

Informatii colectie:

1. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers

- a) Immune complex-mediated tissue damage appears to play a pathogenetic role in the extrahepatic manifestations of acute hepatitis B
- b) After immunization with hepatitis B vaccine, which consists of HBsAg alone, anti-HBs is the only serologic marker to appear
- c) The majority of cells in the liver are Kupffer cells, stellate (Ito or fat-storing) cells
- d) Hepatitis A virus shedding in feces, viremia, and infectivity diminish rapidly once jaundice becomes apparent
- e) The most commonly used liver "function" tests are measurements of WBC and serum kreatinine

2. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Viewed by light microscopy, the liver appears to be organized in lobules
- b) In viral hepatitis vomiting can occur but is rarely persistent or prominent
- c) In cholestatic forms of viral hepatitis both hepatocellular and cholestatic injury are present
- d) After immunization with hepatitis B vaccine anti-HBc is the only serologic marker to appear
- e) HCV does not integrate into the host genome

3. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Liver receives a dual blood supply: 20% from the hepatic artery, and 80% from the portal vein
- b) HBV DNA is a quantitative marker of replicative phase
- c) In fulminant hepatitis the mortality rate is exceedingly high (>80% in patients with deep coma)
- d) Hepatitis A virus shedding in feces, viremia, and infectivity increased rapidly once jaundice becomes apparent
- e) In viral hepatitis vomiting is often persistent and prominent

4. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) After acute illness, anti-HAV of the IgM class remains detectable indefinitely
- b) In cholestatic forms of viral hepatitis hepatocellular injury are not present
- c) In VHE with the onset of clinical jaundice, the constitutional prodromal symptoms do not diminish
- d) 80% of liver blood supply is nutrient-rich blood from the portal vein arising from the stomach, intestines, pancreas, and spleen.
- e) In fulminant hepatitis the patients who survive may have a complete biochemical and histologic recovery

5. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Patients with serum anti-HAV are immune to reinfection
- b) AST is found primarily in the liver and is therefore a more specific indicator of liver injury.
- c) In viral hepatitis patients usually report darkening of the urine before they notice scleral icterus
- d) There is no differences among genotypes of HCV in responsiveness to antiviral therapy
- e) The most commonly used liver "function" tests are measurements of serum bilirubin, ALAT, albumin, and prothrombin time

6. **Capitol:** hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) The synthesis functions of hepatocytes include the synthesis of most essential serum proteins (albumin, carrier proteins, coagulation factors, many hormonal, growth factors)
- b) A history of injection drug use, even in the remote past, is of great importance in assessing the

risk for hepatitis B and C

c) anti-HBc is readily demonstrable in serum, beginning within the first 1-2 weeks after the appearance of HBsAg

d) Perinatal transmission occurs primarily in infants born to anti-HBsAg-poz mothers during the third trimester of pregnancy or during the early postpartum period

e) The most sensitive indicator of acute HCV infection is the presence of anti-HCV IgG

7. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

a) HDV does integrate into the host genome

b) Generalized vasculitis (polyarteritis nodosa) develops occasionally in patients with chronic hepatitis B

c) For assessing the risk of viral hepatitis, a careful history of sexual activity is of particular importance

d) One of the hepatocytes functions is the production of bile and its carriers (bile acids, cholesterol, lecithin, phospholipids)

e) anti-HBs is readily demonstrable in serum, beginning within the first 1-2 weeks of infection

8. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

a) Like HBeAg, serum HBV DNA is an indicator of HBV replication, but tests for HBV DNA are more sensitive and quantitative

b) In viral hepatitis patients usually notice scleral icterus before they report darkening of the urine

c) HEV does integrate into the host genome

d) "liver pain" arises from stretching or irritation of Glisson's capsule, which surrounds the liver and is rich in nerve endings

e) One of the hepatocytes functions is the regulation of nutrients (glucose, glycogen, lipids, cholesterol, aminoacids)

9. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

a) Neither HDV nor HBV causes chronic liver disease

b) Aminotransferase elevations tend to be modest for chronic hepatitis B but may fluctuate in the range of 100-1000 units

c) Diarrhea is uncommon in viral hepatitis, except with severe jaundice, where lack of bile acids reaching the intestine can lead to steatorrhea

d) One of the Hepatocytes functions is the metabolism and conjugation of lipophilic compounds (bilirubin, anions, cations, drugs) for excretion in the bile or urine.

e) Generalized vasculitis (polyarteritis nodosa) develops in patients with viral hepatitis A

10. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

a) Portosystemic encephalopathy is broadly defined as an alteration in mental status and cognitive function occurring in the presence of liver failure.

b) Jaundice without dark urine usually indicates indirect (unconjugated) hyperbilirubinemia

c) In outbreaks of waterborne hepatitis E the case fatality rate is 1-2% and up to 10-20% in pregnant women.

d) Diarrhea is common in viral hepatitis E and A

e) For assessing the risk of viral hepatitis E, a careful history of sexual activity is of particular importance

11. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

a) Tests for fecal or serum HAV are routinely available.

b) A diagnosis of acute hepatitis B can be made in the absence of HBsAg when IgM anti-HBc is

detectable

- c) The diagnosis of hepatic encephalopathy is clinical and requires an experienced clinician to recognize and put together all of the various features.
- d) The stellate cells are not usually prominent unless activated, when they produce collagen and matrix.
- e) Tests for fecal or serum HAV are routinely available.

12. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Exist no differences among genotypes of HCV in responsiveness to antiviral therapy
- b) The presence of IgM anti-HBc establishes the diagnosis of acute hepatitis B
- c) HBsAg, appears concurrently with or shortly after HBeAg
- d) Jaundice is rarely detectable if the serum bilirubin level is $<43 \text{ mol/L}$ (2.5 mg/dL) but may remain detectable below this level during recovery from jaundice (because of protein and tissue binding of conjugated bilirubin)
- e) In hepatocellular diseases features of liver injury, inflammation, and necrosis predominate

13. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Maternal-infant transmission occurs with both hepatitis A and E
- b) The presence of IgG anti-HBc establishes the diagnosis of acute hepatitis B
- c) A helpful measure of hepatic encephalopathy is a careful mental status examination
- d) Several factors predict the risk of bleeding: height of wedged-hepatic vein pressure; the size of the varix; the location of the varix; tense ascites
- e) In cholestatic diseases features of inhibition of bile flow predominate

14. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) During early chronic HBV infection, HBV DNA can be detected both in serum and in hepatocyte nuclei
- b) High grade fever is common in viral hepatitis B
- c) Vertical spread of hepatitis B is uncommon, but there are no reliable means of prevention
- d) The diagnosis of hepatorenal syndrome is made usually in the presence of a large amount of ascites in patients who have a stepwise progressive increase in creatinine.
- e) Typical presenting symptoms of liver disease include jaundice, fatigue, right upper quadrant pain, nausea, abdominal distention

15. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Vertical spread of hepatitis E is common
- b) The presence of anti-HBs establishes the diagnosis of acute hepatitis B
- c) The most sensitive indicator of HCV infection is the presence of HCV RNA
- d) In many patients with liver disease the physical examination is normal unless the disease is acute or severe and advanced.
- e) The symptoms of liver disease include constitutional symptoms and the more liver-specific symptoms of jaundice, dark urine, abdominal distention, and bloating.

16. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) The prothrombin time may be elevated in hepatitis and cirrhosis as well as in disorders that lead to vitamin K deficiency
- b) Many patients are diagnosed with liver disease who have no symptoms but have abnormalities in biochemical liver tests as a part of a routine physical examination
- c) Any bilirubin found in the urine is unconjugated bilirubin

- d) Sexual exposure is a common mode of spread of hepatitis B but is rare for hepatitis C
- e) Management of chronic hepatitis A is directed at suppressing the level of virus replication

17. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) High grade fever is common in viral hepatitis C
- b) Currently, for hepatitis A and B, active immunization with vaccines is the preferable approach to prevention.
- c) In viral hepatitis, the higher the serum bilirubin, the greater the hepatocellular damage.
- d) Evaluation of patients with liver disease should be directed at (1) establishing the etiologic diagnosis, (2) estimating the disease severity, and (3) establishing the disease stage (staging)
- e) Sexual exposure is a common mode of spread of hepatitis C

18. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Currently, for hepatitis D and C, active immunization with vaccines is the preferable approach to prevention.
- b) Over time, the replicative phase of chronic HBV infection gives way to a relatively nonreplicative phase
- c) Tests for the detection of HBV DNA in liver and serum are not available.
- d) There is a poor correlation between the degree of liver cell damage and the level of the aminotransferases
- e) Fatigue is the most common and most characteristic symptom of liver disease.

19. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) A diagnosis of HDV infection can usually be made by detection of HDAg in serum
- b) Tests for fecal or serum HEV are now routinely available.
- c) In the case of HDV superinfection of a person with chronic hepatitis B, the likelihood of fulminant hepatitis and death is increased substantially
- d) The renal effects of increased aldosterone leading to sodium retention also contribute to the development of ascites and peripheral edema.
- e) Right upper quadrant discomfort occurs in many liver diseases and is usually marked by tenderness over the liver area.

20. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) In the small minority of patients with hepatitis C who lack anti-HCV, a diagnosis can be supported by detection of anti-HBc
- b) Chronic HBV infection the level of HBV DNA correlates with the level of liver injury and risk of progression
- c) Hepatitis A tends to be more symptomatic in adults
- d) Severe pain is most typical of gallbladder disease, liver abscess, and severe venoocclusive disease but is an occasional accompaniment of acute viral hepatitis
- e) Hepatitis C is one of the more common causes of jaundice in Asia and Africa but is uncommon in developed nations

21. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) In the case of HAV superinfection of a person with chronic hepatitis B, the likelihood of fulminant hepatitis and death is increased substantially
- b) Hypersplenism with the development of thrombocytopenia is a common feature of patients with cirrhosis and is usually the first indication of portal hypertension.
- c) Hepatitis E tends to be more symptomatic in young children
- d) A family history of hepatitis, liver disease, and liver cancer is also important for assessing the risk of viral hepatitis
- e) Jaundice is the hallmark symptom of liver disease and one of the most reliable marker of severity

22. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Transmission of viral hepatitis is more common in HIV-co-infected mothers and is also linked to prolonged and difficult labor and delivery, early rupture of membranes
- b) Superinfection with HDV in a patient with chronic hepatitis B often leads to clinical deterioration
- c) Only minimal changes in the serum albumin are seen in acute liver conditions such as viral hepatitis
- d) Hepatitis D remains self-limited and does not progress to chronic liver disease
- e) Generally, incubation periods for hepatitis B range from 15-45 days (mean, 4 weeks)

23. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Blood transfusions received before the introduction of sensitive ELISA for antibody to hepatitis virus is an important risk factor for chronic hepatitis
- b) Hepatic failure is defined as the occurrence of signs or symptoms of hepatic encephalopathy in a person with severe acute or chronic liver disease
- c) A family history of hepatitis, liver disease, and liver cancer is also important for assessing the risk of viral hepatitis A
- d) In VHD with the onset of clinical jaundice, the constitutional prodromal symptoms usually diminish
- e) The presence of HBsAg, with or without IgM anti-HBc, represents HBV infection

24. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Gut-derived neurotoxins that are not removed by the liver because of vascular shunting and decreased hepatic mass get to the brain and cause the symptoms of hepatic encephalopathy.
- b) Strategies for prevention of HBV infection are based on providing susceptible persons with circulating anti-HBs
- c) PEG IFN and RBV and boceprevir or telaprevir are approved therapies for chronic VHB treatment
- d) The serum albumin is a good indicator of acute or mild hepatic dysfunction
- e) Travel to an underdeveloped area of the world, exposure to persons with jaundice, and exposure to young children in day-care centers are risk factors for hepatitis A

25. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) After acute illness, anti-HCV of the IgM class remains detectable indefinitely
- b) No treatment is recommended or available for inactive "nonreplicative" hepatitis B carriers
- c) No treatment is recommended or available for inactive "nonreplicative" hepatitis B carriers
- d) A history of alcohol intake is important in assessing the cause of liver disease and also in planning management and recommendations
- e) Generally, incubation periods for HAV range from 30-180 days, mean 60-90

26. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) No antiviral treatment is available for virus hepatitis D
- b) Persons with hepatitis E have an enhanced risk of hepatocellular carcinoma
- c) Viral diseases such as infectious mononucleosis may share certain clinical features with viral hepatitis
- d) In acute hepatitis B, 95-99% of previously healthy adults have a favorable course and recover completely
- e) Typical physical findings in liver disease are icterus, hepatomegaly, hepatic tenderness, splenomegaly

27. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Patients with HEV infection can support HEV replication indefinitely

- b) Laboratory features of chronic hepatitis B do not distinguish adequately between histologically mild and severe hepatitis
- c) When HDV super-infection long-term HDV infection is the rule and a worsening of the liver disease the expected consequence
- d) Signs of advanced liver disease include muscle wasting, ascites, edema, dilated abdominal veins, hepatic fetor, asterixis, mental confusion, stupor, and coma.
- e) In acute hepatitis C, 80-90% of previously healthy adults have a favorable course and recover completely

28. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Icterus is best appreciated by inspecting the sclera under natural light
- b) Patients with long-standing cirrhosis and portal hypertension are prone to develop the hepatopulmonary syndrome
- c) No HDV carrier state has been identified after acute hepatitis D
- d) The introduction of hepatitis C vaccine and adoption of universal childhood vaccination policies resulted in a dramatic decline in the incidence of new HCV infections
- e) The prophylactic approach differs for each of the types of viral hepatitis

29. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) PCR assays are useful in following the course of HAV replication
- b) Persons with anti-HBc in serum are protected against reinfection with HCV
- c) In cirrhosis hypoalbuminemia and reduced plasma oncotic pressure also contribute to the loss of fluid from the vascular compartment into the peritoneal cavity.
- d) The hepatopulmonary syndrome is defined by the triad of liver disease, hypoxemia, and pulmonary arteriovenous shunting.
- e) In dark-skinned individuals, the mucous membranes below the tongue can demonstrate jaundice.

30. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers

- a) In cirrhosis there is an increase in intrahepatic resistance, causing increased portal pressure, and also vasodilation of the splanchnic arterial system, which, results in an increase in portal venous inflow
- b) Biosynthesis of factors II, VII, IX, and X depends on vitamin C
- c) As is true for acute VHB, ALT tends to be more elevated than AST; however, once cirrhosis is established, AST tends to exceed ALT
- d) Infection with HBV can occur in the presence of acute or chronic HDV infection
- e) The first signs of hepatic encephalopathy can be subtle and nonspecific-change in sleep patterns, change in personality, irritability, and mental dullness

31. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers

- a) Severe forms of chronic viral hepatitis E may be associated with scarring and architectural reorganization, which, when advanced, lead ultimately to cirrhosis
- b) PEG IFN and RBV and boceprevir or telaprevir are approved therapies for chronic VHC treatment
- c) In patients with HBV DNA levels $>2 \times 10^4$ IU/ml, treatment is recommended for those with ALT levels above 2 x the upper limit of normal
- d) In acute liver failure, excitability and mania may be present
- e) As is true for acute VHB, AST tends to be more elevated than ALT; however, once cirrhosis is established, ALT tends to exceed AST

32. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Fetor hepaticus refers to the slightly sweet, ammoniacal odor that can occur in patients with liver failure, particularly if there is portal-venous shunting of blood around the liver

- b) PCR assays are useful in following the course of HBV replication in patients with chronic hepatitis B receiving antiviral chemotherapy
- c) In immunocompetent persons with chronic hepatitis B, a general correlation does appear to exist between the level of HBV replication and the degree of liver injury.
- d) If IgG anti-HBc is present, the HBV infection is considered acute
- e) Complete clinical and biochemical recovery is to be expected 1-2 years after all cases of hepatitis A and E

33. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) The appearance of hepatic encephalopathy during acute hepatitis is the major criterion for diagnosis of fulminant hepatitis and indicates a poor prognosis.
- b) HCV RNA can be detected even before acute elevation of aminotransferase activity and before the appearance of anti-HCV in patients with acute hepatitis C
- c) A fever between 38° and 39°C (100°-102°F) is more often present in hepatitis B and C than in hepatitis A or E
- d) Extrahepatic complications of chronic hepatitis B are associated with deposition of circulating hepatitis B antigen-antibody immune complexes.
- e) During the prodromal phase of acute hepatitis A arthralgia may develop

34. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) In chronic liver disease, encephalopathy is usually triggered by a medical complication such as gastrointestinal bleeding, over-diuresis, uremia, dehydration, infection
- b) Serum ALT, AST are used as convenient and noninvasive means to follow disease activity, but aminotransferase levels are not always reliable in reflecting disease severity
- c) Hepatitis A virus replication is limited to the liver
- d) In simultaneous acute HBV and HDV infections, IgG anti-HBc will be detectable
- e) Chronic hepatitis E may follow acute co-infection with HBV but at a rate no higher than the rate of chronicity of acute hepatitis B.

35. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Infection with VHB in young adulthood in immunocompetent persons is typically associated with clinically apparent acute hepatitis but a risk of chronicity of >90%
- b) If IgM anti-HAV coexists with IgM anti-HBc (with or without HBsAg), the patient has simultaneous acute hepatitis A and B
- c) In typical cases of acute hepatitis C, recovery is rare, progression to chronic hepatitis is the rule
- d) Patients with cirrhosis are candidates for screening and surveillance for esophageal varices and hepatocellular carcinoma
- e) In VHB most infections occur approximately at the time of breast-feeding and are less related to delivery

36. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Chronic hepatitis D (HDV) may follow acute co-infection with HBV but at a rate no higher than the rate of chronicity of acute hepatitis B.
- b) During VHA convalescence, anti-HAV of the IgM class becomes the predominant antibody
- c) Magnetic resonance cholangiopancreatography (MRCP) and endoscopic retrograde cholangiopancreatography (ERCP) are the procedures of choice for assessing hepatic fibrosis
- d) Generally, incubation periods for hepatitis A range from 15-45 days (mean, 4 weeks)
- e) The distribution of HCV genotypes varies in different parts of the world. Worldwide, genotype 1 is the most common.

37. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Liver biopsy is usually needed in the diagnosis and management of acute liver disease

- b) The spectrum of clinical features of chronic hepatitis B is broad, ranging from asymptomatic infection to debilitating disease or even end-stage, fatal hepatic failure
- c) Generally, incubation periods for HCV range from 15-160 days, mean 50
- d) Doppler US and MRI are used to assess hepatic vasculature and hemodynamics
- e) The distribution of HCV genotypes varies in different parts of the world. Worldwide, genotype 3 and 4 is the most common

38. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Normal ALT levels in patients with HBsAg may indicate the inactive HBsAg carrier or may reflect mild chronic hepatitis B or hepatitis B with fluctuating disease activity
- b) Among patients with chronic hepatitis B, high levels of HBV DNA increase the risk of cirrhosis, hepatic decompensation, and hepatocellular carcinoma
- c) Spontaneous bacterial peritonitis is a common and severe complication of ascites characterized by spontaneous infection of the ascitic fluid without an intraabdominal source
- d) Elastography is the procedures of choice for visualization of the biliary tree
- e) In acute HDV infection superimposed on chronic HBV infection, anti-HBc will be of the IgM class

39. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Hepatitis E vaccines are approved for use in persons who are at least one year old and appear to provide adequate protection beginning 4 weeks after a primary inoculation
- b) Although interferons do not appear to cause congenital anomalies, interferons have antiproliferative properties and should not be used during pregnancy
- c) Liver biopsy is rarely necessary or indicated in acute viral hepatitis, except when the diagnosis is questionable
- d) In chronic hepatitis C, serum aminotransferase levels can be normal despite moderate activity of disease
- e) In VHD with the onset of clinical jaundice, the constitutional prodromal symptoms diminish

40. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Essential mixed cryoglobulinemia (EMC) develops occasionally in patients with viral hepatitis A
- b) HCV has been detected in stool, bile, and liver and is excreted in the stool during the late incubation period
- c) Acute fatty liver of pregnancy, cholestasis of pregnancy, eclampsia, HELLP syndrome can be confused with viral hepatitis during pregnancy
- d) The presence of HDV infection can be identified by demonstrating an anti-HDV seroconversion
- e) Clinical features, biochemical tests, and hepatic imaging studies are helpful in assessing stage but generally become abnormal only in the middle to late stages of cirrhosis

41. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) anti-HCV IgG can be detected in acute hepatitis C during the initial phase of elevated aminotransferase activity
- b) Hepatitis D superinfection can transform inactive or mild chronic hepatitis B into severe, progressive chronic hepatitis and cirrhosis
- c) The early antibody response in VHA is predominantly of the IgM class and persists for several months, rarely for 6-12 months
- d) Patients with cirrhosis warrant upper endoscopy to assess the presence of varices and should be given chronic therapy with
- e) In developed countries, exposure, infection, and subsequent immunity to HBV are almost universal in childhood

42. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Although HDV and HBV infections are associated with severe liver disease, mild hepatitis and even inactive carriage have been identified in some patients
- b) Viral hepatitis in the elderly is often misdiagnosed as obstructive jaundice
- c) Acute hepatitis can be staged clinically in the modified Child-Pugh classification
- d) Liver tests rarely suggest a specific diagnosis; rather, they suggest a general category of liver disease, such as hepatocellular or cholestatic, which then further directs the evaluation
- e) The unconjugated (indirect) bilirubin fraction is water soluble and can therefore be excreted by the kidney

43. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Hypoalbuminemia is more common in chronic liver disorders such as cirrhosis and usually reflects severe liver damage and decreased albumin synthesis
- b) Anti-HBc of the IgM class is the predominant class of anti-HBc beyond six months.
- c) Management of hepatitis E is directed at suppressing the level of virus replication
- d) Treatment goals of antiviral treatment in VHC is complete elimination of the virus, which is termed a sustained virological response (SVR)
- e) When fibrosis is so extensive that fibrous septa surround parenchymal nodules and alter the normal architecture of the liver lobule, the histologic lesion is defined as cirrhosis.

44. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Recent and remote HBV infections can be distinguished by determination of the immunoglobulin class of anti-HBc
- b) The likelihood of remaining chronically infected after acute HBV infection is high among neonates, Down's syndr., chronically hemodialyzed patients, immunosuppressed
- c) Acute viral hepatitis occurs after an incubation period that does not varies according to the responsible agent
- d) Because of its rapid turnover, measurement of the albumin is the single best acute measure of hepatic synthetic function
- e) Treatment goals of antiviral treatment in VHB are sustained suppression of HBV DNA, decrease necroinflammation, reduce risk of end stage liver disease and cancer

45. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) bilirubin shows a variable increase during the prodromal phase of acute viral hepatitis and precede the rise in AST and ALT level
- b) In hepatitis B, the degree of liver cell damage and the clinical course are not related to variations in the patient's immune response to HBV
- c) Infrequently, levels of HBsAg are too low to be detected during acute HBV infection, in such cases, the diagnosis can be established by the presence of IgM anti-HBc.
- d) In cirrhosis the development of portal hypertension is usually revealed by the presence of thrombocytopenia; enlarged spleen; ascites, encephalopathy, and/or esophageal varices
- e) Chronic viral hepatitis represents a series of liver disorders of varying causes and severity in which hepatic inflammation and necrosis continue for at least 6 months

46. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Pregnancy is not an absolute contraindication to treatment with pegylated interferon and ribavirin
- b) HBsAg has been identified in almost every body fluid from infected persons, and at least some of these body fluids-most notably semen and saliva-are infectious
- c) Circulating HBsAg remains detectable during the entire icteric or symptomatic phase of acute hepatitis B and beyond
- d) Fulminant hepatitis is hardly ever seen in hepatitis D
- e) All types of viral hepatitis produce clinically similar illnesses that range from asymptomatic and inapparent to fulminant and fatal acute infections

47. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) Hepatic hydrothorax is more common on the right side and implicates a rent in the diaphragm with free flow of ascitic fluid into the thoracic cavity.
- b) The presence of HBeAg during chronic hepatitis B is associated with ongoing viral replication, infectivity, and inflammatory liver injury
- c) Person-to-person spread of HCV is enhanced by poor personal hygiene and overcrowding
- d) Generally, in persons who have recovered from hepatitis B, HBsAg persist indefinitely.
- e) Because acute hepatitis may present with right upper quadrant abdominal pain, nausea, vomiting, fever, icterus, it is often confused with cholecystitis, or cholangitis.

48. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) During the recovery phase, constitutional symptoms in viral hepatitis disappear, but usually some liver enlargement and abnormalities in liver biochemical tests are still evident.
- b) Application of sensitive molecular probes for HCV RNA has revealed the presence of replicative HCV in peripheral blood lymphocytes of infected persons
- c) In chronic hepatitis C up to 90% of virologic responses are achieved within the first 12 weeks of therapy; responses thereafter are rare.
- d) Serum albumin is synthesized exclusively by Kupffer cells.
- e) In patients recovering from jaundice, the serum bilirubin clears prior to the urine bilirubin.

49. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) In the replicative phase of VHB the liver injury tends to subside
- b) Tenofovir and tenofovir+emtricitabine in one pill are approved therapies for HIV and represent excellent choices for treating HBV infection in HBV-HIV co-infected patients.
- c) In patients with HBs antigenemia of unknown duration, testing for IgM anti-HBc may be useful to distinguish between acute infection and chronic HBV infection
- d) Immune complex-mediated extrahepatic complications of chronic hepatitis C are less common than in chronic hepatitis B Immune complex
- e) In typical cases, HBsAg becomes undetectable 1-2 years after the onset of jaundice

50. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) HBsAg carrier mothers who are HBeAg-positive almost invariably (>90%) transmit hepatitis B infection to their offspring
- b) In most liver diseases, unconjugated fractions of the bilirubin tend to be elevated
- c) Most cases of hepatitis C are identified initially in asymptomatic patients who have no history of acute hepatitis C
- d) Serum alkaline phosphatase may be normal or only mildly elevated, while a fall in serum albumin is uncommon in uncomplicated acute viral hepatitis
- e) The diagnosis of hepatitis A is made during acute illness by demonstrating of serum HAV-Ag

51. Capitol: hepatite virale **Mod de punctare:** A3Indicate the correct answers:

- a) In cirrhosis, the increased serum gamma globulin concentration is due to the increased synthesis of antibodies, some of which are directed against intestinal bacteria
- b) A gap of several weeks or longer may separate the disappearance of HBsAg and the appearance of anti-HBs
- c) Occasionally in patients with chronic HCV infection, HCV RNA may be detectable only intermittently
- d) Because HBV relies absolutely on HDV, the duration of HBV infection is determined by the duration of (and cannot outlast) HDV infection
- e) The prothrombin time may be decreased in hepatitis and cirrhosis as well as in disorders that lead to vitamin K deficiency

52. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) HBV does not integrate into the host genome
- b) Circulating HBsAg precedes elevations of serum aminotransferase activity and clinical symptoms by 2-6 days
- c) Another clinical constellation that may mimic acute hepatitis is right ventricular failure with passive hepatic congestion or hypoperfusion syndromes
- d) When HBV inf. occurs early in life, immunologic clearance does not occur, and lifelong infection ensues (HBeAg traverse the placenta, induces T cell tolerance)
- e) In the small minority of patients with hepatitis C who lack anti-HCV, a diagnosis can be supported by detection of HCV RNA

53. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Tests for saliva or breast milk HBV are routinely available
- b) Hepatitis B antigens and HBV DNA have been identified in extrahepatic sites, including lymph nodes, bone marrow, circulating lymphocytes, spleen, and pancreas
- c) Now, none of the nucleoside analogue antiviral agents for hepatitis B is effective in hepatitis D
- d) When acute HDV and HBV infection occur simultaneously, clinical and biochemical features may be indistinguishable from those of HBV infection alone
- e) The serum albumin is a good indicator of acute or mild hepatic dysfunction

54. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Ultrasound with Doppler imaging can detect the patency of the portal vein, hepatic artery, and hepatic veins and determine the direction of blood flow
- b) Except for severity, chronic hepatitis B plus D has similar clinical and laboratory features to those seen in chronic hepatitis B alone
- c) Gamma globulins are normal in chronic liver disease, such as chronic hepatitis and cirrhosis
- d) Generally, in persons who have recovered from hepatitis B, anti-HBc IgM persist indefinitely.
- e) HBeAg-negative chronic hepatitis with mutations in the precore region is now the most frequently encountered form of hepatitis B in Mediterranean countries and in Europe

55. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) Neutralizing antibodies to HCV tend to be long lived, and HCV infection does induce life long lasting immunity against reinfection with different virus isolates
- b) Reactivations can occur in therapeutically immunosuppressed patients with chronic HBV infection when cytotoxic/immunosuppressive drugs are withdrawn;
- c) Neutralizing antibodies to HCV tend to be long lived, and HCV infection does induce life long lasting immunity against reinfection with different virus isolates
- d) Constitutional symptoms in viral hepatitis B may precede the onset of jaundice by 1-4 weeks
- e) The designations replicative and nonreplicative are only relative; even in the so-called nonreplicative phase, HBV replication can be detected at low levels with sensitive PCR

56. Capitol: hepatitis virale **Mod de punctare:** A3Indicate the correct answers:

- a) The liver plays a role in the detoxification of ammonia by converting it to urea, which is excreted by the kidneys.
- b) The serum half-lives are much shorter than albumin, ranging from 6 h for factor VII to 5 days for fibrinogen
- c) Among the seven available drugs for hepatitis B, PEG IFN has supplanted standard IFN, entecavir has supplanted lamivudine, and tenofovir has supplanted adefovir.
- d) Gamma globulins are increased in chronic liver disease, such as chronic hepatitis and cirrhosis
- e) HBsAg appearance coincides temporally with high levels of virus replication and reflects the presence of circulating intact virions and detectable HBV DNA

57. Capitol: hepatitis virale **Mod de punctare:** A3 Indicate the correct answers:

- a) Anti-HBc is the protective antibody
- b) In the nonreplicative phase of chronic infection, when HBV DNA is demonstrable in hepatocyte nuclei, it tends to be integrated into the host genome
- c) Unconjugated hyperbilirubinemia almost always implies liver or biliary tract disease
- d) When HBV infection is acquired during adolescence or early adulthood an acute hepatitis-like illness is the rule, and failure to recover is the exception
- e) Striking elevations-i.e., ALT >1000 U/L-occur in disorders associated with extensive hepatocellular injury such as viral hepatitis, ischemic liver injury, or toxin- or drug-induced liver injury.

58. Capitol: hepatitis virale **Mod de punctare:** A3 Indicate the correct answers:

- a) Naked core particles circulate in serum and, therefore, HBcAg is detectable routinely in the serum of patients with HBV infection
- b) Although HDV co-infection can increase the severity of acute hepatitis B, HDV does not increase the likelihood of progression to chronic hepatitis B
- c) As cirrhosis develops the AST:ALT ratio decreased to less than 1.
- d) Glucocorticoids are ineffective and are not used in chronic viral hepatitis D
- e) Anti-HBc of the IgM class (IgM anti-HBc) predominates during the first six months after acute infection

59. Capitol: hepatitis virale **Mod de punctare:** A3 Indicate the correct answers:

- a) The likelihood major complications of cirrhosis are bleeding from varices and spontaneous bacterial peritonitis
- b) Serum albumin has a long half-life: 18-20 days, with 4% degraded per day
- c) Both IgM anti-HEV and IgG anti-HEV can be detected, but both fall rapidly after acute infection, reaching low levels within 9-12 months
- d) The introduction of hepatitis E vaccination programs among children resulted in reduction in the annual incidence of new HEV infections
- e) In the replicative phase the liver injury tends to subside

60. Capitol: hepatitis virale **Mod de punctare:** A3 Indicate the correct answers:

- a) The chances of sexual and perinatal transmission of HBV have been estimated to be 5%, well below comparable rates for HCV infections
- b) An epidemiologic feature that distinguishes HAV from other enteric agents is the rarity of secondary person-to-person spread from infected persons to their close contacts
- c) Generally, in persons who have recovered from hepatitis B, anti-HBs and anti-HBc persist indefinitely.
- d) Because of their rapid turnover, measurement of the clotting factors is the single best acute measure of hepatic synthetic function
- e) After HBsAg disappears, antibody to HBsAg (anti-HBs) becomes detectable in serum and remains detectable indefinitely thereafter

61. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) During VHA convalescence, anti-HAV of the IgM class becomes the predominant antibody
- b) Hepatitis A virus is present in the liver, bile, stools, and blood only during the late icteric phase of illness
- c) The AST:ALT ratio is typically higher than 1 in patients with chronic viral hepatitis and non-alcoholic fatty liver disease
- d) The Child-Pugh is a prospectively derived scoring system designed to predict prognosis of patients with hepatitis.

e) Anti-HBs is the protective antibody

62. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

a) If IgM anti-HCV coexists with HBsAg and IgM anti-HBc is undetectable, the patient has acute hepatitis C superimposed on chronic HBV infection

b) Persons with anti-HBc in serum are protected against reinfection with HBV

c) Generally, incubation periods for HAV range from 30-180 days, mean 60-90

d) Persons with chronic hepatitis E have an enhanced risk of hepatocellular carcinoma

e) Drugs that have been approved for treatment of chronic VHD are: lamivudine, adefovir dipivoxil, entecavir, telbivudine, tenofovir.

63. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

a) The serum albumin is a good indicator of acute or mild hepatic dysfunction

b) The kidneys play a role in the detoxification of ammonia by converting it to urea, which is excreted by the liver

c) Serum prothrombin time is helpful in both the diagnosis and assessing the prognosis of acute parenchymal liver disease

d) Serum containing anti-HBs is more likely to be highly infectious and to be associated with the presence of hepatitis B virions

e) Always, nonreplicative HBV infection converts back to replicative infection

64. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

a) Conjugated bilirubin (direct fraction) always binds to albumin in the serum, is insoluble in water, is not filtered by the kidney

b) Persistence of HBeAg in serum during the first three months of acute infection may be predictive of the development of chronic infection

c) In self-limited HBV infections, HBsAg becomes undetectable shortly after peak elevations in aminotransferase activity, before the disappearance of HBeAg

d) Patients with precore mutations cannot synthesize HBeAg

e) In the replicative phase the liver injury tends to subside

65. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

a) There are no differences among genotypes of HCV in responsiveness to antiviral bi-therapy

b) The delta hepatitis agent is a defective DNA virus that coinfects with and requires the helper function of HBV for its replication and expression

c) After a person is infected with HBV, the first virologic marker detectable in serum is HBeAg

d) HBeAg appearance coincides temporally with high levels of virus replication and reflects the presence of circulating intact virions and detectable HBV DNA

e) The unconjugated (indirect) bilirubin fraction is water soluble and can therefore be excreted by the kidney

66. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

a) HCV does integrate into the host genome

b) Infrequently, in 1-5% of patients with acute HBV infection, levels of HBsAg are too low to be detected

c) HBV can either infect a person simultaneously with HDV (co-infection) or superinfect a person already infected with HDV (super-infection);

d) In typical cases, HBsAg becomes undetectable 6-8 months after the onset of jaundice

e) An isolated elevation of conjugated bilirubin is seen primarily in hemolytic disorders and in a number of genetic conditions such as Crigler-Najjar and Gilbert's syndromes

67. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Patients with current or recent acute hepatitis B, including those in the anti-HBs window, have IgM anti-HBc in their serum
- b) The bilirubin are sensitive indicators of liver cell injury and are most helpful in recognizing acute hepatocellular diseases such as hepatitis
- c) HBcAg is detectable routinely in the serum of patients with HBV infection
- d) HDV antigen is expressed primarily in hepatocyte nuclei and during acute HDV infection, anti-HDV of the IgG class predominates
- e) HCV DNA can be detected within a few days of exposure to HCV-well before the appearance of anti-HCV

68. Capitol: hepatitis virale **Mod de punctare:** A1Indicate the correct answer:

- a) After adulthood acquired HBV infection, chronicity common
- b) HDV has been detected in stool, bile, and liver and is excreted in the stool during the late incubation period
- c) In hepatitis or cirrhosis conjugation is better preserved than other aspects of bilirubin disposition, such as canalicular excretion.
- d) HEV is an parenterically transmitted virus that occurs primarily in India, Asia, Africa, and Central America
- e) AST is found primarily in the liver and is therefore a more specific indicator of liver injury.

69. Capitol: hepatitis virale **Mod de punctare:** A1Indicate the correct answer:

- a) Because HBcAg is intracellular and, when in the serum, sequestered within an HBsAg coat, naked core particles often circulate in serum
- b) With the exception of factor VIII, which is produced by vascular endothelial cells, the blood clotting factors are made exclusively in hepatocytes
- c) Individuals who are infected with VHB as neonates have a relatively low level of immunologic tolerance during the early decades of life and a relatively higher level in the later.
- d) Immune-complex glomerulonephritis is a recognized extrahepatic manifestation of hepatitis E.
- e) Generally, incubation periods for HDV range from 14-60 days, mean 40

70. Capitol: hepatitis virale **Mod de punctare:** A1Indicate the correct answer:

- a) The prothrombin time may be elevated in hepatitis and cirrhosis as well as in disorders that lead to vitamin A deficiency
- b) HDV is transmitted almost exclusively by the fecal-oral route.
- c) In developing countries, exposure, infection, and subsequent immunity to HAV are almost universal in adulthood
- d) Perinatal transmission occurs primarily in infants born to anti-HBs-positive mothers during the third trimester of pregnancy or during the early postpartum period
- e) During the "gap" or "window" period, anti-HBc may represent the only serologic evidence of current or recent HBV infection

71. Capitol: hepatitis virale **Mod de punctare:** A1Indicate the correct answer:

- a) Unconjugated bilirubin is not excreted in urine, as it is too tightly bound to albumin for effective glomerular filtration and there is no tubular mechanism for its renal secretion
- b) The chances of sexual and perinatal transmission of HCV have been estimated to be 5%, well higher comparable rates for HIV and HBV infections
- c) The introduction of hepatitis E vaccination programs among children resulted in reduction in the annual incidence of new HEV infections
- d) No HDV carrier state has been identified after acute hepatitis D
- e) Person-to-person spread of HBV is enhanced by poor personal hygiene and overcrowding

72. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) The commonly recognized cases of VHD occur after contamination of water supplies, but sporadic, isolated cases occur
- b) Dark urine and clay-colored stools may be noticed by the patient from 1-5 days after the onset of clinical jaundice.
- c) In VHA with the onset of clinical jaundice, the constitutional prodromal symptoms do not diminish
- d) Circulating HBsAg precedes elevations of serum aminotransferase activity and clinical symptoms by 2-6 weeks
- e) Complete clinical and biochemical recovery is to be expected 1-2 months after all cases of hepatitis C

73. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) In patients who have recovered from hepatitis B in the remote past as well as those with chronic HBV infection, anti-HBc is predominantly of the IgM class
- b) HBeAg, appears concurrently with or shortly after HBsAg
- c) More commonly, acute HDV infection becomes chronic when it is superimposed on an underlying chronic HAV infection
- d) In viral hepatitis the serum bilirubin never continue to rise when the serum aminotransferase levels fall
- e) A diagnosis of HBV infection can usually be made by detection of anti-HBs in serum

74. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) In chronic HBV infection, HBsAg remains detectable beyond six months, anti-HBc is primarily of the IgG class
- b) An epidemiologic feature that distinguishes HAV from other enteric agents is the rarity of secondary person-to-person spread from infected persons to their close contacts
- c) The HBV superinfection appears as a clinical exacerbation or an episode resembling acute viral hepatitis in someone already chronically infected with HDV
- d) Tests for fecal or serum HAV are routinely available.
- e) Assays for HDV RNA are the most sensitive tests for HDV infection and represent the "gold standard" in establishing a diagnosis of hepatitis D

75. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) No HBV carrier state has been identified after acute hepatitis B
- b) In VHD with the onset of clinical jaundice, the constitutional prodromal symptoms diminish
- c) Complete clinical and biochemical recovery is to be expected 1-2 months after all cases of hepatitis D
- d) IgM anti-HBc can reappear during acute exacerbations of chronic hepatitis B, in such cases, patient history is invaluable in helping to distinguish from de novo acute VHB
- e) More commonly, acute HAV infection becomes chronic when it is superimposed on an underlying chronic HCV infection

76. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) The introduction of hepatitis D vaccination programs among children resulted in reduction in the annual incidence of new HDV infections
- b) Complete clinical and biochemical recovery is to be expected 3-4 months after the onset of jaundice in three-quarters of uncomplicated, self-limited cases of hepatitis A
- c) Assays for HAV RNA are the most sensitive tests for HAV infection and represent the "gold standard" in establishing a diagnosis of hepatitis A
- d) Patients with mutation in the core-promoter region are unable to secrete HBeAg and have chronic HBV infection and detectable HBV DNA but with anti-HBe instead of HBeAg

e) Determination of HCV RNA genotype is a reliable marker of disease severity or prognosis

77. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) A prolonged PT, low-serum albumin level, hypoglycemia, and very high-serum bilirubin values suggest non-severe hepatocellular disease

b) All previously healthy patients with hepatitis C recover completely with no clinical sequelae

c) If IgG anti-HBc is absent, the HBV infection is considered chronic

d) In simultaneous acute HBV and HDV infections, IgG anti-HBc will be detectable

e) HDV antigen in the liver and HDV RNA in serum and liver can be detected during HDV replication

78. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) Hepatitis D is less severe during the acute phase than hepatitis C and is more likely to be anicteric

b) During the prodromal phase of acute hepatitis A arthralgia may develop

c) Neutralizing antibodies to HCV tend to be short lived, and HCV infection does not induce lasting immunity against reinfection with different virus isolates or even the same virus isolate

d) In VHC with the onset of clinical jaundice, the constitutional prodromal symptoms diminish

e) All previously healthy patients with hepatitis D recover completely with no clinical sequelae

79. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) Contributing to the perpetuation of HEV are animal reservoirs, most notably in swine

b) The introduction of hepatitis C vaccination programs among children resulted in reduction in the annual incidence of new HCV infections

c) Complete clinical and biochemical recovery is to be expected 3-4 months after the onset of jaundice in three-quarters of uncomplicated, self-limited cases of hepatitis E

d) In hepatitis E hepatic steatosis and insulin resistance appear to accelerate hepatic fibrosis and blunt responsiveness to antiviral therapy

e) Fulminant viral hepatitis B a frequent event

80. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) More commonly, acute HEV infection becomes chronic when it is superimposed on an underlying chronic HBV infection

b) Lack of complete resolution of clinical symptoms of anorexia, fatigue, persistence of hepatomegaly never suggest progression of acute hepatitis to chronic hepatitis

c) Hepatitis D does not have the potential for contributing to the severity of chronic hepatitis B

d) All HDV superinfections in patients with chronic hepatitis B lead to fulminant hepatitis

e) Glomerulonephritis with the nephrotic syndrome is observed occasionally in patients with chronic hepatitis B

81. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) Hepatitis A vaccines are approved for use in newborns and appear to provide adequate protection beginning 4 weeks after a primary inoculation

b) Failure of the serum ALT, bilirubin, and globulin levels to return to normal within 6-12 months after the acute illness do not suggest progression of acute hepatitis to chronic hepatitis

c) Essential mixed cryoglobulinemia (EMC) develops occasionally in patients with chronic hepatitis B

d) Patients in the nonreplicative phase of VHB tend to have more severe chronic hepatitis

e) The likelihood of chronicity after acute hepatitis B does not varies as a function of age

82. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

a) Patients in the replicative phase of VHB tend to have minimal or mild chronic hepatitis or to be inactive hepatitis B carriers

- b) Most cases of chronic hepatitis B among adults occur in patients who recognized an episode of clinically apparent acute viral hepatitis
- c) The presence of bridging/interface or multilobular hepatic necrosis on liver biopsy during protracted, severe acute viral hepatitis do not suggest progression of acute hepatitis to chronic hepatitis
- d) Intrafamily and intrainstitutional spread are also common for VHA
- e) Fulminant viral hepatitis C a frequent event

83. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) In most cases, acute VHB infection in the neonate is clinically asymptomatic, but the child is very likely to remain chronically infected.
- b) The induction of fibrosis occurs with activation of hepatocytes, resulting in the formation of increased amounts of collagen and other components of the extracellular matrix
- c) Clinical features of chronic hepatitis C are different to those described for chronic hepatitis B
- d) During the prodromal phase of acute hepatitis E arthralgia may develop
- e) Complications of cirrhosis occur in early-stage chronic hepatitis and include ascites, bleeding gastroesophageal varices, encephalopathy, coagulopathy, hypersplenism.

84. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) Loss of hepatic stellate cells results in jaundice, coagulation disorders, and hypoalbuminemia and contributes to the causes of portosystemic encephalopathy.
- b) Fulminant viral hepatitis D a frequent event
- c) The prodromal symptoms of acute viral hepatitis are systemic and quite variable
- d) The complications of cirrhosis are different and depends on the etiology
- e) The hepatorenal syndrome (HRS) is a form of functional renal failure without renal pathology that occurs in about 90% of patients with advanced cirrhosis or acute liver failure

85. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) Clinical features of chronic hepatitis D are different to those described for chronic hepatitis C
- b) Infection with VHB in young adulthood in immunocompetent persons is typically associated with clinically apparent acute hepatitis and a risk of chronicity of >50%
- c) Fulminant viral hepatitis A a frequent event
- d) In hepatitis A hepatic steatosis and insulin resistance appear to accelerate hepatic fibrosis and blunt responsiveness to antiviral therapy
- e) A substantial proportion of patients with viral hepatitis never become icteric.

86. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) Nonsevere forms of chronic viral hepatitis always are associated with scarring and architectural reorganization, which, when advanced, lead ultimately to cirrhosis
- b) Patients with chronic HBV infection can support HDV replication indefinitely
- c) Cirrhosis is irreversible; and when the underlying insult that has caused the cirrhosis are removed, there cannot be reversal of fibrosis
- d) All HCV superinfections in patients with chronic hepatitis B lead to fulminant hepatitis
- e) Malignancies metastatic to the liver never mimic acute or even fulminant viral hepatitis

87. Capitol: hepatite virale **Mod de punctare:** A1Indicate the correct answer:

- a) In patients with chronic hepatitis B there are no beneficial effects of antiviral therapy
- b) Of patients exposed to the hepatitis B virus, approximately 80% develop chronic hepatitis B, and of those, about 20-30% will develop cirrhosis over 20-30 years
- c) *Portal hypertension* is a significant complicating feature of fulminant viral hepatitis
- d) Lack of complete resolution of clinical symptoms of anorexia, fatigue, persistence of hepatomegaly suggest progression of acute hepatitis A to chronic hepatitis A
- e) The autoantibodies in viral hepatitis are nonspecific and can also be associated with other viral

and systemic diseases

88. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Interferon and pegylated interferon can also be used for treating hepatitis B, and it should be always used in cirrhotics.
- b) The stage of chronic viral hepatitis, which reflects the level of progression of the disease, is based on the degree of hepatic fibrosis
- c) Laboratory tests are completely normal in patients with advanced liver disease
- d) Hypoalbuminemia and prolongation of the prothrombin time occur in nonsevere or early-stage cases of chronic hepatitis
- e) Infection at birth with VHE is associated with clinically silent acute infection but a 90% chance of chronic infection

89. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Patients with tense ascites are not at increased risk for bleeding from varices.
- b) The side effects of pegylated interferon and ribavirin therapy are easy to manage
- c) The most useful available PCR assays are those with the highest sensitivity (5-10 IU/mL) and the largest dynamic range (10^0 - 10^9 IU/mL).
- d) Patients may be anemic in acute viral hepatitis from hypersplenism related to portal hypertension
- e) In acute HDV infection superimposed on chronic HBV infection, anti-HBc will be of the IgM class

90. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) HCV RNA remains detectable indefinitely, continuously in most but intermittently in some, in patients with chronic hepatitis C
- b) Failure of the serum ALT, bilirubin, globulin levels to return to normal within 6-12 months after the acute illness suggest progression of acute hepatitis E to chronic hepatitis
- c) The presence of portal hypertension do not contributes to the development of ascites in patients who have cirrhosis
- d) Patients with cirrhosis treated with beta blockers have a higher risk of variceal hemorrhage than those treated with placebo over 1 and 2 years of follow-up
- e) In outbreaks of hepatitis A the case fatality rate is 1-2% and up to 10-20% in pregnant women

91. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) All HDV superinfections in patients with chronic hepatitis C lead to fulminant hepatitis
- b) Congestive splenomegaly is uncommon in patients with portal hypertension
- c) When the gradient between the serum albumin level and the ascitic fluid albumin level is <1.1 g/dL, the cause of the ascites is most likely due to portal hypertension (in the setting of cirrhosis)
- d) Determination of HCV RNA genotype is not a reliable marker of disease severity or prognosis but is helpful in predicting relative responsiveness to antiviral therapy.
- e) In acute liver injury with fulminant hepatic failure, the development of ascites is a requirement for a diagnosis of fulminant failure.

92. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) In acute liver failure patients may actually be quite violent and difficult to manage; alternatively, patients may be very sleepy and difficult to rouse.
- b) Determination of the class of anti-HBc is helpless in establishing the relationship between infection with HBV and HDV
- c) In patients with acute viral hepatitis, encephalopathy is often found as a result of events such as hypokalemia, infection, an increased dietary protein load, or electrolyte disturbances
- d) The goal of lactulose therapy is to promote constipation.
- e) There is increased synthesis of clotting factors and impaired clearance of anticoagulants in patients with cirrhosis

93. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Vitamin K does not require biliary excretion for its subsequent absorption; thus, in patients with chronic cholestatic syndromes, vitamin K absorption cannot be diminished
- b) Although progression to cirrhosis is more likely in severe than in mild or moderate chronic hepatitis B, all forms of chronic hepatitis B can be progressive
- c) Poorly absorbed antibiotics are often used as adjunctive therapies for patients with mild acute viral hepatitis
- d) If IgG anti-HAV coexists with anti-HBs, a diagnosis of simultaneous HAV and HBV infections can be made
- e) Infection at birth with VHB is associated with clinically silent acute infection and a 10% chance of chronic infection

94. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Acute hepatitis D infection increases the likelihood of chronicity of simultaneous acute hepatitis B
- b) Platelet function is often abnormal in patients with acute liver disease, in addition to decreases in platelet levels due to hypersplenism.
- c) There may be some benefit to replacing vegetable-based protein with animal-based protein in some patients with encephalopathy that is difficult to manage
- d) If a serologic diagnosis of chronic hepatitis B is made, testing for HBeAg and anti-HBe is indicated to evaluate relative infectivity
- e) Strategies for prevention of HBV infection are based on providing susceptible persons with circulating anti-HBc

95. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Vertical spread of hepatitis B cannot be prevented by active immunization of the infant at birth
- b) Circulating HBsAg remains detectable only during the preicteric phase of acute hepatitis B
- c) Vertical spread of hepatitis B cannot be prevented by active immunization of the infant at birth
- d) In cirrhosis the renal effects of increased aldosterone leading to sodium retention cannot contribute to the development of ascites
- e) In persons with hepatitis B, testing for anti-HDV is useful

96. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Measurement of the prothrombin time (PT) is not important in patients with acute viral hepatitis, for a prolonged value does not signify extensive hepatocellular necrosis
- b) Numerous hematologic manifestations of acute hepatitis are present, including anemia from hypersplenism, hemolysis, iron deficiency, and perhaps folate deficiency from malnutrition
- c) Fulminant hepatitis is often seen in hepatitis C
- d) In hepatitis C hepatic steatosis and insulin resistance does not appear to accelerate hepatic fibrosis and blunt responsiveness to antiviral therapy
- e) Complications of IFN, PEG IFN therapy include "flu-like" symptoms; marrow suppression; emotional lability; autoimmune reactions (especially autoimmune thyroiditis)

97. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Patients with moderate amounts of ascites can usually be managed with dietary sodium restriction alone.
- b) Infection in the adult period is associated with the acquisition of immunologic tolerance to HBV, and establishment of chronic, often lifelong infection.
- c) The mainstay of treatment for encephalopathy, in addition to correcting precipitating factors, is to use lactulose, a nonabsorbable disaccharide, which results in colonic acidification.
- d) The diagnosis of hepatic encephalopathy requires a CT or MRI to be recognized.
- e) The persistence of HBeAg for >3 months or HBsAg for >6 months after acute hepatitis do not suggest progression of acute hepatitis to chronic hepatitis

98. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) In VHD with the onset of clinical jaundice, the constitutional prodromal symptoms usually

diminish

- b) Infection with HDV cannot occur in the presence of acute or chronic HBV infection
- c) Hepatitis E is uncommon causes of jaundice in Asia and Africa but is common in developed nations
- d) Entecavir has low-level activity against HIV and can result in selection of HIV resistance; therefore, it should be avoided in HBV-HIV co-infection.
- e) In fulminant hepatitis patients usually present with signs and symptoms of encephalopathy that never evolve to deep coma

99. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) In fulminant hepatitis the liver is usually large and the PT not prolonged
- b) Respiratory function cannot be compromised if ascitic fluid is massive
- c) Congestive splenomegaly include the presence of an enlarged spleen and the development of thrombocytosis and leukocytosis in patients who have cirrhosis
- d) The most sensitive indicator of HCV infection is the presence of anti-HCV
- e) A complete drug history is particularly important, for many drugs and certain anesthetic agents can produce a picture of either acute hepatitis or cholestasis

100. Capitol: hepatitis virale **Mod de punctare:** A1 Indicate the correct answer:

- a) Hypoalbuminemia is due to increased synthetic function in a cirrhotic liver.
- b) Vertical spread of hepatitis C is common, but there are no reliable means of prevention
- c) Reduction of HBV replication with antiviral drugs does not tends to be accompanied by an improvement in liver histology
- d) The most sensitive indicator of HBV infection is the presence of anti-HBs
- e) The combination of rapidly shrinking liver size, rising bilirubin, marked prolongation of the PT, confusion, and somnolence indicates hepatic failure with encephalopathy

101. Capitol: HIV **Mod de punctare:** A3 Indicate the correct answers:

- a) Retroviruses contain an RNA-dependent DNA polymerase (a reverse transcriptase) that directs the synthesis of a DNA form of the viral genome after infection of a host cell
- b) Most patients with Cryptococcal meningitis in AIDS present with a picture of subacute meningoencephalitis with fever, nausea, vomiting, altered mental status, headache, meningeal signs.
- c) The acute burst of viremia and wide dissemination of virus in primary HIV infection may be associated with an acute HIV syndrome
- d) Pulmonary disease is the rarest complications of HIV infection.
- e) HIV encephalopathy is generally an early complication of HIV infection that progresses rapidly over days

102. Capitol: HIV **Mod de punctare:** A3 Indicate the correct answers:

- a) HIV replicates most efficiently in resting CD4+ T cells
- b) The most common cause of HIV disease throughout the world is HIV-1
- c) Any HIV-infected individual with a CD4+ T cell count of <200/L has AIDS by definition, regardless of the presence of symptoms or opportunistic diseases
- d) In HIV inf. the decision regarding choice of drugs not only will affect the immediate response to therapy but also will have implications regarding options for future therapeutic regimens
- e) Today, the rate of mother-to-child transmission is 50% in pregnant women who are receiving combination antiretroviral therapy for their HIV infection

103. Capitol: HIV **Mod de punctare:** A3 Indicate the correct answers:

- a) In HIV-associated PCP the most common finding on chest x-ray is a faint unilateral interstitial perihilar infiltrate.

- b) Pregnant women cannot receive optimal antiretroviral therapy because of pregnancy status
- c) Acute HIV syndrome occurs to varying degrees in 50-70% of individuals with primary infection
- d) In HIV infection during the period of clinical latency varying levels of virus replication inevitably occur
- e) During the course of HIV infection, neutropenia may be seen in half of patients, it is mild; however, it can be severe and can put patients at risk of spontaneous bacterial infections

104. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) In acute HIV syndrome the symptoms usually persist for more than 6 month and gradually subside as an immune response to HIV develops and the levels of plasma viremia decrease
- b) Given that patients can be infected with viruses that harbor drug resistance mutations, it is recommended that a viral resistance be done prior to the initiation of therapy
- c) Lymphadenopathy is not characteristic for individuals with primary HIV infection
- d) In acute HIV syndrome is typical the manifestation of an acute infectious mononucleosis like syndrome
- e) In HIV infection once individuals have had a clinical condition in category C, their disease classification cannot be reverted back to category B, even if the condition resolves

105. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Clinicians should consider potential occupational exposures to HIV as urgent medical concerns to ensure timely postexposure management and possible administration of PEP
- b) HIV is transmitted primarily by sexual contact; by blood and blood products; and by infected mothers to infants intrapartum, perinatally, or via breast milk
- c) The standard blood screening test for latent HIV infection is the PCR
- d) Antibodies to HIV generally appear in the circulation 6-12 months following infection
- e) The definition of AIDS is indeed complex and comprehensive and was established not for the practical care of patients, but for surveillance purposes

106. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Maximal suppression of viral replication is a goal of therapy; the greater the suppression the less likely the appearance of drug-resistant quasiespecies.
- b) Cryptosporidial inf. may present from a self-limited or intermittent diarrheal illness in patients in the early stages of HIV inf. to a severe, life-threatening diarrhea in AIDS.
- c) The clinician should view HIV disease as a spectrum ranging from primary infection, with or without the acute syndrome, to the asymptomatic stage, to advanced stages associated with opportunistic diseases
- d) The standard blood screening test for acute HIV infection is the ELISA
- e) In HIV infection the length of time from initial infection to the development of clinical disease varies greatly, the median time for untreated patients is 1 year

107. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) In HIV infection the rate of disease progression do not correlate with HIV RNA levels
- b) Plasma HIV RNA levels and CD4+ T lymphocyte counts should be monitored every 3-6 months during therapy and more frequently if is contemplating or following a change in regimen.
- c) Most diagnostic laboratories use a commercial ELISA kit that contains antigens only from HIV-1
- d) Symptoms of HIV disease can appear at any time during the course of HIV infection
- e) HIV is the etiologic agent of AIDS; it belongs to the family of human retroviruses (Retroviridae) and the subfamily of lentiviruses

108. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Toxoplasmosis is one of the rarest causes of secondary CNS infections in patients with AIDS

- b) Generalized wasting is rarely seen today with the earlier initiation of antiretrovirals
 - c) Cryptosporidia, microsporidia, and Isospora belli are the most common opportunistic protozoa that infect the GI tract and cause diarrhea in HIV-infected patients
 - d) HIV-1 comprises several subtypes with different geographic distributions
 - e) In HIV infection long-term nonprogressors patients generally have high levels of HIV RNA
- 109. Capitol: HIV Mod de punctare: A3** Indicate the correct answers:

- a) A major feature of HIV encephalopathy is a decline in cognitive ability from a previous level, motor and behavioral abnormalities
- b) A diagnosis of AIDS is made in anyone with HIV infection and CD4+ T 200-350/L
- c) In HIV infection long-term nonprogressors show high decline in CD4+ T cell counts over extended periods of time
- d) Fungal infections of the lung (Cryptococcosis, Coccidioides immitis, Aspergillus, Histoplasmosis) in addition to PCP, can be seen in patients with AIDS.
- e) HIV-2 was first identified in 1986 in West African patients and was originally confined to West Africa.

110. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) The currently defined groups of HIV-1 (M, N, O, P) and the HIV-2 groups A through G each are likely derived from a separate transfer to humans from a nonhuman primate reservoir
- b) Adequate suppression of HIV requires strict adherence to prescribed regimens of antiretroviral drugs.
- c) The neurologic problems that occur in HIV-infected individuals may be either primary to the pathogenic processes of HIV infection or secondary to opportunistic infections or neoplasms
- d) Patients with PCP generally present with high grade fever and a productive cough
- e) Untreated TB cannot accelerate the course of HIV infection.

111. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) In contrast to infection with atypical mycobacteria such as MAC, active TB often develops
- b) It is recommended that HIV inf. patients with prior toxoplasmic encephalitis receive maintenance therapy with sulfadiazine, pyrimethamine, leucovorin as long as CD4+ T cell <200 cells/L.
- c) Persistent generalized lymphadenopathy in HIV inf. may be seen at any point in the spectrum of immune dysfunction and is not associated with an increased likelihood of developing AIDS
- d) Lymphoid interstitial pneumonitis (LIP), a common finding in HIV-infected children, is seen in about 1% of adult patients with untreated HIV infection
- e) The standard treatment for PCP or disseminated pneumocystosis is cephalosporin IV generation.

112. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) Atypical mycobacterial infections are seen with an increased frequency in patients with latent HIV infection
- b) Seizures in AIDS are seen in cerebral toxoplasmosis, primary CNS lymphoma, cryptococcal meningitis, and also in HIV encephalopathy, CNS tuberculosis, progressive multifocal leukoencephalopathy
- c) In HIV infected patients with high CD4+ T cell counts, disseminated tuberculosis is more common.
- d) Opportunistic organisms such as P. jiroveci, atypical mycobacteria, CMV do not ordinarily cause a disease in the absence of a compromised immune system
- e) The HIV virion contain numerous external spikes formed by the two major envelope proteins, the external gp120 and the transmembrane gp41

113. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) The most common clinical presentation of cerebral toxoplasmosis in patients with HIV infection is fever, headache, and focal neurologic deficits
- b) The AIDS pandemic is primarily caused by the HIV-2 M group viruses
- c) Both HSV and varicella zoster virus can cause a rapidly progressing, bilateral necrotizing retinitis, that, in contrast to CMV retinitis, is associated with pain, keratitis, and iritis.
- d) Oral hairy leukoplakia lesions are associated with florid replication of CMV
- e) The HIV virion buds from the surface of the infected cell and incorporates a variety of host proteins, including major histocompatibility complex (MHC) class I and II antigens into its lipid bilayer

114. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) HIV is an RNA virus whose hallmark is the reverse transcription of its genomic RNA to DNA by the enzyme reverse transcriptase.
- b) The typical clinical findings in the acute HIV syndrome occur along with a burst of plasma viremia
- c) Disorders of the hematopoietic system may be the direct result of HIV, manifestations of secondary infections and neoplasms, or side effects of therapy
- d) Persistent generalized lymphadenopathy in HIV infected persons is defined as the presence of enlarged lymph nodes (<1 cm) in one extrainguinal sites for <3 months without an obvious cause
- e) In persistent generalized lymphadenopathy in HIV infected persons the lymphadenopathy is due to marked follicular hyperplasia in the node in response to streptococcal infection

115. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) The most common presentation of MAC infection is disseminated disease with fever, weight loss, and night sweats; (chest x-ray is abnormal in 25% of patients with bilateral, lower lobe infiltrate)
- b) Compliance is an important part of ensuring maximal effect from a given regimen. The simpler the regimen, the easier it is for the patient to be compliant.
- c) Disorders of the hematopoietic system including lymphadenopathy, anemia, leukopenia, and/or thrombocytopenia are not common throughout the course of HIV infection
- d) In persistent generalized lymphadenopathy in HIV infection the nodes are generally not movable
- e) The CD4 molecule is a protein found predominantly on a subset of T lymphocytes that are responsible for helper function in the immune system

116. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) HIV-associated dementia (HAD), or HIV encephalopathy, is not considered an AIDS-defining illness.
- b) In HIV infection once individuals have had an clinical condition in category AIDS, their disease classification can be reverted back to a less severe category if the condition resolves
- c) The treatment of HIV-infected children involves unique pharmacologic, virologic, and immunologic considerations, but the same principles apply to children and adults.
- d) In disorders of the hematopoietic system in HIV infection the direct histologic examination and culture of lymph node or bone marrow tissue are often diagnostic
- e) The CD4 molecule is expressed on the surface of T lymphocytes and also on the surface of monocytes/macrophages and dendritic/Langerhans cells.

117. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) Oral lesions, including thrush, hairy leukoplakia, and aphthous ulcers are rare in patients with untreated HIV infection.
- b) In acute primary infection, patients may experience clinical signs of aseptic meningitis (the facts

suggests an immune-mediated disease), that do not resolve spontaneously

c) The same daily regimen of a single double-strength tablet of TMP/SMX used for *P. jiroveci* prophylaxis provides adequate primary protection against toxoplasmosis

d) In patients with HIV inf. in early-stage disease lymph node biopsy is not indicated unless there are signs of systemic illness (fever, weight loss), or unless the nodes begin to enlarge, become fixed, or coalesce

e) The two major co-receptors for HIV-1 are CCR5 and CXCR4

118. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

a) In addition to dementia, patients with HIV encephalopathy may not have motor and behavioral abnormalities

b) Histoplasmosis, coccidioidomycosis, and penicilliosis have all been identified as a cause of fever and diarrhea in patients with HIV infection

c) Cerebral toxoplasmosis is suspected on the basis of MRI findings or double-dose contrast CT of multiple lesions in multiple locations, ring enhancement on contrast (in some cases only a single lesion is seen)

d) The viral reverse transcriptase enzyme catalyzes the reverse transcription of the genomic RNA into DNA, and the protein coat opens to release the resulting double-strand proviral HIV-DNA

e) Imaging studies of the CNS, by either MRI or CT, cannot demonstrate evidence of cerebral atrophy in HIV-associated dementia

119. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

a) Patients with HIV infection may present with focal neurologic deficits usually from

b) Patients initiating antiretroviral therapy must be willing to commit to life-long treatment and understand the importance of adherence to their prescribed regimen.

c) Following the initiation of effective cART, a paradoxical worsening of preexisting, untreated, or partially treated opportunistic infections may be noted in HIV infected persons

d) Combination ARV therapy is of no benefit in patients with HIV encephalopathy

e) Kaposi's sarcoma is a multicentric neoplasm consisting of multiple vascular nodules appearing in the skin, mucous membranes, and viscera in HIV persons

120. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

a) Cellular activation plays an important role in the replication cycle of HIV and is critical to the pathogenesis of HIV disease

b) As patients with HIV infection may have a positive throat culture for *Candida* in the absence of thrush, culturing is of no diagnostic value

c) Combination antiretroviral therapy (cART), also referred to as highly active antiretroviral therapy (HAART), is the cornerstone of management of patients with HIV infection

d) Toxoplasmosis is generally an early complication of HIV infection and usually occurs in patients with CD4+ T cell counts >350/L

e) The majority of cases of CMV retinitis occur in patients with a CD4+ T cell count >350/L

121. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

a) The neoplastic diseases that are not considered to be AIDS-defining conditions are Kaposi's sarcoma, non-Hodgkin's lymphoma, and invasive cervical carcinoma

b) Cerebral toxoplasmosis is thought to represent a primary infestation

c) CMV retinitis usually presents as a painless, progressive loss of vision, usually bilateral, although typically it affects one eye more than the other in HIV persons

d) PCR has been used to detect specific DNA sequences for *P. jiroveci* in clinical specimens where histologic examinations have failed to make a diagnosis.

e) In HIV infection some degree of activation of the host cell is required for the initiation of transcription of the integrated proviral DNA into either genomic RNA or mRNA

122. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

a) The HIV viral particle is formed by the assembly of HIV proteins, enzymes, and genomic RNA at the plasma membrane of the cells

b) If the initial stool examinations are negative in a patient with HIV inf. and diarrhea, additional evaluation should include upper and/or lower endoscopy with biopsy

c) When lamivudine, emtricitabine, or tenofovir is used to treat hepatitis B inf. in the setting of HIV inf., it is not necessary to ensure that the patient is also on additional antiretroviral medication

d) Antiretroviral treatment interruption is associated with slow increases in HIV RNA levels and slow declines in CD4+ T cell counts

e) Generalized wasting is an AIDS-defining condition and is defined as involuntary weight loss of >10% associated with intermittent or constant fever or chronic diarrhea lasting >30 days in the absence of a defined cause other than HIV infection

123. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

a) Lumbar puncture is an important element of the evaluation of patients with HIV encephalopathy and is generally most helpful in ruling out or making a diagnosis of opportunistic infections.

b) The HIV reverse transcriptase, protease, and integrase enzymes as well as the process of virus-target cell binding and fusion have proved clinically to be susceptible to pharmacologic disruption

c) Plasma HIV RNA levels never indicate the magnitude of HIV replication and the rate of CD4+ T cell destruction

d) Antiretroviral drugs can be used as monotherapy for HIV infection

e) Patients with HIV infection may present with focal neurologic deficits from toxoplasmosis, progressive multifocal leukoencephalopathy, and CNS lymphoma.

124. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

a) Antiretroviral treatment of HIV infection lead to eradication or cure of HIV

b) There is high evidence that HIV is transmitted by casual contact or that the virus can be spread by insects bite.

c) Multinucleated giant cells, macrophages, and microglial cells appear to be the main cell types harboring HIV in the CNS

d) The clinical spectrum of HIV disease is constantly changing as patients live longer and new and better approaches to treatment and prophylaxis are developed

e) Arterial blood-gas measurements in HIV-associated PCP aid in making the diagnosis of PCP, and provide important information for staging the severity of the disease and directing treatment

125. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

a) Wide variety of factors including viral load and the presence of ulcerative genital diseases influence the efficiency of heterosexual transmission of HIV

b) It is advisable for all patients with a diagnosis of HIV infection to have a baseline MMSE (Mini-Mental Status Examination)

c) HIV-associated cardiomyopathy generally occurs as an early complication of HIV infection and, histologically, displays elements of myocarditis

d) CD4+ T cell counts cannot indicate the current level of competence of the immune system.

e) Oral hairy leukoplakia presents as white, frond like lesions, generally along the lateral borders of the tongue and sometimes on the adjacent buccal mucosa

126. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Generalized wasting is an AIDS-defining condition and is defined as involuntary weight loss of <10% associated with intermittent or constant fever or chronic diarrhea lasting <30 days
- b) HIV encephalopathy is generally a late complication of HIV infection that progresses slowly over months
- c) Antiretroviral treatment decisions are not individualized based on plasma HIV RNA levels and CD4+ T cell counts
- d) Damage to the CNS may be a direct result of HIV infection of the CNS macrophages or glial cells or may be secondary to the release of neurotoxins and potentially toxic cytokines
- e) Microorganisms such as *Treponema pallidum*, *Haemophilus ducreyi*, and HSV are important causes of genital ulcerations linked to transmission of HIV

127. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) JC virus, a human polyomavirus that is the etiologic agent of progressive multifocal leukoencephalopathy (PML), is an important opportunistic pathogen in patients with AIDS
- b) Active TB infection may be present in bone, brain, meninges, GI tract, lymph nodes (particularly cervical lymph nodes), and viscera in patients with advanced HIV infection
- c) Bacterial vaginosis, an infection related to sexual behavior, but not strictly an STD, may also be linked to an increased risk of transmission of HIV infection
- d) Cerebral toxoplasmosis is not considered an AIDS-defining illness.
- e) Arterial blood-gas measurements is of no use in HIV-associated PCP

128. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) HIV-associated PCP may have an indolent course characterized by weeks of vague symptoms
- b) Dermatologic problems occur in >90% of patients with HIV inf., from the macular, roseola-like rash seen with the acute seroconversion syndrome to extensive end-stage KS
- c) Treating STDs and genital tract syndromes cannot help prevent transmission of HIV
- d) Acute HIV syndrome is an AIDS-defining condition
- e) Cryptococcal neoformans is one of the cause of meningitis in patients with AIDS

129. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) HIV replication occurs mainly in hepatocytes
- b) There are no specific criteria for HIV encephalopathy, and this syndrome must be differentiated from a number of other diseases that affect the CNS of HIV-infected patients
- c) Neutropenia is most frequently seen in patients with severely advanced HIV disease and in patients receiving any of a potentially myelosuppressive therapies
- d) Antiretroviral therapy dramatically reduces plasma viremia in most HIV-infected individuals and is associated with a reduction in risk of transmission
- e) Disseminated tuberculosis is not considered an AIDS-defining illness.

130. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) In HIV encephalopathy behavioral problems include apathy, irritability, and lack of initiative, with progression to a vegetative state in some instances
- b) Persistent generalized lymphadenopathy is an AIDS-defining condition
- c) Among the more frequent opportunistic diseases that involve the CNS in HIV inf. persons are toxoplasmosis, cryptococcosis, progressive multifocal leukoencephalopathy, primary CNS lymphoma
- d) A prolonged interval between membrane rupture and delivery does not increase the risk for HIV transmission
- e) Two forms of idiopathic interstitial pneumonia have been identified in patients with HIV infection: lymphoid interstitial pneumonitis (LIP) and nonspecific interstitial pneumonitis (NIP).

131. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Generalized wasting is an AIDS-defining condition and is defined as involuntary weight loss of >10% associated in the presence of a defined cause other than HIV infection
- b) Anemia is the most common hematologic abnormality in HIV-infected patients and, in the absence of a specific treatable cause, is independently associated with a poor prognosis
- c) The antiretroviral drugs should be used in monotherapy regimens
- d) HIV replication occurs mainly in lymphoid tissue and not in blood and the level of plasma viremia directly reflects virus production in lymphoid tissue.
- e) Women should receive optimal antiretroviral therapy regardless of pregnancy status

132. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) HIV-associated PCP should be included in the differential diagnosis of fever, pulmonary complaints, or unexplained weight loss in any patient with HIV infection and <200 CD4+ T cells/L
- b) In HIV infection some patients experience progressive generalized lymphadenopathy early in the course of the infection; others experience varying degrees of transient lymphadenopathy.
- c) In acute HIV syndrome the symptoms usually persist for 1-4 weeks and gradually subside as an immune response to HIV develops and the levels of plasma viremia decrease
- d) HIV replicates most efficiently in CD8+ T cells
- e) The diagnosis of acute HIV infection depends on the demonstration of antibodies to HIV

133. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) Among the more frequent opportunistic diseases that involve the CNS in HIV inf. persons are pneumocystosis
- b) Oral hairy leukoplakia is an AIDS-defining condition
- c) The differential diagnosis of enhancing mass lesions in the HIV-infected patient includes primary CNS lymphoma, toxoplasmosis, and less commonly, TB or fungal or bacterial abscesses
- d) Elevation of lactate dehydrogenase is common in HIV-associated PCP
- e) In HIV infection lymphadenopathy reflects the cellular activation and immune response to the virus in the lymphoid tissue

134. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) HIV provirus (DNA) cannot integrate into the nuclear DNA through the action of virally encoded enzyme, integrase
- b) Activation of the immune system and variable degrees of inflammation are essential components of any appropriate immune response to a foreign antigen
- c) As immunologic function declines, the risk and severity of HIV-associated dementia increases
- d) In HIV encephalopathy among the motor problems are unsteady gait, poor balance, tremor, and difficulty with rapid alternating movements
- e) Patients diagnosed with HIV infection who are seropositive for IgG antibodies to T. gondii should be counseled about ways to minimize the risk of primary infection

135. Capitol: HIV Mod de punctare: A3Indicate the correct answers:

- a) The diagnosis of HIV infection depends on the demonstration of antibodies to HIV and/or the direct detection of HIV or one of its components.
- b) Lymphadenopathy occurs in 70% of individuals with primary HIV infection
- c) HIV encephalopathy is generally an early complication of HIV infection that progresses rapidly over days
- d) The less suppression of viral replication the less likely the appearance of drug-resistant quasispecies

e) In HIV-associated PCP the most common finding on chest x-ray is a faint bilateral interstitial infiltrate. The classic finding of a dense perihilar infiltrate is unusual in patients with AIDS

136. Capitol: HIV Mod de punctare: A3 Indicate the correct answers:

- a) Antibodies to HIV generally appear in the circulation 3-12 weeks following infection
- b) Approximately 60-80% of HIV-infected patients with TB have pulmonary disease, and 30-40% have extrapulmonary disease
- c) In HIV-inf. patients the lesions in reactivation zoster may extend over several dermatomes, be associated with frank cutaneous dissemination, tend to have recurrences of zoster
- d) *Isospora belli* is a coccidian parasite most commonly found as a cause of meningitis in patients with HIV infection from tropical and subtropical regions
- e) The antiretroviral drugs should not be used in combination regimens

137. Capitol: HIV Mod de punctare: A1 Indicate the correct answer:

- a) Today, the rate of mother-to-child transmission has fallen to 1-2% or less in pregnant women who are receiving combination antiretroviral therapy for their HIV infection.
- b) Cryptococcal neoformans is one of the causes of severe diarrhea in patients with AIDS
- c) As immunologic function declines, the risk and severity of HIV-associated dementia decreases
- d) The treatment of HIV-infected children are quite different as the treatment of HIV-infected adults
- e) Potential occupational exposures to HIV is not considered as urgent medical concerns to ensure timely postexposure management

138. Capitol: HIV Mod de punctare: A1 Indicate the correct answer:

- a) The hallmark of HIV disease is a profound immunodeficiency resulting primarily from a progressive quantitative and qualitative deficiency of the subset of cytotoxic T cells
- b) Compliance cannot ensure maximal effect from a given antiretroviral regimen.
- c) The initial evaluation of a patient with HIV inf. and diarrhea should include a set of stool examinations, including culture, examination for ova and parasites, examination for *Clostridium difficile* toxin
- d) The avoidance of breast-feeding of infants who were born of HIV-infected mothers is not practical in developed countries
- e) Clinically, KS has varied presentations and may be seen only at early stage of HIV infection

139. Capitol: HIV Mod de punctare: A1 Indicate the correct answer:

- a) The helper subset of T cells is defined phenotypically by the presence on its surface of the CD8 molecule, which serves as the primary cellular receptor for HIV
- b) Visceral leishmaniasis is recognized with increasing frequency in patients with HIV infection in developed countries
- c) Varicella zoster virus infection is an AIDS-defining condition
- d) Rectal lesions due to the reactivation of HSV are uncommon in HIV-infected patients
- e) The clinical manifestations in Microsporidiosis are similar to those described for cryptosporidia and include abdominal pain, malabsorption, diarrhea, and cholangitis in HIV infected persons.

140. Capitol: HIV Mod de punctare: A1 Indicate the correct answer:

- a) Cryptosporidia, microsporidia, and *Isospora belli* are the most common opportunistic protozoa that infect the CNS
- b) An important lymphoid organ, the gut-associated lymphoid tissue (GALT), is a major target of HIV and the location where large numbers of CD4+ T cells (usually memory cells) are infected and depleted
- c) Chronic diarrheal syndrome is an AIDS-defining condition

- d) Nucleoside analogues do not inhibit DNA synthesis
- e) Most of antiretroviral drugs are not metabolized by the liver and thus cannot cause liver injury

141. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

- a) It is estimated that most of individuals with HIV infection experience an acute clinical syndrome 3-6 months after primary infection.
- b) It is useless for screening for TB of every patient with HIV infection
- c) *S. pneumoniae* and *H. influenzae* are responsible for most cases of bacterial pneumonia in AIDS
- d) In HIV infection the susceptibility to opportunistic disease is not CD4+ T cell count dependent
- e) Chronic fever syndrome is an AIDS-defining condition

142. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

- a) MAC infection is a early complication of HIV infection
- b) The number of available antiretroviral drugs is unlimited, and any decisions on antiretroviral therapy have a short-term impact on future options for the patient.
- c) The differential diagnosis of enhancing mass lesions in the HIV-infected patient includes *Isospora belli* infection
- d) A chronic infection develops and persists with varying degrees of continual HIV replication in the untreated patient for a median of 1 year before the patient becomes clinically ill
- e) A definitive diagnosis of PCP requires demonstration of the organism in samples obtained from induced sputum, bronchoalveolar lavage, transbronchial biopsy, or open-lung biopsy.

143. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

- a) In acute HIV syndrome most patients do not recover spontaneously and many are left with severe depressed CD4+ T cell count
- b) In HIV infection the spectrum of illnesses that one observes do not changes as the CD4+ T cell count declines
- c) Cryptococcal meningitis is particularly common in untreated patients with AIDS in Africa and generally occurs in patients with CD4+ T cell counts >350/L
- d) The selection of mutants that escape control by CD8+ cytolytic T lymphocytes (CTLs) is critical to the propagation and progression of HIV infection.
- e) It is useless for screening for toxoplasmosis of every patient with HIV infection

144. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

- a) During asymptomatic period HIV disease with active virus replication is stopping and not progressive
- b) The more severe and life-threatening complications of HIV infection occur in patients with CD4+ T cell counts >350/L
- c) The appearance of an opportunistic disease never is the first manifestation of HIV infection
- d) A diagnosis of AIDS is made in anyone with HIV infection and a CD4+ T cell count <500/L
- e) The high rate of virus replication associated with inevitable mutations also contributes to the inability of neutralizing antibody to contain the HIV quasispecies present in an individual at any given time

145. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

- a) In patients with HIV infection and advanced disease (AIDS), lymphadenopathy may also be due to atypical mycobacterial infection, toxoplasmosis, systemic fungal infection, or bacillary angiomatosis
- b) In acute HIV syndrome symptoms usually persist for one to several years
- c) HIV disease in untreated patients do not progresses during the clinically latent stage.
- d) Plasma HIV RNA levels should not be monitored following the initiation of therapy or any

change in antiretroviral therapy.

e) In acute HIV syndrome symptoms usually persist for one to several years

146. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

a) During ARV therapy, levels of HIV RNA should be monitored every 3-4 weeks to evaluate the continuing effectiveness of therapy.

b) In HIV infection during the period of clinical latency the depletion of CD4+ T cells continues to be progressive and unrelenting

c) Measurements of changes in HIV RNA levels over time have been of no value in monitoring the disease progression

d) The diagnosis of acute HIV infection depends on the demonstration of antibodies to HIV

e) CD4 count level cannot fluctuate greatly in the setting of secondary infections or immunization

147. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

a) CMV infection of the retina in HIV persons results in a necrotic inflammatory process, and the visual loss that develops is irreversible

b) A person who maintains a very low CD4+ T cell count for a considerable period of time before the initiation of ART has a complete reconstitution of such cells.

c) In HIV infection there is the defects in the ability to produce HIV-specific antibodies

d) T cell-mediated immunity do not play a major role in host defense against most viral infections

e) Patients with HIV infection should have CD4+ T cell measurements performed at the time of diagnosis and every 3-6 weeks thereafter.

148. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

a) Immune Reconstitution Inflammatory Syndrome occurs years following the initiation of antiretroviral therapy

b) Clinical latency in HIV infection is the same as microbiologic latency, since varying levels of virus replication inevitably occur during this period of clinical latency

c) Patients with advanced HIV infection and TB at chest x-ray may reveal diffuse or lower lobe bilateral reticulonodular infiltrates, pleural effusions, and hilar and/or mediastinal adenopathy.

d) HIV infected persons cannot be relatively asymptomatic while CD4 cells progressive decline

e) In most patients, primary infection with or without the acute syndrome isn't followed by a prolonged period of clinical latency or smoldering low disease activity

149. Capitol: HIV Mod de punctare: A1Indicate the correct answer:

a) Constitutional symptoms, such as fever (38.5°C) or diarrhea lasting >1 month is an AIDS-defining condition

b) For HIV-associated PCP is characteristic an abrupt onset, and mucopurulent sputum

c) Antiretroviral treatment interruption is associated with slow increases in HIV RNA levels and slow declines in CD4+ T cell counts

d) The lesions of PML (progressive multifocal leukoencephalopathy) begin as small foci of demyelination in subcortical white matter, may coalesce (MRI reveals multiple, nonenhancing white matter lesions)

e) Candidiasis, oropharyngeal (thrush) is an AIDS-defining condition

150. Capitol: leptospiroza Mod de punctare: A3Indicate the correct answers:

a) Leptospirosis is a globally important zoonotic disease caused by spirochetes

b) General sanitation approaches (e.g., rodent control) and avoidance of swimming in potentially

contaminated places (e.g., for recreational use) are recommended in preventing leptospirosis.

c) Although severe human disease due to a wide variety of leptospires has been reported, some of the leptospires involved are thought to be more intrinsically pathogenic than others.

d) Leptospirosis is classically described as monophasic disease

e) For leptospirosis characteristic laryngotracheobronchitis and pneumonia

151. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

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e) For leptospirosis characteristic laryngotracheobronchitis and pneumonia

152. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) In leptospirosis widespread hepatocellular necrosis is found

b) The incubation period in leptospirosis averages 30-90 days

c) Leptospires infect humans through the mucosa (usually conjunctival and possibly oral or tonsillar) or through macerated, punctured, or abraded skin.

d) The prothrombin and activated partial thromboplastin times are not necessarily elevated in severe leptospirosis, and fibrinogen levels are typically elevated

e) Leptospirosis is classically described as biphasic

153. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) Renal function never returns to normal in survivors of severe disease in leptospirosis.

b) Leptospires are difficult to isolate in pure culture from clinical specimens such as blood, urine, and cerebrospinal fluid (CSF)

c) Skin abnormalities in leptospirosis include vesicle rash and petechiae

d) Leptospirosis is a zoonotic disease. Human-to-human transmission does not occur

e) Rat-associated *L. interrogans* serovars Icterohaemorrhagiae and Copenhageni are mostly commonly associated with Weil's disease

154. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) Biochemical, hematologic, and urinalysis findings in acute leptospirosis are very specific, and always suggest the diagnosis

b) Thrombocytopenia is characteristic, probably reflecting platelet consumption in the activated endothelial surface; platelet counts are lower in severe than in mild leptospirosis

c) A more likely possibility is that leptospires induce endothelial cell dysfunction with organ dysfunction and systemic disease

d) Leptospires are transmitted through direct or indirect contact with contaminated animal urine through surface waters, moist soil, or other wet environments or into contact with urine

e) Neurologic findings in leptospirosis include septic meningitis (in which CSF pleocytosis can range from a few cells to >1000 cells/L)

155. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) In a later immune phase of leptospirosis, fever is not responsive to antibiotic therapy but leptospires can be isolated from urine.

b) In leptospirosis cases of severe pulmonary hemorrhage syndrome that come to autopsy are characterized by the absence of inflammation and grossly obvious frank hemorrhage

c) In leptospirosis hematologic abnormalities are common: severe leukopenia, lymphocytosis, and thrombocytosis.

d) Such antimicrobial drugs as penicillin, ceftriaxone, or cefotaxime should not be used to treat leptospirosis

e) Humid environments, poor sanitation leading to rodent infestation, and uncontrolled dog populations are important for endemic transmission of leptospirosis

156. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) Acute fever in the initial leptospiremic phase lasts for 3-10 days, during which period the organism may be cultured from blood.

b) Inactivated vaccine is available for human leptospirosis

c) Severe leptospirosis never requires empirical initiation of broad-spectrum parenteral therapy before the diagnosis can be confirmed.

d) Thrombocytopenia is characteristic, probably reflecting platelet consumption in the activated endothelial surface; platelet counts are lower in severe than in mild leptospirosis

e) Infection by *Leptospira* does not occur via inhalation, and leptospirosis is a rare cause of laboratory-acquired infection

157. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) Classic Weil's disease is suggested by elevated blood urea nitrogen and serum creatinine, mixed hyperbilirubinemia, ALAT elevation to less than five times the upper limit of normal

b) Liver dysfunction in acute leptospirosis is an independent risk factor for death

c) Weil's disease is characterized by combinations of jaundice, acute kidney injury, hypotension, and hemorrhage-most commonly involving the lungs, but also gastrointestinal tract

d) Clinically evident pulmonary involvement, elevated serum creatinine level, and thrombocytopenia are associated with a good prognosis in leptospirosis

e) Unlike milder forms of leptospirosis, Weil's disease may also be monophasic and fulminant.

158. Capitol: leptospiroza **Mod de punctare:** A3Indicate the correct answers:

a) Skeletal muscle involvement in leptospirosis manifests as severe myalgia of the legs but also of the abdominal muscles; associated with elevated serum concentration of creatine kinase

b) In leptospirosis hypotension is associated with acute tubular necrosis and oliguria, requiring fluid resuscitation, sometimes pressors, and hemodialysis.

c) Microscopic agglutination test in leptospirosis is generally positive in the first 1-7 days after the onset of infection

d) Antiretrovirals is always recommended in the treatment of leptospirosis

e) In leptospirosis acute kidney injury manifests after several days of illness and can be nonoliguric or oliguric, with serum electrolyte abnormalities reflecting proximal renal tubular dysfunction.

159. Capitol: leptospiroza **Mod de punctare:** A1Indicate the correct answer:

a) To visualize the leptospira spirochetes directly in culture or in clinical specimens, dark-field or phase-contrast microscopy must be used.

b) Leptospirosis is a zoonotic disease caused by virus

c) Infection by *Leptospira* occur via inhalation

d) The clinical expression of infection by *Leptospira* includes subclinical infection, an undifferentiated febrile illness, and Weil's disease-the mildest form.

e) Acute fever in the initial leptospiremic phase lasts for more than 2-3 weeks, during which period the organism cannot be cultured from blood.

160. Capitol: leptospiroza **Mod de punctare:** A1Indicate the correct answer:

- a) In leptospirosis human-to-human transmission occur frequently
- b) Leptospire are easy to isolate in pure culture from clinical specimens such as blood, urine, and cerebrospinal fluid (CSF)
- c) In leptospirosis acute inflammation within the kidney is associated with acute tubular necrosis and interstitial nephritis
- d) In a later immune phase of leptospirosis, fever is responsive to antifungal treatment
- e) The natural course of leptospirosis usually ends in chronic disease

161. Capitol: leptospiroza **Mod de punctare:** A1 Indicate the correct answer:

- a) Physical examination in leptospirosis include fever, conjunctival suffusion; chest pain, purulent sputum
- b) The most important sources of transmission of leptospire in humans are rats, dogs, cattle, and pigs.
- c) In leptospirosis jaundice is always associated with fulminant hepatic necrosis and severe hepatocellular damage
- d) In leptospirosis acute kidney injury manifests from the first day of the disease
- e) Classic Weil's disease is suggested by low blood urea nitrogen and creatinine, unconjugated hyperbilirubinemia, ALAT elevation to higher than 15-20 times the upper limit of normal

162. Capitol: leptospiroza **Mod de punctare:** A1 Indicate the correct answer:

- a) As antibodies develop, leptospire are in high concentrations in the blood.
- b) The incubation period in leptospirosis averages 5-14 days (range, 2-30 days)
- c) In leptospirosis the spleen can be enlarged and tender; hepatomegaly is reported in a minority of cases
- d) In leptospirosis hypokalemia and hypomagnesemia are common in oliguric renal failure;
- e) Leptospiral infection resulting from the bite of a rat or another animal is very frequent.

163. Capitol: leptospiroza **Mod de punctare:** A1 Indicate the correct answer:

- a) In leptospirosis is typical pulmonary manifestation with cough, chest pain, and purulent sputum
- b) Leptospiral cultures become positive during the first days and therefore can guide clinical care
- c) Glucocorticoids is always recommended in the treatment of leptospirosis
- d) In leptospirosis hepatic histopathology in fatal cases is associated with disruption of cellular cohesion, plugging of bile canaliculi; widespread hepatocellular necrosis is not found
- e) During incubation period of leptospirosis the eschar and regional lymphadenopathy frequently appear

164. Capitol: leptospiroza **Mod de punctare:** A1 Indicate the correct answer:

- a) Leptospire can be cultured from blood and CSF during the first 7-10 days of illness and from urine beginning in the second week, but cultures usually become positive after 2-4 weeks
- b) Urinalysis in leptospirosis did not show abnormalities of the sediment.
- c) Long-term antibiotic prophylaxis has been shown to be effective in preventing leptospirosis in high-transmission endemic settings
- d) Most patients with leptospirosis treated with ampicillin develop a macular rash
- e) The most characteristic pathologic finding in leptospirosis meningitis is the *Negri body*, an eosinophilic cytoplasmic inclusions in brain neurons

165. Capitol: leptospiroza **Mod de punctare:** A1 Indicate the correct answer:

- a) Leptospiral cultures and not serologic assays are the diagnostic mainstay in leptospirosis
- b) The WBC count is usually elevated and lymphocytosis is usually demonstrable, with >10% atypical lymphocytes.

- c) Cerebral leptospirosis is suspected on the basis of MRI findings or double-dose contrast CT of multiple lesions in multiple locations, ring enhancement on contrast
- d) For leptospirosis is characteristic pharyngotonsillitis and gingivostomatitis
- e) Some patients with leptospirosis experience a return of fever and other systemic symptoms after 3-10 days in association with the clearance of leptospire from the blood and the appearance of antibodies.

