cirrhosis, MELD 27 and ascites.
   a) Ultrasound imaging for HCC surveillance q 6 months
   b) EGD to evaluate for the presence of esophageal varices
   c) Evaluate and Listing for Liver Transplantation
   d) Serological evaluation for hepatitis A and B, vaccination when appropriate
   e) Encourage alcohol abstinence and alcohol rehabilitation if indicated
   f) Treatment of hepatitis C with Pegylated, Ribavirin, and Telaprevir

9. All of the following is indicated in a patient with ETOH cirrhosis who presents with hematemesis, hypotension, and a prior history of bleeding esophageal varices except?
   a) ICU admission
   b) Intubation for Airway Protection
   c) Octreotide Infusion, 50 mcg/hr
   d) Antibiotic prophylaxis with Ceftriaxone 1gm IV q24 hrs
   e) Interventional Radiology Consultation for possible TIPS
   f) Initiation of non-selective Beta-blocker therapy for primary prophylaxis of variceal bleeding

10. 43 yo alcoholic man with 3 months of abdominal distension, leg edema, and dyspnea. Exam: spiders, distant heart sounds, marked ascites, and leg edema.
    
    CXR: mild cardiomegaly
    T.bili 1.5, Albumin 3.5, INR 1.2
    U/S: ascites, coarse liver, patent hepatic and portal veins
    Abd Fluid: total protein 4.2 gm/dL and albumin of 2.1 g/dL
Which of the following is the most likely cause for the ascites?
   a) Budd-Chiari Syndrome
   b) Alcoholic cirrhosis
   c) Cardiomyopathy
   d) Nephrotic syndrome
   e) Peritoneal carcinomatosis

11. A 46 yo man was transplanted for HCV-cirrhosis; at 10 months he has normal allograft function and is on immunosuppression with tacrolimus monotherapy. On Norvasc for hypertension and baby aspirin. At 1 year, he is asymptomatic and on no new medications. AST 124, ALT 187, T.bili 1.0, FK level 5.7. U/S normal. The most likely diagnosis is:
   a) Acute cellular rejection
   b) Recurrent hepatitis C
   c) CMV infection
   d) Biliary stricture
   e) Drug hepatotoxicity

12. A 45 yo male with alcoholic cirrhosis is hospitalized with fever, jaundice, and confusion. Exam shows T 38.5, jaundice, moderate to severe ascites, slow mentation and asterixis. Labs Na 130, K 4.8, Cr 2.1, T.bili 4.5, AST 50, Hgb 12.5, WBC 12,000. Paracentesis shows 5000 total cells, 90% PMN’s, Cultures of blood, urine, and ascites are pending. The most appropriate next step is:
   a) Intravenous cefotaxime
   b) IV cefotaxime and 25% albumin
   c) Increase diuretic therapy to control ascites
   d) Oral norfloxacin until culture results available
   e) Increase Lactulose

13. A 52 yo man with decompensated HCV cirrhosis is admitted with worsening renal function. On Nadolol, spironolactone, furosemide, lactulose. Afebrile, BP 95/60, jaundiced, moderate ascites but no edema. Paracentesis with removal of 200mL ascites 2 days before showed ascetic fluid protein 1.2 g/dL with 600 cells, 2% PMN’s.

<table>
<thead>
<tr>
<th></th>
<th>Na</th>
<th>Cr</th>
<th>Alb</th>
<th>Bilirubin</th>
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<tbody>
<tr>
<td>1 week PTA</td>
<td>128</td>
<td>0.9</td>
<td>2.4</td>
<td>5.3</td>
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<tr>
<td>Day 1</td>
<td>120</td>
<td>1.8</td>
<td>2.3</td>
<td>8.7</td>
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The most likely cause of renal dysfunction is:
   a) Prerenal azotemia
   b) Post-paracentesis circulatory dysfunction
   c) Acute tubular necrosis
   d) Spontaneous Bacterial Peritonitis
   e) HCV-related glomerulonephritis
14. A 23 yo female is brought in with 2 weeks of jaundice and 24 hours of somnolence. She became sexually active with a man 16 weeks ago; he is known to have hepatitis B.

Exam: jaundice, disorientation, asterixis. Lab: ALT 1648, T.bili 12.5, INR 2.4, HB sAg negative, anti-HCV negative, and anti-HAV negative

Which one of the following would you advise now?

a) Serologic studies for herpes
b) Ceruloplasmin
c) IgM anti-HBc
d) ANA
e) Start tenofovir

15. 63 yo asymptomatic woman sent because of abnormal ALT two months after starting atorvastatin 20 mg/day. Pre-treatment ALT was normal. No risk factors for liver disease. Exam is notable for mild obesity. AST and ALT were 65. CBC, ALP, t.bili, INR, and albumin are normal.

What would be the best next step?

a) Observe and repeat ALT in 3 months
b) Liver Biopsy
c) Liver Ultrasound
d) Stop atorvastatin
e) Check AMA, ANA, HBsAg, and anti-HCV