166. Capitol: tetanos Mod de punctare: A3Indicate the correct answer:

- a) Tetanus is an acute disease manifested by skeletal muscle spasm and autonomic nervous system disturbance
- b) The tetanus toxin initially binds to peripheral nerve terminals
- c) It is important to establish a secure airway early in severe tetanus
- d) *C. tetani* is an aerobic, gram-positive, spore-forming rod
- e) Tetanus commonly occurs where the vaccination coverage rate is high

167. Capitol: tetanos Mod de punctare: A3Indicate the correct answer:

- a) *C. tetani* spores cannot resist boiling and many disinfectants
- b) In neonates tetanus, infection of the umbilical stump can result from inadequate umbilical cord care
- c) *C. tetani* spores and bacilli survive in the intestinal systems of many animals, and fecal carriage is common
- d) *C. tetani* exotoxin enters the nervous system and causes disease
- e) The tetanus toxin initially binds to CD4 lymphocytes

168. Capitol: tetanos Mod de punctare: A3Indicate the correct answer:

- a) Antitoxin should be given early in an attempt to deactivate any circulating tetanus toxin and prevent its uptake into the nervous system
- b) Autonomic disturbance is maximal during the second week of severe tetanus.
- c) Abdominal muscle rigidity is episodic in tetanus
- d) The prothrombin and activated partial thromboplastin times are necessarily elevated in tetanus
- e) Tetanus is caused by a powerful neurotoxin produced by the bacterium *Clostridium tetani*

169. Capitol: tetanos Mod de punctare: A3Indicate the correct answer:

- a) In tetanus the laryngeal muscles are involved early and this is a life-threatening event as complete airway obstruction may ensue
- b) The tetanus toxin initially binds to peripheral nerve terminals
- c) The distinctive clinical syndrome of tetanus consists of symmetric cranial nerve palsies followed by symmetric descending flaccid paralysis
- d) In tetanus widespread hepatocellular necrosis is found
- e) The diagnosis of tetanus is clinical

170. Capitol: tetanos Mod de punctare: A3Indicate the correct answer:

- a) Liver dysfunction in tetanus is an independent risk factor for death
- b) Thrombocytopenia is characteristic for tetanus, probably reflecting platelet consumption in the activated endothelial surface
- c) The *C. tetani* spores or bacteria enter the body through abrasions, wounds, or (in the case of neonates) the umbilical stump
- d) In developed countries, tetanus is seen occasionally in individuals who are incompletely vaccinated
- e) *C. tetani* is found throughout the world

171. Capitol: tetanos **Mod de punctare:** A3Indicate the correct answers:

- a) If nervous impulses cannot be checked by normal inhibitory mechanisms, the generalized muscular spasms characteristic of tetanus are produced
- b) In tetanus weakness progresses, often rapidly, from the head to involve the neck, arms, thorax, and legs; weakness is asymmetric
- c) Tetanus produces a wide spectrum of clinical features that are broadly divided into generalized (including neonatal) and local
- d) Peripheral nerve sprouting and toxin degradation is involved in recovery from tetanus
- e) Biochemical, hematologic, and urinalysis findings in tetanus are very specific, and always suggest the diagnosis

172. Capitol: tetanos **Mod de punctare:** A3Indicate the correct answers:

- a) Patients sustaining wounds not classified as clean or minor should not undergo passive immunization with TIG.
- b) In tetanus blood pressure is usually labile, with rapid fluctuations from high to low accompanied by tachycardia, episodes of bradycardia and heart block can also occur.
- c) In the treatment of tetanus two preparations are available: human tetanus immune globulin (TIG) and equine antitoxin
- d) Acute renal failure is the commonest cause of death in tetanus.
- e) If the cranial nerves are involved in localized cephalic tetanus, the pharyngeal or laryngeal muscles may spasm, with consequent aspiration or airway obstruction, and the prognosis may be poor

173. Capitol: tetanos **Mod de punctare:** A3Indicate the correct answers:

- a) In tetanus complications arising from treatment are common and include thrombophlebitis associated with diazepam injection, ventilator-associated pneumonia, central-line infections, and septicemia.
- b) In tetanus standard therapy is multiple repeated doses of 3000-6000 IU of TIG or 10,000-20,000 U of equine antitoxin
- c) In tetanus autonomic involvement is evidenced by gastrointestinal stasis, sweating, increased tracheal secretions, and acute (often high-output) renal failure.
- d) Tetanospasmin, which is related to the clostridial toxins and streptolysin, plays no role in the pathogenesis of tetanus.
- e) In tetanus the commonest initial symptoms are trismus (lockjaw), muscle pain and stiffness, back pain, and difficulty swallowing

174. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answers:

- a) *C. tetani* cannot form spores
- b) Failure to remove pockets of ongoing infection may result in recurrent or prolonged tetanus
- c) Tetanus is an acute disease manifested by skeletal muscle paralysis and autonomic nervous system disturbance
- d) The tetanus toxin initially binds to endothelial cells
- e) Tetanus in pregnant women and neonates cannot be prevented by maternal immunization during pregnancy

175. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answers:

- a) The diagnosis of tetanus is made only by laboratory confirmation

- b) In neonatal tetanus, the younger the infant is when symptoms occur, the better the prognosis
- c) Tetanus toxin has been "weaponized" by governments and terrorist organizations
- d) The effect of the tetanus toxin is to block the release of inhibitory neurotransmitters glycine and gamma-Aminobutyric acid (GABA) across the synaptic cleft, which is required to check the nervous impulse.
- e) Tetanus produces a wide spectrum of clinical features that are broadly divided into gastrointestinal and pulmonary

176. Capitol: tetanos Mod de punctare: A1Indicate the correct answers:

- a) Inhibition of acetylcholine release by tetanus toxin results in characteristic flaccid paralysis
- b) Person-to-person transmission of tetanus has been described
- c) Cranial nerve palsies are the presenting manifestations of tetanus that typically cause patients to seek medical care
- d) Food-borne tetanus is associated with risky home-canning practices
- e) The tetanus toxin is transported within the axon and across synaptic junctions until it reaches the CNS

177. Capitol: tetanos Mod de punctare: A1Indicate the correct answers:

- a) Tetanus is defined as "the acute onset of hypertonia and painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause
- b) Tetanus cannot be prevented by vaccination
- c) The *C. tetani* spores or bacteria enter the body through gastrointestinal tract
- d) Abdominal muscle rigidity is episodic in tetanus
- e) Once in a suitable aerobic environment, the *C.tetani* organisms grow, multiply, and release tetanus toxin

178. Capitol: tetanos Mod de punctare: A1Indicate the correct answers:

- a) Antitoxin should be given on the 3-4 week of the disease
- b) In tetanus the incubation period and the time from first symptom to first generalized spasm are of particular significance; longer times are associated with worse outcome.
- c) Neonatal tetanus is defined by the WHO as "an illness occurring in a child who has the normal ability to suck and cry in the first 2 days of life but who loses this ability between days 3 and 28 of life and becomes rigid and has spasms
- d) In tetanus cultures become positive during the first days and therefore can guide clinical care
- e) Physical examination in tetanus include fever, conjunctival suffusion; chest pain, purulent sputum

179. Capitol: tetanos Mod de punctare: A1Indicate the correct answers:

- a) The clinical manifestations of tetanus occur only before tetanus toxin has reached presynaptic inhibitory nerves
- b) In neonates maternal vaccination cannot prevent tetanus
- c) In tetanus acute kidney injury manifests from the first days of the disease
- d) Maternal tetanus is defined by the WHO as tetanus occurring during pregnancy or within 6 weeks after the conclusion of pregnancy (whether with birth, miscarriage, or abortion).
- e) *C.tetani* can be cultured from blood and CSF during the first 7-10 days of illness

180. Capitol: tetanos Mod de punctare: A1Indicate the correct answers:

- a) In the typical progression of generalized tetanus, muscles of the face and jaw often are affected first, presumably because of the shorter distances toxin must travel up motor nerves to reach presynaptic terminals
- b) In tetanus is not necessary the entry wound to be identified, cleaned, and debrided of necrotic

material

- c) In tetanus spasm of the respiratory muscles cannot results in respiratory failure
- d) In tetanus the spleen can be enlarged and tender; hepatomegaly is reported in a minority of cases
- e) Recovery from tetanus takes only several days.

181. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answers:

- a) In tetanus spasms cannot be controlled by heavy sedation using benzodiazepines (chlorpromazine or phenobarbital), or IV magnesium sulfate as a muscle relaxant
- b) In neonates, use of safe, clean delivery and cord-care practices as well as maternal vaccination cannot prevent tetanus
- c) The other type of striated muscle, cardiac, or heart muscle , cannot be tetanized because of its intrinsic electrical properties.
- d) Rapid development of tetanus is associated with less severe disease and poorer outcome
- e) In tetanus acute inflammation within the kidney is associated with acute tubular necrosis and interstitial nephritis

182. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answers:

- a) Tetanus can be suggested by high blood urea nitrogen and creatinine, ALAT elevation to higher than 15-20 times the upper limit of normal
- b) Individuals sustaining tetanus-prone wounds should be immunized if their vaccination status is incomplete or unknown or if their last booster was given >10 years earlier.
- c) Glucocorticoids is always recommended in the treatment of tetanus
- d) Infection by *C.tetani* can occur via inhalation
- e) The natural course of tetanus can ends in chronic disease

183. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answer:

- a) In the usually mild form of local tetanus, only isolated areas of the body are affected and only small areas of local muscle spasm may be apparent.
- b) In teatanus blood pressure is usually stabile, without rapid fluctuations from high to low
- c) Deeper infections (e.g., attributable to open fracture, abortion, or drug injection) are associated with less severe tetanus and beter outcomes
- d) In tetanus standard therapy is vaccination with tetanus toxoid (TT) or TT with high- or low-dose diphtheria toxoid, or TT with diphtheria toxoid in combination with pertussis vaccine.
- e) *C. tetani* spores are not resistant and only shortly survive in the environment throughout the world

184. Capitol: tetanos **Mod de punctare:** A1Indicate the correct answer:

- a) In tetanus recovery is typically incomplete and hypertonia and painful muscular contractions persist chronically
- b) Rapid fluctuations in blood pressure and heart rate is not characteristic for tetanus
- c) Tracheal secretions are increased in tetanus, and dysphagia due to pharyngeal involvement combined with hyperactivity of laryngeal muscles makes endotracheal intubation difficult.
- d) Renal failure is the commonest cause of death in tetanus
- e) Metronidazole is inefficient in the treatment of tetanus

185. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) Botulism, a rare disease, occurs naturally as: food-borne illness, or wound infection, or infant botulism, adult intestinal toxemia
- b) The mainstays of botulism therapy are timely treatment with antitoxin, which may limit the extent of paralysis
- c) In food-borne botulism, the incubation period is usually 18-36 h but, depending on the toxin dose,

can range from a few hours to several days.

- d) Botulinum toxin production, requires spore germination, which occurs only in aerobic atmosphere, a pH of >4.5, high salt and sugar concentrations, and temperatures of 4-120°C
- e) Person-to-person transmission of botulism was often described.

186. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) In botulism weakness progresses slowly during weeks, from the legs to thorax, arms, to neck and head.
- b) Commonly ingested botulinum spores normally germinate in the human intestine.
- c) All forms of botulism may progress to respiratory compromise and death
- d) Adult intestinal toxemia is a rare form of colonization with similarities to infant botulism
- e) Botulinum toxin-producing clostridia form subterminal spores are ubiquitous in the environment

187. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) Wound botulism is due to wound colonization by toxigenic clostridia with in situ toxin production
- b) The spores of botulism survive environmental conditions and ordinary cooking procedures
- c) Cranial nerve involvement never marks the onset of symptoms of botulism
- d) Food-borne botulism is caused by consumption of unsafe water contaminated with botulinum toxin.
- e) The central nervous system probably is not involved in botulism

188. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) Infant botulism is due to colonization of the infant intestine by toxigenic clostridia with in situ toxin production
- b) Toxin botulinum serotypes A, B, E, and (rarely) F cause human disease.
- c) The distinctive clinical syndrome of botulism consists of asymmetric cranial nerve palsies followed by asymmetric ascending flaccid paralysis that may progress to respiratory arrest
- d) Most botulism cases are sporadic; outbreaks are typically small, involving two or three cases.
- e) The extent of paralysis in botulism (from a few cranial nerves only to quadriplegia) do not depends on the toxin dose.

189. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) Inhibition of acetylcholine release by any of the botulinum toxin serotypes results in characteristic flaccid paralysis
- b) Botulinum toxin type A produces the most severe syndrome, with the greatest proportion of patients requiring mechanical ventilation.
- c) Food-borne botulism is associated with risky home-canning practices
- d) In wound botulism, material from abscesses should be collected in aerobic culture tubes for testing at public health laboratories
- e) Standard blood work and radiologic studies are useful in diagnosing botulism.

190. Capitol: botulism **Mod de punctare:** A3Indicate the correct answers:

- a) Botulinum toxin has been "weaponized" by governments and terrorist organizations
- b) In botulism miosis are noted in most of patients
- c) The absence of cranial nerve palsies or their onset after the appearance of other true neurologic symptoms makes botulism highly unlikely
- d) The clinical presentation of infant botulism do not resembles that of adult forms of botulism
- e) Wound botulism is caused by contamination of wounds with C. botulinum spores, subsequent

spore germination, and toxin production in the anaerobic milieu of an abscess.

191. Capitol: botulism Mod de punctare: A3Indicate the correct answers:

- a) In botulism autonomic symptoms may include anhidrosis, with pronounced mucosal erythema and pain mimicking pharyngitis, and postural hypotension.
- b) In food-borne botulism, nausea, vomiting, and abdominal pain may precede or follow the onset of paralysis
- c) Patients are usually febrile in botulism
- d) Botulism is a demyelinating polyneuropathy that presents most often as an ascending paralysis
- e) Wound botulism is occurred almost exclusively in injection drug users

192. Capitol: botulism Mod de punctare: A3Indicate the correct answers:

- a) In botulism constipation due to paralytic ileus is nearly universal, and urinary retention is also common
- b) Protein levels and WBC in cerebrospinal fluid (CSF) are elevated in all forms of botulism
- c) Dizziness, dry mouth, and very dry, occasionally sore throat are uncommon in botulism
- d) Cranial nerve palsies are the presenting manifestations of botulism that typically cause patients to seek medical care
- e) Infant botulism results from absorption of toxin produced in situ by toxigenic clostridia colonizing the intestine of children ≤ 1 year of age

193. Capitol: botulism Mod de punctare: A3Indicate the correct answers:

- a) In wound botulism the clinical syndrome is indistinguishable from that of food-borne botulism except that gastrointestinal symptoms are typically absent.
- b) Cranial nerve involvement in botulism usually produces diplopia, dysarthria, dysphonia, and/or dysphagia.
- c) Patients often exhibit sensory or cognitive deficits in botulism
- d) Infection by botulism occur via inhalation
- e) In infant botulism colonization is believed to occur because the normal bowel flora is not yet fully established.

194. Capitol: botulism Mod de punctare: A3Indicate the correct answers:

- a) In the usually mild form of local botulism, only isolated areas of the body are affected and only small areas of local muscle spasm may be apparent.
- b) Vital signs are usually normal in botulism, but in some cases hypotension occurs
- c) Thrombocytopenia is characteristic in borulism, probably reflecting platelet consumption in the activated endothelial surface
- d) Extraocular muscle paralysis manifests as blurred vision or diplopia and an inability to accommodate near vision.
- e) The clinical presentation of infant botulism include inability to suck and swallow, weakened voice, ptosis, floppy neck, sometimes with progression to generalized flaccidity and respiratory compromise.

195. Capitol: botulism Mod de punctare: A3Indicate the correct answers:

- a) Toxin binding to the neuromuscular junction is reversible in botulism
- b) In botulism the patients are generally disoriented
- c) In botulism the patients are generally disoriented
- d) Death in botulism can also result from nosocomial infections and other sequelae of long-term paralysis, hospitalization, and mechanical ventilatory support
- e) Botulinum toxin production, requires spore germination, which occurs only in anaerobic

atmosphere, a pH of >4.5, low salt and sugar concentrations, and temperatures of 4-120°C

196. Capitol: botulism **Mod de punctare:** A3 Indicate the correct answers:

- a) Death in untreated botulism is usually due to airway obstruction from pharyngeal muscle paralysis and inadequate tidal volume resulting from paralysis of diaphragmatic and accessory respiratory muscles.
- b) The universally accepted method for confirmation of botulism is the mouse bioassay
- c) Botulism are treated with equine-source antitoxin
- d) Botulinum antitoxin neutralizes only toxin molecules that have been bound to nerve endings; and can reverse existing paralysis
- e) The cornerstones of treatment for botulism are immediate administration of albumin or fresh frozen plasma

197. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) Botulinum neurotoxin enters the vascular system, is transported to peripheral cholinergic nerve terminals, including neuromuscular junctions, postganglionic parasympathetic nerve endings, and peripheral ganglia.
- b) The mainstays of botulism therapy are timely treatment with vaccine, which may limit the extent of paralysis
- c) Botulinum toxin-producing clostridia are anaerobic gram-negative organisms
- d) All forms of botulism may progress to acute renal failure and death
- e) In botulism brain imaging can reveal basilar stroke that produces symmetric bulbar palsies

198. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) The central nervous system is involved in botulism and is manifested as meningoencephalitis
- b) The spores of botulism does not survive ordinary cooking procedures
- c) Treatment with the equine-origin antitoxins cannot be associated with anaphylaxis
- d) Botulism is caused by the toxin's inhibition of acetylcholine release at the neuromuscular junction through an enzymatic mechanism.
- e) The neutralization of the paralytic effects in mice by a specific antitoxin cannot provides evidence of that toxin serotype in the clinical sample of botulism.

199. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) Acute fever in botulism lasts for more than 2-3 weeks
- b) In botulism hypokalemia and hypomagnesemia are common in oliguric renal failure
- c) Whether ingested, inhaled, or produced in the intestine or a wound, botulinum neurotoxin enters the vascular system and is transported to peripheral cholinergic nerve terminals
- d) In wound botulism, suspect wounds and abscesses should not be cleaned, debrided, and drained
- e) Botulinum toxin-producing clostridia are aerobic gram-positive organisms

200. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) All forms of botulism manifest as a distinct clinical syndrome of symmetric cranial nerve palsies followed by descending symmetric flaccid paralysis of voluntary muscles
- b) The decision to administer botulinum antitoxin-the only specific treatment-must be based on a clinical diagnosis and must be postponed while laboratory confirmation is awaited
- c) In botulism recovery is typically incomplete and hypertonia and painful muscular contractions persist chronically
- d) Skin abnormalities in botulism include maculopapular rash
- e) In botulism hepatic histopathology in fatal cases is associated with widespread hepatocellular

necrosis

201. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) Because of skeletal muscle paralysis, patients in botulism experiencing respiratory distress may appear placid and detached even as they near respiratory arrest.
- b) Biochemical, hematologic, and urinalysis findings in leptospirosis are very specific, and always suggest the diagnosis
- c) *C. botulinum* replicates most efficiently in resting CD4+ T cells
- d) Chronic botulism occurs to varying degrees in 50-70% of individuals
- e) In botulism is typical the manifestation of an acute infectious mononucleosis like syndrome

202. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) In botulism acute inflammation within the kidney is associated with acute tubular necrosis
- b) Lymphadenopathy is characteristic for individuals with food-borne botulism
- c) Most patients with botulism present with a picture of subacute meningoencephalitis with fever, nausea, vomiting, altered mental status, headache, meningeal signs.
- d) The most important sources of transmission of botulism in humans are rats and dogs
- e) One of the step in botulinum neurotoxin activity include binding to nerve terminals, and serotype-specific cleavage of one of several proteins involved in the release of the neurotransmitter acetylcholine.

203. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) In botulism acute inflammation within the kidney is associated with acute tubular necrosis
- b) Lymphadenopathy is characteristic for individuals with food-borne botulism
- c) Most patients with botulism present with a picture of subacute meningoencephalitis with fever, nausea, vomiting, altered mental status, headache, meningeal signs.
- d) One of the step in botulinum neurotoxin activity include binding to nerve terminals, and serotype-specific cleavage of one of several proteins involved in the release of the neurotransmitter acetylcholine.
- e) The most important sources of transmission of botulism in humans are rats and dogs

204. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) Botulinum antitoxin can reverse existing paralysis
- b) Patients with botulism do not recover fully
- c) In botulism autonomic involvement is evidenced by gastrointestinal stasis, sweating, increased tracheal secretions, and acute (often high-output) renal failure.
- d) Disorders of the hematopoietic system may be the direct result of *C. botulini* action
- e) In botulism paralysis of the diaphragm and accessory breathing muscles may result in respiratory compromise or arrest and death.

205. Capitol: botulism **Mod de punctare:** A1 Indicate the correct answer:

- a) An immediately hospitalization is not necessary in persons in whom botulism is suspected
- b) Infant botulism is treated with a equine-source antitoxin and not with licensed human-origin antitoxin
- c) The most common presentation of botulism is disseminated disease with fever, weight loss, and night sweats
- d) In botulism pharyngeal collapse secondary to cranial nerve paralysis may compromise the airway and require intubation in the absence of respiratory muscle compromise.

e) Imaging studies of the CNS, by either MRI or CT, can demonstrate evidence of cerebral atrophy in botulism dementia

206. Capitol: botulism Mod de punctare: A1 Indicate the correct answer:

a) In botulism cranial nerve palsies are characteristically followed by flaccid, ascending, asymmetric paralysis of voluntary muscles

b) A botulism case is not a public health emergency.

c) Patients sustaining wounds not classified as clean or minor should not undergo passive immunization with equine-source botulinum antitoxin

d) In addition to dementia, patients with botulism encephalopathy have motor and behavioral abnormalities

e) Adult intestinal toxemia botulism results from absorption of toxin produced in situ after rarely occurring intestinal colonization with toxigenic clostridia

207. Capitol: botulism Mod de punctare: A1 Indicate the correct answer:

a) Antitoxin should be given later in the course of botulism, in the convalescence period.

b) In botulism the commonest initial symptoms are muscle pain and stiffness, back pain, and difficulty swallowing

c) Botulism in pregnant women and neonates can be prevented by maternal immunization during pregnancy

d) In adult intestinal toxemia botulism patients have some anatomic or functional bowel abnormality or have recently used antibiotics.

e) Cerebral botulism is suspected on the basis of MRI findings or double-dose contrast CT

208. Capitol: botulism Mod de punctare: A1 Indicate the correct answer:

a) In adult intestinal toxemia botulism despite antitoxin treatment, protracted symptoms or relapse due to ongoing intraluminal production of toxin may be observed.

b) Prophylaxis or licensed vaccine for botulism is available

c) C. botulinum is not susceptible to penicillins and various other antimicrobial agents

d) The clinician must not report a suspected case of botulism on an emergency basis to the state health department, because an initiation of an epidemiologic investigation is useless

e) Oral lesions, including thrush, hairy leukoplakia, and aphthous ulcers are often seen in patients with untreated botulism

209. Capitol: brucellosis Mod de punctare: A3 Indicate the correct answers:

a) The natural course of brucellosis always ends in chronic disease

b) B. melitensis and B. suis have been developed as biological weapons by several countries and could be exploited for bioterrorism.

c) Evaluation of patients with chronic brucellosis includes careful exclusion of malingering, nonspecific chronic fatigue syndromes, and other causes of excessive sweating.

d) B. melitensis is the most common cause of symptomatic disease in humans and for which the main sources are sheep, goats, and camels;

e) Biochemical, hematologic, and urinalysis findings in acute brucellosis are very specific, and always suggest the diagnosis

210. Capitol: brucellosis Mod de punctare: A3 Indicate the correct answers:

a) Brucellosis is a bacterial zoonosis transmitted directly or indirectly to humans from infected animals, predominantly domesticated ruminants and swine.

b) Brucellosis may be acquired by ingestion, inhalation, or mucosal or percutaneous exposure

c) In brucellosis in the vertebrae, anterior erosions of the superior end plate are typically the first

features to become evident, with eventual involvement and sclerosis of the whole vertebra.

d) More than 50% of patients die of brucellosis

e) Rat-associated brucellosis are mostly commonly associated with Weil's disease

211. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

a) The incubation period in brucellosis averages 1-3 days

b) In brucellosis jaundice is always associated with fulminant hepatic necrosis and severe hepatocellular damage

c) Brucellosis almost invariably causes fever, which may be associated with profuse sweats, especially at night.

d) As in other types of intracellular infection, it is assumed that initial replication of brucellae takes place within cells of the lymph nodes draining the point of entry

e) *B. abortus* is usually acquired from cattle or buffalo

212. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

a) Despite the low mortality rate, recovery from brucellosis is slow, and the illness can cause prolonged inactivity, with domestic and economic consequences.

b) Clinically evident pulmonary involvement, elevated serum creatinine level, and thrombocytopenia are associated with a good prognosis in brucellosis

c) In brucellosis cases of severe pulmonary hemorrhage syndrome that come to autopsy are characterized by the absence of inflammation and grossly obvious frank hemorrhage

d) In endemic areas, brucellosis may be difficult to distinguish from the many other causes of fever.

e) *B. suis* generally is acquired from swine but has one variant enzootic in reindeer and caribou and another in rodents

213. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

a) Both acute and chronic inflammatory responses develop in brucellosis

b) *Brucella* cultures become positive during the first days and therefore always can guide clinical care

c) All brucellae are small, gram-negative, unencapsulated, nonsporulating, nonmotile rods or coccobacilli

d) Antiretrovirals is always recommended in the treatment of brucellosis

e) *B. ovis*, which causes reproductive disease in sheep, and *B. neotomae*, which is specific for desert rodents, have not been clearly implicated in human disease

214. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

a) In vivo, brucellae behave as facultative intracellular parasites

b) Brucellosis is a zoonosis whose occurrence is closely related to its prevalence in domesticated animals

c) Significant neurologic disease due to *Brucella* species requires prolonged treatment (i.e., for 3-6 months), usually with ceftriaxone supplementation of a standard regimen.

d) Glucocorticoids is always recommended in the treatment of brucellosis

e) During incubation period of brucellosis the eschar and regional lymphadenopathy frequently appear

215. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

a) The clinical syndromes caused by the different nomen species are similar, although *B. melitensis* tends to be associated with a more acute and aggressive presentation

b) *Brucella* organisms taken up by macrophages and other cells can establish persistent intracellular

infections

- c) Brucellosis commonly occurs where the vaccination coverage rate is high
- d) Dairy products, especially soft cheeses, unpasteurized milk, and ice cream, are the most frequently implicated sources of infection in Brucellosis
- e) Brucellosis commonly occurs where the vaccination coverage rate is high

216. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) *Brucella abortus* infections may be more insidious in onset and more likely to become chronic
- b) Although brucellosis is a chronic intracellular infection, there is no evidence for increased prevalence or severity among individuals with HIV infection or with immunodeficiency or immunosuppression of other etiologies.
- c) In brucellosis human-to-human transmission occur frequently
- d) Abdominal muscle rigidity is constant in brucellosis
- e) *Brucellae* are killed by common disinfectants used under optimal conditions but are likely to be much more resistant at low temperatures or in the presence of heavy organic contamination

217. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) In developed countries, brucellosis is seen occasionally in individuals who are incompletely vaccinated
- b) In brucellosis the triple-drug regimen should be considered for all patients with complicated disease and for those for whom treatment adherence is likely to be a problem.
- c) Despite the low mortality rate, recovery from brucellosis is slow, and the illness can cause prolonged inactivity, with domestic and economic consequences.
- d) Pasteurization of all milk products before consumption is sufficient to prevent non-occupational animal-to-human transmission of brucellosis
- e) In brucellosis the laryngeal muscles are involved early and this is a life-threatening event as complete airway obstruction may ensue

218. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) Because the clinical picture of brucellosis is not distinctive, the diagnosis must be based on a history of potential exposure, a presentation consistent with the disease, and supporting laboratory findings.
- b) In brucellosis the incubation period varies from 1 week to several months, and the onset of fever and other symptoms may be abrupt or insidious
- c) In brucellosis nonspecific maculopapular rashes and other skin manifestations are uncommon and are rarely noticed
- d) Brucellosis resulting from the bite of a rat or another animal is very frequent.
- e) The distinctive clinical syndrome of brucellosis consists of symmetric cranial nerve palsies followed by symmetric ascending flaccid paralysis

219. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) In the treatment of brucellosis two preparations are available: human *brucella* immune globulin and equine antitoxin
- b) Liver dysfunction in brucellosis is frequently an independent risk factor for death
- c) Immunity is not solid in brucellosis; patients can be reinfected after repeated exposures.
- d) Acute epididymo-orchitis, prostatitis, inflammation of the seminal vesicles, salpingitis, and pyelonephritis can occur in brucellosis
- e) The presentation of brucellosis often fits the patterns of long-lasting fever, misery, and low-back or hip pain in an older man.

220. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) In brucellosis the commonest initial symptoms are trismus, muscle pain and stiffness, back pain, and difficulty swallowing
- b) In brucellosis results of routine biochemical assays are usually within normal limits, although serum levels of hepatic enzymes and bilirubin may be elevated.
- c) In brucellosis in addition to experiencing fever and sweats, patients become increasingly apathetic and fatigued; lose appetite and weight; and have nonspecific myalgia, headache, and chills
- d) Left untreated, the fever of brucellosis shows an undulating pattern that persists for weeks before the commencement of an afebrile period that may be followed by relapse.
- e) Brucellosis in pregnant women and neonates can be prevented by maternal immunization during pregnancy

221. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) The brucella is transported within the axon and across synaptic junctions until it reaches the CNS
- b) Brucellosis is an acute disease manifested by skeletal muscle paralysis and autonomic nervous system disturbance
- c) The presentation of brucellosis often fits the patterns of fever and acute monoarthritis, typically of the hip or knee, in a young child
- d) In brucellosis vertebral destruction or impingement on the spinal cord is rare and usually suggests tuberculosis
- e) In brucellosis about one-quarter of patients have a dry cough, usually with few changes visible on the chest x-ray

222. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) In brucellosis septic arthritis in brucellosis progresses slowly, starting with small pericapsular erosions.
- b) In brucellosis neurologic involvement is common, with depression and lethargy
- c) Cranial nerve palsies are the presenting manifestations of brucellosis that typically cause patients to seek medical care
- d) In brucellosis complex or focal disease necessitates 3 months of antibiotic therapy
- e) Once in a suitable anaerobic environment, the Brucella organisms grow, multiply, and release toxin

223. Capitol: brucellosis **Mod de punctare:** A3Indicate the correct answers:

- a) The natural course of brucellosis never ends in chronic disease
- b) The clinical manifestations of brucellosis occur only after brucella has reached presynaptic inhibitory nerves
- c) In brucellosis biopsied samples of tissues such as lymph node or liver may show noncaseating granulomas without acid/alcohol-fast bacilli
- d) Isolation of brucellae from blood, CSF, bone marrow, or joint fluid or from a tissue aspirate or biopsy sample is definitive, and successful in 50-70% of cases, but duplicate cultures should be incubated for up to 6 weeks
- e) In brucellosis more commonly involves the lumbar and low thoracic vertebrae than the cervical and high thoracic spine.

224. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) In brucellosis the local tissue response may include granuloma formation with or without necrosis and caseation, abscesses may also develop, especially in chronic localized infection

- b) Brucellosis is a zoonosis whose occurrence is closely related to its prevalence in wild animals
- c) Brucellae grow anaerobically on peptone-based medium incubated at 37°C
- d) Cases of brucellosis in animals and humans is not necessary to be reported to the appropriate public health authorities.
- e) Brucella process is usually localized to the apical and posterior segments of the upper lungs lobes, where the substantially higher mean oxygen tension favors Brucella growth.

225. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Brucellosis is classified as pulmonary, extrapulmonary, or both
- b) The mainstays of brucella therapy are timely treatment with antitoxin, which may limit the extent of paralysis
- c) Brucella organisms can survive for 2 months in soft cheeses made from goat's or sheep's milk; for 6 weeks in contaminated dry soil; and for 6 months in liquid manure kept under cool dark conditions.
- d) Person-to-person transmission of brucellosis was often described.
- e) Brucella toxin production, requires spore germination, which occurs only in anaerobic atmosphere

226. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Person-to-person transmission of brucellosis is frequent
- b) Hemoptysis develops in 20-30% of Brucella cases
- c) A presumptive diagnosis of brucellosis is commonly based on the finding of AFB on microscopic examination of a diagnostic specimen
- d) Patients are usually afebrile in acute brucellosis
- e) The Brucella organisms are sensitive to sunlight, ionizing radiation, and moderate heat; they are killed by boiling and pasteurization but are resistant to freezing and drying

227. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Brucella is most commonly transmitted from a person with infectious pulmonary brucellosis to others by droplet nuclei, which are aerosolized by coughing, sneezing, or speaking
- b) Resistance to drying renders brucellae stable in aerosol form, facilitating airborne transmission
- c) All forms of brucellosis may progress to respiratory compromise and death
- d) Wound brucellosis is due to wound colonization by toxigenic clostridia with in situ toxin production
- e) Brucellosis is a globally important zoonotic disease caused by spirochetes

228. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) General sanitation approaches (e.g., rodent control) and avoidance of swimming in potentially contaminated places (e.g., for recreational use) are recommended in preventing brucellosis.
- b) In wound brucellosis, material from abscesses should be collected in anaerobic culture tubes for testing at public health laboratories
- c) Brucellosis is a demyelinating polyneuropathy that presents most often as an ascending paralysis
- d) In brucellosis constipation due to paralytic ileus is nearly universal, and urinary retention is also common
- e) The presentation of brucellosis often fits the patterns of febrile illness that resembles typhoid but is less severe

229. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Cranial nerve involvement in brucellosis always produces diplopia, dysarthria, dysphonia, and/or dysphagia.

- b) In brucellosis the patients are generally disoriented
- c) The universally accepted method for confirmation of brucellosis is the mouse bioassay
- d) The fever of brucellosis is associated with musculoskeletal symptoms and signs in about one-half of all patients.
- e) The cornerstones of treatment for acute brucellosis are immediate administration of albumin or fresh frozen plasma

230. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Brucellosis is caused by the toxin's inhibition of acetylcholine release at the neuromuscular junction through an enzymatic mechanism.
- b) In brucellosis individual joints that are most commonly affected by septic arthritis are the knee, hip, sacroiliac, shoulder, and sternoclavicular joints; the pattern may be one of monoarthritis or polyarthritis
- c) Brucella replicates most efficiently in resting CD4+ T cells
- d) Oral lesions, including thrush, hairy leukoplakia, and aphthous ulcers are often seen in patients with untreated brucellosis
- e) The clinician must not report a suspected case of brucellosis to the state health department, because an initiation of an epidemiologic investigation is useless

231. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) A high incidence of brucellosis correlates with lack of access to clean drinking water.
- b) The most infectious patients with brucellosis have cavitory pulmonary disease
- c) Brucellosis is endemic worldwide, with epidemics occurring every 3-5 years in unvaccinated populations
- d) Brucella is a gram-negative aerobic diplococcus that causes disease after transmission to a susceptible individual
- e) Diagnostic clues in brucellosis include travel to an endemic area, consumption of unpasteurized milk products (including soft cheeses), contact with animals, and-in an endemic setting-a history of similar illness in the family.

232. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Almost 30-50% of patients with acute brucellosis are present with a meningitis syndrome alone
- b) Brucellosis is an acute diarrheal disease that can, in a matter of hours, result in profound, rapidly progressive dehydration and death
- c) In brucellosis the radiologic features of bony disease develop late and are much more subtle than those of tuberculosis or septic arthritis of other etiologies, with less bone and joint destruction.
- d) In brucellosis an incubation period of 2-10 days is followed by the formation of an ulcer at the site of penetration, that may persist for several months
- e) In oculoglandular brucellosis the inflamed conjunctiva is painful, with numerous yellowish nodules and pinpoint ulcers; corneal perforation always occur

233. Capitol: brucellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Purpura fulminans occurs in severe cases of brucellosis, with multiple large purpuric lesions and signs of peripheral ischemia
- b) The typical primary chancre in brucellosis usually begins as a single painless papule that rapidly becomes eroded and usually becomes indurated, with a characteristic cartilaginous consistency
- c) Erythema migrans is the first clinical manifestation in brucellosis
- d) Patients should ideally be followed clinically for up to 2 years to detect relapse in brucellosis
- e) The presence of a pharyngeal pseudomembrane or an extensive exudate should prompt

consideration of acute brucellosis

234. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) The degranulation and release of toxic substances by neutrophils may result in damage to the intestinal mucosa, causing the inflammatory diarrhea observed with nontyphoidal gastroenteritis.
- b) Unlike *S. typhi* and *S. paratyphi*, whose only reservoir is humans, nontyphoidal salmonellosis can be acquired from multiple animal reservoirs.
- c) Rarely, nontyphoidal salmonellosis causes pseudoappendicitis or an illness that mimics inflammatory bowel disease.
- d) Neurologic findings in salmonellosis nontyphi include aseptic meningitis
- e) Transmission of *S. enteritidis* via contaminated eggs cannot be prevented by cooking eggs until the yolk is solidified and through pasteurization of egg products.

235. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) Rates of morbidity and mortality associated with nontyphoidal salmonellosis are highest among the elderly, infants, immunocompromised individuals.
- b) Persons who develop chronic carriage of nontyphoidal salmonellosis should receive a prolonged antibiotic course, as described above for chronic carriage of *S. typhi*
- c) Antibiotics should be used routinely to treat uncomplicated nontyphoidal salmonella gastroenteritis
- d) The pattern of inflammation in salmonellosis is characteristic of allergic diseases
- e) In nontyphoidal salmonellosis stool cultures may remain positive for 4-5 weeks after infection and-in rare cases of chronic carriage (<1%)-for >1 year.

236. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) Transmission of nontyphoidal salmonellosis is most commonly associated with animal food products, especially eggs, poultry, undercooked ground meat, dairy products, fresh produce contaminated with animal waste.
- b) Infection with nontyphoidal salmonellosis most often results in gastroenteritis indistinguishable from that caused by other enteric pathogens
- c) Tests for the presence of *Salmonella* require upper gastrointestinal endoscopy and are based on the analysis of gastric biopsy specimens
- d) Chronic neurologic involvement may become apparent from months to several years after the onset of *Salmonella* nontyphi infection
- e) Antibiotic treatment usually is not recommended in noncomplicated nontyphoidal salmonellosis and may prolong fecal carriage.

237. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) Neonates, the elderly, and immunosuppressed patients with nontyphoidal salmonella gastroenteritis are especially susceptible to dehydration and dissemination and may require hospitalization and antibiotic therapy
- b) Increasing antibiotic resistance in nontyphoidal salmonellosis species is a global problem and has been linked to the widespread use of antimicrobial agents in food animals and especially in animal feed.
- c) Skin abnormalities in nontyphoid salmonellosis include vesicle rash and petechiae
- d) *S. enteritidis* infection of the ovaries and upper oviduct tissue of hens results in contamination of egg contents before shell deposition.

e) Biochemical, hematologic, and urinalysis findings in nontyphoid salmonellosis are very specific, and always suggest the diagnosis

238. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) Reactive arthritis (Reiter's syndrome) can follow nontyphoidal salmonella gastroenteritis and is seen most frequently in persons with the HLA-B27 histocompatibility antigen
- b) In uncomplicated nontyphoidal salmonella gastroenteritis the symptoms are usually self-limited, and the duration of fever and diarrhea is not significantly decreased by antibiotic therapy.
- c) Neurologic findings in nontyphoid salmonellosis include aseptic meningitis
- d) Intraabdominal infections due to nontyphoidal salmonellosis are rare and usually manifest as hepatic or splenic abscesses or as cholecystitis
- e) A more likely possibility is that nontyphoid salmonella gastroenteritis induce endothelial cell dysfunction with organ dysfunction and systemic disease

239. Capitol: salmonnontyphi **Mod de punctare:** A3Indicate the correct answers:

- a) The natural course of nontyphoid salmonellosis usually ends in chronic disease
- b) The diagnosis of nontyphoidal salmonella infection is based on isolation of the organism from freshly passed stool or from blood or another ordinarily sterile body fluid.
- c) Because of the increasing prevalence of antibiotic resistance, empirical therapy for life-threatening nontyphoidal salmonella bacteremia or focal NTS infection should include a third-generation cephalosporin or a fluoroquinolone
- d) Nausea, vomiting, and diarrhea occur 6-48 h after the ingestion of contaminated food or water with nontyphoidal salmonella
- e) Antibiotics should be used routinely to treat uncomplicated nontyphoidal salmonella gastroenteritis

240. Capitol: salmonnontyphi **Mod de punctare:** A1Indicate the correct answer:

- a) In nontyphoidal salmonellosis diarrheal stools are usually loose, nonbloody, and of moderate volume. However, large-volume watery stools, bloody stools, or symptoms of dysentery may occur.
- b) Most patients with nontyphoid salmonellosis treated with ampicillin develop a macular rash
- c) Person-to-person transmission of salmonellosis was never described.
- d) All forms of nontyphoid gastroenteritis may progress to respiratory compromise and death
- e) The spores of nontyphoidal salmonella survive environmental conditions and ordinary cooking procedures

241. Capitol: salmonnontyphi **Mod de punctare:** A1Indicate the correct answer:

- a) Most nontyphoidal salmonellosis cases are sporadic; outbreaks are typically not characteristic
- b) Standard blood work and radiologic studies are useful in diagnosing nontyphoidal salmonellosis.
- c) In nontyphoidal salmonellosis diarrhea resolves within 3-7 days and fever within 72 h.
- d) Nontyphoidal salmonellosis is a demyelinating polyneuropathy that presents most often as an ascending paralysis
- e) Patients often exhibit sensory or cognitive deficits in nontyphoidal salmonellosis

242. Capitol: salmonnontyphi **Mod de punctare:** A1Indicate the correct answer:

- a) Nontyphoidal salmonellosis are treated with equine-source antitoxin
- b) The universally accepted method for confirmation of nontyphoidal salmonellosis is the mouse bioassay
- c) Nontyphoidal salmonella toxin production, requires spore germination, which occurs only in anaerobic atmosphere

d) Endovascular nontyphoidal salmonella infection should be suspected in high-grade or persistent bacteremia, especially with preexisting valvular heart disease, atherosclerotic vascular disease, prosthetic vascular graft, or aortic aneurysm.

e) Gastroenteritis caused by nontyphoidal salmonellosis is usually not self-limited, and always required antibiotic treatment

243. Capitol: salmonnontyphi **Mod de punctare:** A1Indicate the correct answer:

a) Patients often experience abdominal cramping and fever (38-39°C; 100.5-102.2°F) in nontyphoidal salmonellosis

b) All forms of nontyphoidal gastrointestinal salmonellosis progress to acute renal failure and death

c) Cranial nerve palsies are the presenting manifestations of nontyphoidal salmonellosis that typically cause patients to seek medical care

d) Nontyphoidal salmonellosis can be prevented by vaccination

e) The natural course of nontyphoidal gastrointestinal salmonellosis can ends in chronic disease

244. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Bacteria of the genus Salmonella are highly adapted for growth in both humans and animals and cause a wide spectrum of disease

b) The 1-5% of patients who develop chronic carriage of Salmonella can be treated for 4-6 weeks with an appropriate oral antibiotic

c) Signs and symptoms in typhoidal Salmonella probably result from secretion of cytokines by macrophages and epithelial cells in response to bacterial products that are recognized by innate immune receptors when a critical number of organisms have replicated.

d) Colonization with typhoidal Salmonella is the main risk factor for peptic ulceration as well as for gastric adenocarcinoma

e) Salmonella typhi is an acute diarrheal disease that can, in a matter of hours, result in profound, rapidly progressive dehydration and death.

245. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Tests for the presence of Salmonella typhi require upper gastrointestinal endoscopy and are based on the analysis of gastric biopsy specimens

b) Enteric (typhoid) fever is a systemic disease characterized by fever and abdominal pain and caused by dissemination of S. typhi or S. paratyphi.

c) During the several weeks after initial colonization/infection with S. typhi and S. paratyphi there can be marked enlargement and necrosis of the Peyer's patches

d) The growth of serotypes S. typhi and S. paratyphi is restricted to human hosts, in whom these organisms cause enteric (typhoid) fever.

e) The stool in salmonella typhi has a characteristic appearance: a nonbilious, gray, slightly cloudy fluid with flecks of mucus, no blood, and a somewhat fishy, inoffensive odor, it has been called "rice-water" stool

246. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Salmonellae are gram-negative, non-spore-forming, facultatively anaerobic, within the family Enterobacteriaceae

b) The development of hepatosplenomegaly is likely to be related to the recruitment of mononuclear cells and the development of a specific acquired cell-mediated immune response to S. typhi colonization

c) Typhoidal Salmonella can colonize the gastrointestinal tracts of a broad range of animals,

including mammals, reptiles, birds

d) In endemic regions, enteric fever is more common in urban than rural areas and among young children and adolescents

e) *Salmonella typhi* constitutes the most ancient lineage of spirochetes pathogenic for humans and the only spirochetes that can live both in animals and free in the environment.

247. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Physical examination in salmonellosis typhi may include conjunctival suffusion, petechial rash, jaundice and acute kidney injury

b) Salmonellosis typhi is a zoonotic disease

c) *S. typhi* and *S. paratyphi* was clearly defined pathologically as a unique illness on the basis of its association with enlarged Peyer's patches and mesenteric lymph nodes.

d) Conditions that decrease either stomach acidity or intestinal integrity increase susceptibility to *Salmonella* infection.

e) All *Salmonella* infections begin with ingestion of organisms, most commonly in contaminated food or water.

248. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) A high incidence of enteric fever correlates with poor sanitation and lack of access to clean drinking water.

b) Months after the onset of *Salmonella typhi*, 60-80% of patients who have received no antibiotic treatment develop frank arthritis

c) After injection into the human skin, *Salmonella typhi* may migrate outward, producing erythema migrans, and may spread hematogenously or in the lymph to other organs

d) Rose spots in enteric fever make up a faint, salmon-colored, blanching, maculopapular rash located primarily on the trunk and chest, the rash is evident at the end of the first week and resolves without a trace after 2-5 days.

e) Once *S. typhi* and *S. paratyphi* reach the small intestine, they penetrate the mucus layer of the gut and traverse the intestinal layer through phagocytic microfold (M) cells that reside within Peyer's patches.

249. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Despite efficient in vitro killing of *Salmonella*, first- and second-generation cephalosporins as well as aminoglycosides are ineffective in the treatment of clinical infections.

b) Chronic neurologic involvement may become apparent from months to several years after the onset of *Salmonella typhi* infection

c) Once phagocytosed, typhoidal salmonellae disseminate throughout the body in macrophages via the lymphatics and colonize reticuloendothelial tissues (liver, spleen, lymph nodes, and bone marrow).

d) *Salmonella typhi* is usually sexually transmitted and is characterized by episodes of active disease interrupted by periods of latency

e) The incubation period for *S. typhi* averages 10-14 days but ranges from 3-21 days, depending on the inoculum size and the host's health and immune status

250. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) *Salmonella* can be cultured from punch biopsies of rose sports lesions

b) Crowding in poorly ventilated rooms is one of the most important factors in the transmission of *salmonella typhi* infection

c) Neurologic manifestations in enteric fever occur in 2-40% of patients and include meningitis,

neuritis, and neuropsychiatric symptoms (described as "muttering delirium" or "coma vigil"), with picking at bedclothes or imaginary objects.

d) After crossing the epithelial layer of the small intestine, *S. typhi* and *S. paratyphi*, which cause enteric (typhoid) fever, are phagocytosed by macrophages.

e) *Salmonella* are spherical gram-positive bacteria

251. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) The faintness of the rash in enteric fever makes it difficult to detect in highly pigmented patients.

b) The most infectious patients with salmonella typhi have cavitory pulmonary disease

c) *Salmonella typhi* rapidly penetrates intact mucous membranes or microscopic abrasions in skin and enters the lymphatics and blood to produce systemic infection and metastatic foci

d) In enteric fever gastrointestinal bleeding and intestinal perforation most commonly occur in the 3-4 weeks of illness and result from hyperplasia, ulceration, and necrosis of the ileocecal Peyer's patches at the initial site of *Salmonella* infiltration

e) *S. typhi* and *S. paratyphi* survive the antimicrobial environment of the macrophage by sensing environmental signals that trigger alterations in regulatory systems of the phagocytosed bacteria.

252. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) In salmonellosis typhi the typical primary chancre usually begins as a single painless skin papule that rapidly becomes eroded and usually becomes indurated and base of the ulcer

b) In enteric fever up to 10% of patients develop mild relapse, usually within 2-3 weeks of fever resolution and in association with the same strain type and susceptibility profile.

c) For treatment of enteric fever, fluoroquinolones, ceftriaxone, cefotaxime, oral cefixime, azithromycin, chloramphenicol (in susceptible area) are effective

d) The recruitment of additional mononuclear cells and lymphocytes to Peyer's patches can result in marked enlargement and necrosis of the Peyer's patches, which may be mediated by bacterial products that promote cell death as well as the inflammatory response.

e) *Salmonella paratyphi* are aerosolized by coughing, sneezing, or speaking

253. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Early physical findings of enteric fever include rash ("rose spots"), hepatosplenomegaly, epistaxis, and relative bradycardia at the peak of high fever.

b) The distinctive clinical syndrome of *Salmonella typhi* consists of symmetric cranial nerve palsies followed by symmetric descending flaccid paralysis that may progress to respiratory arrest and death

c) *Salmonella paratyphi* colonize the human nasopharynx from an early age

d) In contrast to other *Salmonella* serotypes, the etiologic agents of enteric fever-*S. typhi* and *S. paratyphi* serotypes A, B, and C-have no known hosts other than humans

e) The initial choice of antibiotics depends on the susceptibility of the *S. typhi* and *S. paratyphi* strains in the area of residence or travel

254. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) In 15-25% of enteric fever cases, leukopenia and neutropenia are detectable

b) Food-borne or waterborne transmission results from fecal contamination by ill or asymptomatic chronic carriers with *S. typhi* or *S. paratyphi*

c) The development of severe disease in enteric fever depends on host factors (immunosuppression, antacid therapy, previous exposure, and vaccination), strain virulence and inoculum, and choice of antibiotic therapy

d) Salmonellosis typhi should be considered in patients who have severe pharyngitis, particularly

with difficulty swallowing, respiratory compromise

e) Wound salmonellosis is caused by contamination of wounds with Salmonella spores, subsequent spore germination, and toxin production in the anaerobic milieu of an abscess

255. Capitol: salmonela typhi **Mod de punctare:** A3Indicate the correct answers:

a) Cranial nerve involvement, which almost always marks the onset of symptoms of salmonellosis typhi, usually produces diplopia, dysarthria, dysphonia, and/or dysphagia

b) For enteric fever therapy should be administered for at least 10 days after fever resolution.

c) The definitive diagnosis of enteric fever requires the isolation of S. typhi or S. paratyphi from blood, bone marrow, other sterile sites, rose spots, stool, or intestinal secretions

d) Person-to-person transmission of salmonella typhi has not been described

e) In enteric fever leukocytosis is more common among children, during the first 10 days of illness, and in cases complicated by intestinal perforation or secondary infection

256. Capitol: salmonela typhi **Mod de punctare:** A1Indicate the correct answer:

a) The recruitment of additional mononuclear cells and lymphocytes to Peyer's patches can result in marked enlargement and necrosis of the Peyer's patches, which may be mediated by bacterial products that promote cell death as well as the inflammatory response.

b) All forms of salmonellosis manifest as a distinct clinical syndrome of symmetric cranial nerve palsies followed by descending symmetric flaccid paralysis of voluntary muscles

c) Fever develops in a minority of cases with salmonellosis typhi

d) Typhoidal salmonellosis is endemic worldwide, with epidemics occurring every 3-5 years in unvaccinated populations

e) Salmonella are organisms that require reduced oxygen tension for growth, failing to grow on the surface of solid media in 10% CO₂ in air.

257. Capitol: salmonela typhi **Mod de punctare:** A1Indicate the correct answer:

a) The skin lesions of salmonella typhi consist of one or a few hypopigmented macules or plaques that are hypesthetic

b) In contrast to typhoid fever, which is characterized by an infiltration of mononuclear cells into the small-bowel mucosa, NTS gastroenteritis is characterized by massive polymorphonuclear leukocyte (PMN) infiltration into both the large- and small-bowel mucosa

c) The incubation period prior to manifestation of clinical disease of salmonella typhi can vary between 2 and 40 years, although it is generally 5-7 years in duration

d) The route of transmission of Salmonella typhi remains uncertain, and transmission routes may in fact be multiple

e) Salmonellosis paratyphi usually presents clinically as chronic meningoencephalitis

258. Capitol: salmonela typhi **Mod de punctare:** A1Indicate the correct answer:

a) Jaundice; CNS involvement; petechiae on the trunk, extremities, and mucous membranes; epistaxis; and blood-tinged sputum are more likely in salmonellosis typhi infection

b) In salmonellosis typhi children are most likely to present with cervical or axillary buboes.

c) Rare complications in enteric fever include toxic shock, hematophagocytic syndrome, hepatic and splenic abscesses and granulomas, endocarditis, pyelonephritis, severe pneumonia, arthritis, osteomyelitis.

d) Salmonella typhi is primarily a disease of wild animals and persists in contaminated environments, ectoparasites, and animal carriers

e) Skin lesions are common in patients with disseminated salmonellosis and include vesicles or

tumor-like lesions.

259. Capitol: salmonella typhi **Mod de punctare:** A1Indicate the correct answer:

- a) Salmonella typhi transmission can be attributable to ingestion of either sporulated oocysts from contaminated soil, food, or water or bradyzoites from undercooked meat.
- b) Acute salmonella typhi infection acquired after birth may be asymptomatic but is thought to result in the lifelong chronic persistence of cysts in the host's tissues.
- c) Up to half of salmonella typhi infections are asymptomatic or lead to nonspecific respiratory symptoms.
- d) Since the clinical presentation of enteric fever is relatively nonspecific, the diagnosis needs to be considered in any febrile traveler returning from a developing region.
- e) Colonization with salmonella typhi induces a tissue response in the stomach, chronic superficial gastritis, which includes infiltration of the mucosa by both mononuclear and polymorphonuclear cells.

260. Capitol: salmonella typhi **Mod de punctare:** A1Indicate the correct answer:

- a) Plantar ulceration, particularly at the metatarsal heads, is probably the most frequent complication of salmonella paratyphi infection
- b) Salmonella typhi disease is characterized by combinations of jaundice, acute kidney injury, hypotension, and hemorrhage-most commonly involving the lungs
- c) The incubation period in salmonella typhi infection averages 30-90 days
- d) Salmonella organisms taken up by macrophages and other cells can establish chronic persistent intracellular infections
- e) In typhoid salmonellosis the most prominent symptom is prolonged fever (38.8°-40.5°C; 101.8°-104.9°F), which can continue for up to 4 weeks if untreated

261. Capitol: salmonella typhi **Mod de punctare:** A1Indicate the correct answer:

- a) In salmonellosis typhi an incubation period is followed by the formation of an ulcer at the site of penetration, with local inflammation, the ulcer may persist for several months.
- b) Salmonella typhi cause watery noninflammatory diarrhea by acting directly on secretory mechanisms in the intestinal mucosa
- c) In enteric fever 1-4% develop chronic asymptomatic carriage, shedding S. typhi in either urine or stool for >1 year
- d) In salmonella typhi infection fever is not responsive to antibiotic therapy
- e) Left untreated, the fever of salmonella typhi shows an undulating pattern that persists for more than 8 weeks before the commencement of an afebrile period that may be followed by relapse.

262. Capitol: salmonella typhi **Mod de punctare:** A1Indicate the correct answer:

- a) The predominant form of salmonella typhi infection in children involves cervical or posterior auricular lymphadenopathy
- b) The presentation of salmonella typhi often fits the patterns of fever and acute monoarthritis, typically of the hip or knee, in a young child
- c) A history of injection drug use, even in the remote past, is of great importance in assessing the risk for salmonella typhi infection
- d) Salmonella typhi has been clearly linked with increased risks for cancer at a number of different tissue sites
- e) In enteric fever one of the nonspecific laboratory findings include moderately elevated liver function tests

263. Capitol: salmonella typhi **Mod de punctare:** A1Indicate the correct answer:

- a) Bone marrow culture in enteric fever is 55-90% sensitive, and, unlike that of blood culture, its yield is not reduced by up to 5 days of prior antibiotic therapy.
- b) Essentially all Salmonella typhi-colonized persons have gastric tissue responses, but fewer than 15% develop associated illnesses such as peptic ulceration, gastric adenocarcinoma, or gastric lymphoma
- c) Generally in salmonellosis typhi there is one painful and erythematous bubo with surrounding perianglionic edema.
- d) Salmonella typhi is one of the most common chronic diseases worldwide
- e) In salmonella typhi infection there is inflammation in the respiratory mucosa from the trachea to terminal bronchioles, but with a predominance in the bronchi

264. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

- a) Tularemia is primarily a disease of wild animals and persists in contaminated environments, ectoparasites, and animal carriers
- b) F. tularensis is a class A bioterrorism agent
- c) In ulceroglandular tularemia, the ulcer is erythematous, indurated, and nonhealing, with a punched-out appearance that lasts 1-3 weeks.
- d) The natural course of tularemia always ends in chronic disease
- e) Tularemia cultures become positive during the first days and therefore always can guide clinical care

265. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

- a) In tularemia antitoxin should be given early in an attempt to deactivate any circulating tularemia toxin and prevent its uptake into the nervous system
- b) Tularemia is a zoonosis whose occurrence is closely related to its prevalence in domesticated animals
- c) Culture and isolation of F. tularensis are difficult
- d) In tularemia the lymph nodes at the site of penetration enlarge and may become necrotic and suppurative.
- e) Human infection with tularemia is incidental and results from interaction with biting or blood-sucking insects, contact with wild/domestic animals, ingestion of contaminated water/food, or inhalation of infective aerosols

266. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

- a) Tularemia commonly occurs where the vaccination coverage rate is high
- b) Dairy products, especially soft cheeses, unpasteurized milk, and ice cream, are the most frequently implicated sources of infection in Tularemia
- c) The clinical severity of gastrointestinal tularemia varies from mild, unexplained, persistent diarrhea with no other symptoms to a fulminant, fatal disease.
- d) In oculoglandular tularemia painful preauricular lymphadenopathy is unique to tularemia and distinguishes it from tuberculosis, sporotrichosis, and syphilis
- e) Francisella tularensis is a small, gram-negative, pleomorphic, nonmotile, non-spore-forming bacillus, bipolar staining results in a coccoid appearance

267. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

- a) A wide range of approaches to vaccine development are being evaluated, but no vaccine against tularemia is yet licensed.
- b) In oropharyngeal and GI tularemia oral inoculation may result in acute, exudative, or

membranous pharyngitis associated with cervical lymphadenopathy or in ulcerative intestinal lesions

c) In tularemia human-to-human transmission occur frequently

d) Tularemia is characterized by various clinical syndromes, the most common of which consists of an ulcerative lesion at the site of inoculation, with regional lymphadenopathy and lymphadenitis

e) In developed countries, tularemia is seen occasionally in individuals who are incompletely vaccinated

268. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) The mainstays of tularemia therapy are timely treatment with antitoxin, which may limit the extent of paralysis

b) In GI tularemia ulcerative intestinal lesions is associated with mesenteric lymphadenopathy, diarrhea, abdominal pain, nausea, vomiting, and gastrointestinal bleeding.

c) Cases of tularemia in animals and humans is not necessary to be reported to the appropriate public health authorities

d) In tularemia the histopathologic findings can be quite similar to those in tuberculosis, although tularemia develops more rapidly.

e) Animal reservoirs of tularemia include wild rabbits, squirrels, birds, sheep, beavers, muskrats, and domestic dogs and cats.

269. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) Pulmonary tularemia can result from inhalation of an infectious aerosol or can spread to the lungs and pleura via bacteremia

b) The universally accepted method for confirmation of tularemia is isolation of *F.tularensis* directly from infected ulcer scrapings, lymph-node biopsy specimens, and blood cultures.

c) Tularemia is a globally important zoonotic disease caused by spirochetes

d) Tularemia often starts with a sudden onset of fever, chills, headache, and generalized myalgias and arthralgias

e) Conjunctival inoculation of *F. tularensis* can result in infection of the eye, with regional lymph node enlargement (preauricular lymphadenopathy, Parinaud's complex).

270. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) Tularemia is a demyelinating polyneuropathy that presents most often as an ascending paralysis

b) High continuous fevers, signs of sepsis, and severe headache are common in typhoidal tularemia, the patient may be delirious and may develop prostration and shock.

c) A presumptive diagnosis of brucellosis is commonly based on the finding of AFB on microscopic examination of a diagnostic specimen

d) Patients with pulmonary tularemia usually have a nonproductive cough and may have dyspnea or pleuritic chest pain.

e) In ulceroglandular tularemia the affected lymph nodes may become fluctuant and drain spontaneously, but the condition usually resolves with effective treatment.

271. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) In oculoglandular tularemia the inflamed conjunctiva is painful, with numerous yellowish nodules and pinpoint ulcers.

b) *F.tularensis* replicates most efficiently in resting CD4+ T cells

c) In the acute phase of tularemia, the primary organs affected (skin, lymph nodes, liver, and spleen) include areas of focal necrosis, which are initially surrounded by polymorphonuclear leukocytes

d) Tularemia is caused by the toxin's inhibition of acetylcholine release at the neuromuscular junction through an enzymatic mechanism

e) Lifelong immunity usually follows tularemia.

272. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) F. tularensis after inoculation spread to regional lymph nodes, producing lymphadenopathy (buboes).

b) In pulmonary tularemia, mediastinal adenopathy may be evident, whereas patients with oropharyngeal tularemia develop cervical lymphadenopathy

c) F.tularensis is a gram-negative aerobic diplococcus that causes disease after transmission to a susceptible individual

d) In treated tularemia skin lesions and lymph nodes may take 1-2 weeks to heal, but late lymph-node suppuration (sterile necrotic tissue), however, occurs in 40% of children, regardless of the treatment received

e) Tularemia is endemic worldwide, with epidemics occurring every 3-5 years in unvaccinated populations

273. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) Pneumonia due to F. tularensis presents as variable parenchymal infiltrates that are responsive to treatment with -lactam antibiotics.

b) Person-to-person transmission is frequent in tularemia

c) Since doxycycline is bacteriostatic against F. tularensis, there is a risk of relapse if the patient is not treated for a long enough period (at least 14 days)

d) Systemic manifestations in tularemia, including pneumonia, typhoidal tularemia, meningitis, and fever without localizing findings, pose a greater diagnostic challenge.

e) In ulceroglandular tularemia the ulcer gradually develops a black base, and simultaneously the regional lymph nodes become tender and severely enlarged

274. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) In tularemia the commonest initial symptoms are trismus, muscle pain and stiffness, back pain, and difficulty swallowing

b) F. tularensis infection has been also associated with meningitis, pericarditis, hepatitis, peritonitis, endocarditis, osteomyelitis, and sepsis and septic shock with rhabdomyolysis and acute renal failure.

c) Ticks and wild rabbits are the source for most human cases in endemic areas of tularemia

d) As a facultatively intracellular bacterium, F. tularensis can parasitize both phagocytic and nonphagocytic host cells and can survive intracellularly for prolonged periods

e) In the treatment of tularemia two preparations are available: human tularemia immune globulin and equine antitoxin

275. Capitol: tularemia **Mod de punctare:** A3Indicate the correct answers:

a) In oropharyngeal tularemia infected tonsils become enlarged and develop a yellowish-white pseudomembrane, which can be confused with that of diphtheria.

b) In oculoglandular tularemia purulent conjunctivitis with regional lymphadenopathy (preauricular, submandibular, or cervical) is evident

c) In tularemia vertebral destruction or impingement on the spinal cord is frequent and usually suggests tularemia infection

d) In pulmonary tularemia roentgenograms usually reveal bilateral patchy infiltrates, lobar parenchymal infiltrates, cavitary lesions, pleural effusions, empyema may develop.

e) Tularemia in pregnant women and neonates can be prevented by maternal immunization during pregnancy

276. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

a) The *F.tularensis* is transported within the axon and across synaptic junctions until it reaches the CNS

b) After inoculation into the skin, *F. tularensis* multiplies locally; within 2-5 days (range, 1-10 days), it produces an erythematous, tender, or pruritic papule that rapidly enlarges and forms an ulcer.

c) Once in a suitable anaerobic environment, the *F.tularensis* organisms grow, multiply, and release toxin

d) Most clinical laboratories will not attempt to culture *F. tularensis* because of the infectivity of the organism from the culture media and the consequent risk of a laboratory-acquired infection

e) In ulceroglandular tularemia the papule may begin as an erythematous lesion that is tender or pruritic; it evolves over several days into an ulcer with sharply demarcated edges and a yellow exudate.

277. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

a) Almost 30-50% of patients with acute tularemia are present with a meningitis syndrome alone

b) In nature, *F. tularensis* is a hardy organism that persists for weeks or months in mud, water, and decaying animal carcasses.

c) A high incidence of tularemia correlates with lack of access to clean drinking water.

d) Ulceroglandular and glandular forms of tularemia account for 75-85% of cases

e) When patients in endemic areas present with fever, chronic ulcerative skin lesions, large tender lymph nodes, a diagnosis of tularemia should be made presumptively

278. Capitol: tularemia Mod de punctare: A3Indicate the correct answers:

a) In tularemia an incubation period of 2-10 days is followed by the formation of an ulcer at the site of penetration, with local inflammation

b) Erythema migrans is the first clinical manifestation in tularemia

c) In tularemia the most common portal of entry is through skin or mucous membranes, either through the bite of arthropods, or other animals, or via inapparent abrasions, and inhalation or ingestion

d) Tularemia is an acute diarrheal disease that can, in a matter of hours, result in profound, rapidly progressive dehydration and death

e) Tularemia must be considered in the differential diagnosis of atypical pneumonia in a patient with a history of travel to an endemic area.

279. Capitol: tularemia Mod de punctare: A1Indicate the correct answer:

a) Aminoglycosides, tetracyclines, chloramphenicol, rifampin, fluoroquinolones, gentamicin are approved for the treatment of tularemia.

b) The principal determinants of the epidemiology of tularemia are the number (density), the human-biting habits, and the longevity of the anopheline mosquito vectors

c) Amphotericin B is currently used as a first-line drug in the treatment of tularemia

d) Transient pulmonary infiltrates are apparent on chest x-rays of about one-half of patients with ulceroglandular tularemia.

e) Tularemia infections are self-limited and always resolve without specific therapy.

280. Capitol: tularemia Mod de punctare: A1Indicate the correct answer:

a) After invading an erythrocyte, the growing *F.tularensis* progressively consumes and degrades

intracellular proteins, principally hemoglobin

b) The rash of tularemia begins as erythematous macules behind the ears and on the neck; progresses to involve the face, trunk, and arms, with involvement of the legs and feet by the end of the third day.

c) In acute tularemia the symptoms usually persist for more than 6 months and gradually subside

d) Buboes in tularemia are always bilateral, adherent, extremely tender and painful, can vary from 2-10 cm in size, with erythema and increased warmth of the overlying skin.

e) A wide variety of antibiotics, including all β -lactam antibiotics and the newer cephalosporins, are ineffective for the treatment of tularemia.

281. Capitol: tularemia Mod de punctare: A1 Indicate the correct answer:

a) *F. tularensis* occur in two forms: extracellular, flagellate promastigotes in the sandfly vector and intracellular, nonflagellate amastigotes

b) Koplik's spots are especially helpful in the diagnosis of tularemia because they appear early and are pathognomonic

c) Humans are the only natural hosts for *F. tularensis*

d) The clinical manifestations of tularemia have been divided into various syndromes: ulceroglandular, glandular, pulmonary, oropharyngeal, oculoglandular, typhoidal, other manifestations

e) There is no specific therapy for tularemia

282. Capitol: tularemia Mod de punctare: A1 Indicate the correct answer:

a) Most cases of tularemia with meningeal involvement closely resemble pyogenic meningitis and usually develop in the first day of the disease

b) Hematogenous dissemination to the lungs occurs in 10-15% of cases of ulceroglandular tularemia and in about half of cases of typhoidal tularemia.

c) Tularemia parotitis-acute-onset unilateral or bilateral swelling of the parotid or other salivary glands lasting >2 days without another apparent cause-develops in 70-90% of tularemia infections

d) Clinical symptoms of tularemia arise from the successive phases of parasite enteric invasion, larval migration, and muscle encystment

e) Acute laryngotracheobronchitis (croup) can occur during tularemia and may result in airway obstruction, particularly in young children

283. Capitol: tularemia Mod de punctare: A1 Indicate the correct answer:

a) In typhoidal tularemia fever usually develops without apparent skin lesions or lymphadenopathy, but some patients have cervical and mesenteric lymphadenopathy.

b) Orchitis, accompanied by fever, typically occurs during the first week of tularemia, and is the most common manifestation of tularemia infection.

c) Tularemia symptoms are usually mild, lasting 1 to 4 days.

d) Tularemia may rarely cause large-volume cholera-like diarrhea

e) Tularemia is treated only symptomatically with fluids, electrolyte replacement and bland diet.

284. Capitol: tularemia Mod de punctare: A1 Indicate the correct answer:

a) Blood eosinophilia develops in >90% of patients with tularemia and may peak at a level of >50% 2-4 weeks after infection

b) GI tularemia is generally self-limiting, with symptoms typically lasting no longer than 3-7 days.

c) Bilateral posterior cervical adenopathy is most highly suggestive of tularemia infection

d) The level of suspicion of tularemia should be especially high in hunters, trappers, game wardens,

professional landscapers, veterinarians, laboratory workers, and individuals exposed to an insect or another animal vector.

e) Tularemia-related lymphogranulomatosis usually occurs in patients with immunodeficiency

285. Capitol: tularemia **Mod de punctare:** A1 Indicate the correct answer:

a) The larvae of *F. tularensis* invade the liver, lungs, CNS, and other sites, provoking intense local eosinophilic granulomatous responses

b) Hydrophobia is the classical diagnostic manifestation of tularemia

c) The diagnosis of tularemia is most frequently confirmed by serologic investigations (agglutination testing, enzyme-linked immunosorbent assays) or PCR.

d) In tularemia vomiting occurs few hours after the onset of diarrhea, and fever is typically absent

e) *F. tularensis* multiply exclusively in endothelium of the small venous, arterial, and capillary blood vessels

286. Capitol: tularemia **Mod de punctare:** A1 Indicate the correct answer:

a) An eosinophilic granulomatous mass, most commonly in the posterior pole of the retina, develops around the entrapped larva of *F. tularensis*.

b) Hematogenous dissemination to the lungs never occurs in tularemia

c) Ulceroglandular and glandular forms of tularemia account for no more than 1% of cases

d) After inoculation into the skin, *F. tularensis* multiplies locally only in anaerobic conditions

e) If tularemia goes untreated, symptoms usually last 1-4 weeks but may continue for months.

287. Capitol: tularemia **Mod de punctare:** A1 Indicate the correct answer:

a) Clinically, tularemia presents with a vesicular rash in various stages of evolution, low-grade fever

b) Tularemia spores can resist boiling and many disinfectants

c) In tularemia subsequently, granulomas form, with epithelioid cells, lymphocytes, and multinucleated giant cells surrounded by areas of necrosis, that may resemble caseation necrosis and later coalesce to form abscesses.

d) Differential diagnosis of oropharyngeal tularemia includes scarlet fever

e) The most characteristic pathologic finding in tularemia is the Negri body (eosinophilic cytoplasmic inclusions in brain neurons)

288. Capitol: Shigellosis **Mod de punctare:** A3 Indicate the correct answers:

a) *Shigella* is a nonspore-forming, gram-negative bacterium that, unlike *E. coli*, is nonmotile and does not produce gas from sugars, decarboxylate lysine, or hydrolyze arginine.

b) In shigellosis the typical initial manifestations are transient fever, limited watery diarrhea, malaise, and anorexia.

c) The human intestinal tract represents the major reservoir of *Shigella*, which is also found (albeit rarely) in the higher primates.

d) Intestinal perforation, either isolated or complicating toxic megacolon, does not require surgical treatment in shigellosis.

e) For safety reasons, it is better to give antimotility agents in bloody diarrhea.

289. Capitol: Shigellosis **Mod de punctare:** A2 Indicate the correct answers:

a) *Shigella* is a nonspore-forming, gram-negative bacterium that, unlike *E. coli*, is nonmotile and does not produce gas from sugars, decarboxylate lysine, or hydrolyze arginine.

b) In shigellosis the typical initial manifestations are transient fever, limited watery diarrhea, malaise, and anorexia.

c) The human intestinal tract represents the major reservoir of *Shigella*, which is also found (albeit rarely) in the higher primates.

- d) Intestinal perforation, either isolated or complicating toxic megacolon, do not requires surgical treatment in shigellosis.
- e) For safety reasons, it is better to give antimotility agents in bloody diarrhea.

290. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) Infection with shigella most often results in gastroenteritis indistinguishable from that caused by vibrio cholera
- b) In shigellosis the microscopic examination of stool smears shows the presence of low PMN counts in each microscopic field.
- c) Shigellosis typically evolves through four phases: incubation, watery diarrhea, dysentery, and the postinfectious phase.
- d) S.dysenteriae, S. flexneri, S.boydii, and S. sonnei (serogroups A, B, C, and D, respectively) can be differentiated on the basis of biochemical and serologic characteristics.
- e) In impoverished areas, Shigella can be transmitted by flies.

291. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) In schigellosis the typical initial manifestations are long lasting fever, abundant watery non-bloody diarrhea, malaise, and anorexia.
- b) In schigellosis the incubation period usually lasts 1-4 days but may be as long as 8 days.
- c) Recurrences are rare in schigellosis if therapeutic and preventive measures are correctly implemented.
- d) The presence of genes encoding Shiga toxin, a potent cytotoxin, is a major genomic "signatures" of S.dysenteriae type 1.
- e) Shigella is a spore-forming, gram-negative bacterium that is motile.

292. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) The schigella organisms induce apoptosis of subepithelial resident macrophages.
- b) In schigellosis the dysenteric syndrome, manifested by bloody and mucopurulent stools, reflects invasion of the mucosa.
- c) Shigella organisms can be acquired from multiple animal reservoirs
- d) Antibiotic treatment is never recommended in shigellosis
- e) Because excretion of shigellae is greatest in the acute phase of disease, the bacteria are transmitted most efficiently by the fecal-oral route via hand carriage; however, some outbreaks reflect food-borne or waterborne transmission.

293. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) Standard oral rehydration solution are of 245 mOsm/L (sodium, 75 mmol/L; chloride, 65 mmol/L; glucose (anhydrous), 75 mmol/L; potassium, 20 mmol/L; citrate, 10 mmol/L).
- b) Tests for the presence of Shigella require upper gastrointestinal endoscopy and are based on the analysis of gastric biopsy specimens
- c) Shiga toxin produced by S. dysenteriae type 1 increases disease severity
- d) Shigella infection often causes significant dehydration
- e) The high-level infectivity of Shigella is reflected by the very small inoculum required, very high attack rates during outbreaks in day-care centers, by the high rates of secondary cases among family members

294. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) In toxic megacolon the patient presents with abdominal distention and tenderness, with or without

signs of localized or generalized peritonitis.

b) The shigella survive ordinary cooking procedures

c) Unlike most diarrheal syndromes, dysenteric syndromes rarely present with dehydration as a major feature.

d) The natural course of shigellosis usually ends in chronic disease

e) In developing countries, malnutrition remains the primary indicator for diarrhea-related death, highlighting the importance of nutrition in early management.

295. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

a) In schigellosis the toxic megacolon is a consequence of severe inflammation extending to the colonic smooth-muscle layer and causing paralysis and dilatation.

b) Resistance to low-pH conditions allows shigellae to survive passage through the gastric barrier, an ability that may explain in part why a small inoculum (as few as 100 CFU) is sufficient to cause infection.

c) In shigellosis diarrhea usually resolves within 2-3 weeks and fever within 4 weeks.

d) Neurologic findings in shigellosis include aseptic meningitis

e) Shigellosis is mostly an endemic disease, with 99% of cases occurring in the developing world and the highest prevalences in the most impoverished areas

296. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

a) In schigellosis the endoscopy shows an edematous and hemorrhagic mucosa, with ulcerations and possibly overlying exudates resembling pseudomembranes.

b) In shigellosis fever is not responsive to antibiotic therapy and shigella can be isolated from urine.

c) Shigellosis is a globally important zoonotic disease

d) Ideally, patients should have a negative stool culture before the schigellosis infection is considered cured.

e) Extensive and essentially uncontrolled use of antibiotics, which may also account for declining mortality rates, has increased the rate of emergence of multidrug-resistant *Shigella* strains

297. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

a) In schigellosis the watery diarrhea that usually precedes the dysenteric syndrome is attributable to active secretion and abnormal water reabsorption—a secretory effect at the jejunal level.

b) *Shigella* infection occurs essentially through oral contamination via direct fecal-oral transmission, the organism being poorly adapted to survive in the environment.

c) The postinfectious immunologic complication known as reactive arthritis can develop weeks or months after shigellosis.

d) Inactivated vaccine is widely available for human shigellosis

e) Physical examination in shigellosis include fever, conjunctival suffusion; chest pain, purulent sputum

298. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

a) In shigellosis, the coupled transport of sodium to glucose may be variably affected, but oral rehydration therapy remains the easiest and most efficient form of rehydration.

b) Glucocorticoids is always recommended in the treatment of shigellosis

c) Dysentery is characterized by uninterrupted excretion of small volumes of bloody mucopurulent stools with increased tenesmus and abdominal cramps.

d) Anorexia, and the exudative enteropathy resulting from mucosal abrasions contributes in shigellosis to rapid deterioration of the patient's nutritional status.

e) In shigellosis jaundice is characteristic fulminant hepatic necrosis and severe hepatocellular

damage

299. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) Shigellosis is an acute diarrheal disease that can, in a matter of hours, result in profound, rapidly progressive dehydration and death
- b) Shigella produces acute colitis and usually involve the distal colon and the rectum.
- c) In shigellosis the stool has a characteristic appearance: a nonbilious, gray, slightly cloudy fluid with flecks of mucus, no blood, and a somewhat fishy, inoffensive odor.
- d) Endemic shigellosis is rare in young and middle-aged adults, probably because of naturally acquired immunity
- e) If edema of the rectal mucosa in shigellosis rectal prolapse is evident (rendering reintegration difficult), it can be osmotically reduced by applying gauze impregnated with a warm solution of saturated magnesium sulfate.

300. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) Shigellosis characteristically begins with the sudden onset of painless watery diarrhea that may quickly become voluminous
- b) The presentation and severity of shigellosis depend to some extent on the infecting serotype but even more on the age and the immunologic and nutritional status of the host.
- c) In schigellosis cytokines released by a growing number of infected intestinal epithelial cells attract PMNs to the infected site, thus destabilizing the epithelial barrier, exacerbating inflammation, and leading to the acute colitis.
- d) In shigellosis ciprofloxacin is recommended as first-line treatment, but the treatment must be adapted to the clinical context.
- e) Complications in shigellosis derive exclusively from the effects of volume and electrolyte depletion and include renal failure due to acute tubular necrosis

301. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) HUS is defined by a diagnostic triad: microangiopathic hemolytic anemia, thrombocytopenia, and acute renal failure due to thrombosis of the glomerular capillaries (with markedly elevated creatinine levels).
- b) Widespread in marine environments, the halophilic *V. parahaemolyticus* causes food-borne shigellosis worldwide
- c) In schigellosis the signs and symptoms may range from mild abdominal discomfort to severe cramps, diarrhea, fever, vomiting, and tenesmus.
- d) In schigellosis acute life-threatening complications are seen most often in children <5 years of age (particularly those who are malnourished) and in elderly patients.
- e) Death from shigella in adults is due to hypovolemic shock

302. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

- a) Colonization with shigella organism is the main risk factor for peptic ulceration as well as for gastric adenocarcinoma
- b) Chronic infection due to Shigella occurs mainly in the lungs in the setting of structural pulmonary diseases
- c) In shigellosis the rectal swabs can be used, as they offer the highest rate of successful isolation during the acute phase of disease.
- d) The watery diarrhea that usually precedes the dysenteric syndrome in schigellosis is attributable to an enterotoxin (ShET-1) and mucosal inflammation

e) In toxic megacolon the abdominal x-ray shows marked dilatation of the transverse colon (greatest in the ascending and descending segments); thumbprinting caused by mucosal inflammatory edema; and loss of the normal haustral pattern.

303. Capitol: Shigellosis Mod de punctare: A3Indicate the correct answers:

a) Leukemoid reactions, with leukocyte counts of 50,000/L, are sometimes noted in association with HUS.

b) In shigellosis the manifestations are usually exacerbated in children, with temperatures up to 40°-41°C (104.0°-105.8°F) and more severe anorexia and watery diarrhea.

c) Shigella produces acute gastroenteritis and usually do not involve the distal colon and the rectum.

d) Rectal prolapse in shigellosis must be treated as soon as possible; with the health care provider using surgical gloves and the patient in the knee-chest position, the prolapsed rectum is gently pushed back into place.

e) Shigella causes infections at almost all sites in the body but shows a rather strong predilection for the kidneys

304. Capitol: Shigellosis Mod de punctare: A1Indicate the correct answer:

a) The urinary tract is the site most frequently infected by shigella

b) Shigella bacteremia is seen most often in adults

c) Shigella are found in the gastrointestinal tract of many animals used for food (including poultry, cattle, sheep, and swine) and many household pets (including birds, dogs, and cats).

d) Cases requiring aggressive rehydration in shigellosis are common.

e) In shigellosis the major complications are predominantly intestinal (e.g., toxic megacolon, intestinal perforations, rectal prolapse) or metabolic (e.g., hypoglycemia, hyponatremia, dehydration).

305. Capitol: Shigellosis Mod de punctare: A1Indicate the correct answer:

a) Shigella infection during pregnancy often leads to fetal death

b) Stools from shigella-infected patients presenting for medical attention do not contain leukocytes or erythrocytes.

c) The "gold standard" for the diagnosis of Shigella infection remains the isolation and identification of the pathogen from fecal material.

d) Although acute diarrheal illnesses are most common, Shigella may cause infections in virtually all parts of the body

e) Worldwide, >80% of duodenal ulcers and >60% of gastric ulcers are related to Shigella colonization

306. Capitol: Shigellosis Mod de punctare: A1Indicate the correct answer:

a) The diagnosis of shigellosis is usually established by the detection of an increased level of serum amylase and lipase

b) Shigellosis requires antibiotic treatment; however, increasing resistance to multiple drugs has been a dominant factor in treatment decisions

c) Shigella found in the oral cavity are commensals that only rarely have pathogenic significance.

d) Shigella infections have a tropism for vascular sites: endocarditis, mycotic aneurysm, and septic thrombophlebitis may all occur.

e) Many patients with shigellosis have upper gastrointestinal symptoms

307. Capitol: Shigellosis Mod de punctare: A1Indicate the correct answer:

- a) Adults living in areas with high standards of hygiene are likely to develop severe, sometimes fatal dysentery whereas infants in endemic areas can develop milder, shorter-duration disease in shigellosis.
- b) Shigella may cause a prolonged relapsing systemic illness (with fever, chills, and myalgias) that has no obvious primary source
- c) In shigellosis jaundice is transient, and serum bilirubin levels return to normal in four to seven days
- d) Any severe acute pain in the higher part of the abdomen or back should suggest the possibility acute shigellosis
- e) Fever persisting beyond 48-72 h in shigellosis raises the possibility of local perforation or abscess.

308. Capitol: Shigellosis **Mod de punctare:** A1Indicate the correct answer:

- a) In shigellosis, the serum amylase and lipase are usually elevated within 24 hours of onset and remains so for 3-7 days.
- b) In shigellosis nutrition should be started as later as possible after several days of completion of initial rehydration.
- c) Postinfectious arthropathy occurs only after infection with *S. flexneri* and not after infection with the other *Shigella* serotypes.
- d) CT is the best imaging study for initial evaluation of a suspected shigellosis
- e) *Shigella* may be present in breast milk, saliva, feces, and urine

309. Capitol: Shigellosis **Mod de punctare:** A1Indicate the correct answer:

- a) Once infected, an individual generally carries *Shigella* for life
- b) Treatment for shigellosis must be adapted to the clinical context, with the recognition that the most fragile patients are children <5 years old
- c) Congenital *Shigella* infection can result from either primary or reactivation infection of the mother
- d) The characteristic laboratory abnormality in shigellosis low WBC, and relative lymphocytosis in peripheral blood, with >10% atypical lymphocytes
- e) *Shigella pneumonia* occurs in 15-20% of bone marrow transplant recipients

310. Capitol: Shigellosis **Mod de punctare:** A1Indicate the correct answer:

- a) In HUS anemia is severe, with fragmented RBC (schizocytes) in the peripheral smear, high serum lactate dehydrogenase and free circulating hemoglobin, and elevated reticulocyte counts.
- b) For shigellosis is characteristic sustained bacteremia or focal infection in a normal host
- c) Syndromes produced by shigellosis often begin with prolonged fever, fatigue, night sweats, arthralgias or myalgias, liver function abnormalities, leukopenia, thrombocytopenia.
- d) In shigellosis radiologic examination of the lung often shows bilateral interstitial or reticulonodular infiltrates that begin in the periphery of the lower lobes and spread centrally and superiorly
- e) *Shigella* replicates primarily in erythroid progenitors

311. Capitol: Shigellosis **Mod de punctare:** A1Indicate the correct answer:

- a) In *Shigella*-seropositive transplant recipients, infection results from reactivation of latent bacteria
- b) Antimotility agents are suspected of increasing the risk of toxic megacolon and are thought to have been responsible for HUS in children infected by EHEC strains.
- c) The development of tachypnea, hypoxemia, and unproductive cough signals respiratory shigella

involvement.

- d) Shigella transmission can occur as a result of transfusion, most commonly of pooled components.
- e) Shigella infection begins with a minor febrile prodrome 7-10 days after exposure, and the classic facial rash develops several days later; after 2-3 days, the erythematous macular rash on the extremities

312. Capitol: Shigellosis Mod de punctare: A1Indicate the correct answer:

- a) Shigella retinitis is an important cause of blindness in immunocompromised patients
- b) A presumptive diagnosis of shigellosis is commonly based on the finding of AFB on microscopic examination of a diagnostic specimen
- c) There are several cutaneous manifestations of shigellosis, frequently has been noted toxic erythema consisting of a maculopapular rash.
- d) An often-overlooked complication of shigellosis is the short- and long-term impairment of the nutritional status of infected children in endemic areas.
- e) The diagnosis of shigella colitis has traditionally been based on the demonstration of shigella trophozoites or cysts in the stool or colonic mucosa of patients with diarrhea.

313. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

- a) Plague is a systemic zoonosis caused by Yersinia pestis
- b) A minority (10-25%) of infections with Y. pestis present as gram-negative septicemia (hypotension, shock) without preceding lymphadenopathy.
- c) Doxycycline, Tetracycline, Ciprofloxacin, Trimethoprim-sulfamethoxazole are the antimicrobials for prophylaxis of plague
- d) After an incubation period of 30 days, the onset of bubonic plague is gradual
- e) Plague is characterized by various clinical syndromes, the most common of which consists of a painless regional lymphadenopathy and lymphadenitis

314. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

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315. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

- a) Animal reservoirs of plague include domestic birds
- b) Streptomycin has historically been the parenteral treatment of choice for plague
- c) Patients in whom pneumonic plague is suspected should be managed in isolation, with droplet precautions observed until pneumonia is excluded or effective antimicrobial therapy has been given for 48 h.
- d) The genus Yersinia comprises gram-negative bacteria of the family Enterobacteriaceae (gamma proteobacteria).
- e) Plague often starts with a gradual onset of fever (over 5-7 days)

316. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

- a) Plague is endemic worldwide, with epidemics occurring every 3-5 years in unvaccinated populations
- b) In ulceroglandular tularemia the affected lymph nodes may become fluctuant and drain spontaneously, but the condition usually resolves without effective antimicrobial treatment
- c) In *Y. pestis* as the infection progresses, spread via efferent lymphatics to the thoracic duct produces high-grade bacteremia.
- d) b-lactams and macrolides are not generally recommended as first-line therapy in plague
- e) *Yersinia* species are gram-negative coccobacilli (short rods with rounded ends), appears bipolar (with a "closed safety pin" appearance) and pleomorphic when stained with a polychromatic stain (Wayson or Wright-Giemsa);

317. Capitol: Plague Mod de punctare: A3 Indicate the correct answers:

- a) In *Y. pestis* hematogenous spread to other organs, including the meninges, can occur.
- b) Human plague generally follows an outbreak in a host rodent population (epizootic).
- c) Erythema migrans is the first clinical manifestation in plague
- d) Bubonic plague is characterized by fever ($>38^{\circ}\text{C}$), malaise, myalgia, dizziness, and increasing pain due to progressive lymphadenitis in the regional lymph nodes near the fleabite or other inoculation site.
- e) In the treatment of plague two preparations are available: human plague immune globulin and equine antitoxin

318. Capitol: Plague Mod de punctare: A3 Indicate the correct answers:

- a) Plague are self-limited infection and always resolve without specific therapy.
- b) After an incubation period of 2-6 days, the onset of bubonic plague is sudden
- c) Postexposure antimicrobial prophylaxis lasting 7 days is recommended following household, hospital, or other close contact with persons with untreated pneumonic plague.
- d) Plague parotitis - acute-onset bilateral swelling of the parotid or other salivary glands lasting >2 weeks without another apparent cause develops in 70% of plague infections
- e) On histology, the bubo node in pestis is found to be hemorrhagic or necrotic, with thrombosed blood vessels, and the lymphoid cells and normal architecture are replaced by large numbers of bacteria and fibrin.

319. Capitol: Plague Mod de punctare: A3 Indicate the correct answers:

- a) Bilateral posterior cervical adenopathy is most highly suggestive of plague infectious
- b) Blood eosinophilia develops in $>90\%$ of patients with plague and may peak at a level of $>50\%$ 2-4 weeks after infection
- c) In primary pneumonic plague progression of initial segmental pneumonitis to lobar pneumonia and then to bilateral lung involvement may occur.
- d) Generally in plague bubo, there is one painful and erythematous bubo with surrounding periganglionic edema.
- e) *Y. pestis* is sensitive to Gentamicin, Streptomycin, Doxycycline, Tetracycline, Chloramphenicol, fluoroquinolones

320. Capitol: Plague Mod de punctare: A3 Indicate the correct answers:

- a) Hydrophobia is the classical diagnostic manifestation of plague
- b) In plague pharyngitis the condition can resemble tonsillitis, with peritonsillar abscess and cervical lymphadenopathy
- c) Ulceroglandular and glandular forms of plague account for no more than 1% of plague cases
- d) In bubonic plague abdominal pain from intraabdominal node involvement can occur without other

visible signs.

e) In *Y.pestis* periglandular tissues are inflamed and also contain large numbers of bacteria in a serosanguineous, gelatinous exudate.

321. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

a) In plague WBC is generally raised (in some normal or leukopenia develops), with neutrophilic leukocytosis and a left shift (numerous immature neutrophils).

b) Tests for the presence of *Y.pestis* require upper gastrointestinal endoscopy and are based on the analysis of gastric biopsy specimens

c) In some patients with plague the septicemic phase occurs without obvious prior bubo development or lung disease (septicemic plague).

d) Lymphadenitis in plague manifests as a tense, tender swelling (bubo) that, when palpated, has a boggy consistency with an underlying hard core.

e) Clinically, plague presents with a vesicular rash in various stages of evolution, low-grade fever

322. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

a) Primary pneumonic plague has a short incubation period, averaging from a few hours to 2-3 days (range, 1-7 days)

b) Plague is a zoonotic disease, and human-to-human transmission does not occur

c) Replication of *Y. pestis* in a regional lymph node results in the local swelling of the lymph node and periglandular region known as a bubo.

d) The natural course of bubonic plague usually ends in chronic disease

e) In endemic areas, any attempt to reduce rodent numbers must be preceded by flea suppression to reduce the migration of plague infected fleas to human hosts.

323. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

a) In plague a 10-day course of antimicrobial therapy is recommended

b) In meningial plague the headache and fever typically occurs >1 week after the onset of bubonic or septicemic plague and may be associated with suboptimal antimicrobial therapy and cervical or axillary buboes.

c) Antiretrovirals is always recommended in the treatment of bubonic plague

d) During incubation period of plague the eschar and painless regional lymphadenopathy frequently appear

e) The appropriate specimens for diagnosis of bubonic, pneumonic, and septicemic plague are bubo aspirate, bronchoalveolar lavage fluid or sputum, and blood, respectively.

324. Capitol: Plague Mod de punctare: A3Indicate the correct answers:

a) In plague the incubation period varies from 1 week to several months, and the onset of fever and other symptoms may be abrupt or insidious

b) Reference laboratory tests for definitive identification of isolates include direct immunofluorescence for F1 Ag (fimbrial capsule-forming protein); specific PCR; specific bacteriophage lysis; ELISA IgG/IgM Ab to F1-Ag are also available

c) In plague the fever is not responsive to antibiotic therapy

d) Meningial plague is uncommon, occurring in 6% of plague

e) In primary pneumonic plague, respiratory signs-cough, dyspnea, chest pain, and sputum production with hemoptysis-typically arise after 24 h.

325. Capitol: Plague Mod de punctare: A1Indicate the correct answers:

- a) In *Y.pestis* continued spread through the lymphatic vessels to contiguous lymph nodes produces second-order primary buboes.
- b) A bubo aspirate is obtained by injection of 1 mL of sterile normal saline into a bubo under local anesthetic and aspiration of a small amount of (usually blood-stained) fluid.
- c) Meningeal plague is common, occurring in 90% of plague
- d) In *Y.pestis* hematogenous spread to the spleen, liver, and secondary buboes follows, with subsequent uncontrolled septicemia, endotoxic shock, and disseminated intravascular coagulation leading to death.
- e) Pasteurization of all milk products before consumption is sufficient to prevent all cases of animal-to-human transmission of plague

326. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) The presentation of plague often fits the patterns of long-lasting fever, misery, and low-back or hip pain.
- b) Plague in pregnant women and neonates can be prevented by maternal immunization during pregnancy
- c) In plague complex or focal disease necessitates 3 months of antibiotic therapy
- d) Plague is a zoonosis whose occurrence is closely related to its prevalence in domestic animals
- e) Hematogenous spread of *Y.pestis* to the lungs results in secondary plague pneumonia, with bacteria initially more prominent in the interstitium than in the air spaces (the reverse being the case in primary plague pneumonia).

327. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) For plague is characteristic rapid progression, very painful bubo, no visible associated cellulitis, no ascending lymphangitis.
- b) In plague the commonest initial symptoms are trismus, muscle pain and stiffness, back pain, and difficulty swallowing
- c) In pulmonary plague most of patients have a dry cough, usually with few changes visible on the chest x-ray, and low grade fever
- d) Plague toxin production, requires spore germination, which occurs only in anaerobic atmosphere
- e) Plague is an acute diarrheal disease that can, in a matter of hours, result in profound, rapidly progressive dehydration

328. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) Left untreated, the fever of plague shows an undulating pattern that persists for weeks before the commencement of an afebrile period that may be followed by relapse
- b) Patients should ideally be followed clinically for up to 2 years to detect relapse in plague
- c) In secondary pneumonic plague - bilateral alveolar infiltrates are seen on chest X-ray, and diffuse interstitial pneumonitis with scanty sputum production is typical.
- d) The mainstays of plague therapy are timely treatment with antitoxin, which may limit the extent of the diseases
- e) GI plague is a functional bowel disorder characterized by abdominal pain or discomfort and altered bowel habits in the absence of detectable structural abnormalities.

329. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) Bubonic plague is a mucosal disease limited to the rectum and rectosigmoid
- b) The physical examination in plague should include a search for signs of abnormal thyroid function and the extrathyroidal features of ophthalmopathy and dermatopathy

- c) Antinuclear antibodies and anti-immunoglobulin antibodies (rheumatoid factors) are identified in all patients with plague
- d) The possible release of aerosolized *Y. pestis* bacteria in a bioterrorist attack, manifesting as an outbreak of primary pneumonic plague in nonendemic regions or in an urban setting where plague is rarely seen
- e) Glucocorticoids are the mainstay of therapy for bubonic plague

330. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) Positron emission tomography (PET) scan or a gallium scan is absolutely necessary for diagnosis of the bubonic plague
- b) Appropriate treatment of bubonic plague results in fever resolution within 2-5 days, but buboes may remain enlarged for >1 week after initial treatment and can become fluctuant.
- c) Nearly half of the patients with plague have had symptoms for 3 months before the bubonic plague was diagnosed.
- d) Cyclophosphamide and azathioprine (1-2 mg/kg lean body weight per day), with or without glucocorticoids, is recommended in the treatment of pulmonary plague
- e) Plague is a metabolic disease that results from an increased body pool of urate with hyperuricemia.

331. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) Worldwide, bubonic plague is the predominant form reported (80-95% of suspected cases), with mortality rates of 10-20%.
- b) Patients with plague come to medical attention mainly because of the onset of progressive exertional dyspnea and a persistent nonproductive cough.
- c) The diagnosis of plague is usually made by bone marrow biopsy, which shows infiltration by malignant lymphoblasts
- d) *Y. pestis* can persist indefinitely in host tissues, and the sites of persistent infection probably include multiple cell types and various organs
- e) The characteristic laboratory abnormality in plague is relative lymphocytosis in peripheral blood, with >10% atypical lymphocytes

332. Capitol: Plague Mod de punctare: A1 Indicate the correct answer:

- a) Acute arthritis is the most common early clinical manifestation of plague
- b) The excretion of *Y. pestis* in urine, genital secretions, and/or saliva often continues for months or years.
- c) In developing nations, food poisoning, necrotizing enterocolitis, and gas gangrene are common because of the *Yersinia pestis* infection
- d) Secondary pneumonic plague can be the source of person-to-person transmission of respiratory infection by productive cough (droplet infection), with the consequent development of primary plague pneumonia.
- e) Reasonable empirical treatment of plague consists of ampicillin combined with either metronidazole

333. Capitol: flu Mod de punctare: A3 Note the correct answers

- a) A specific diagnosis of Parainfluenza is established by detection of virus in blood
- b) Acute viral respiratory illnesses are among the most common of human diseases

- c) Parainfluenza virus type 1 is the most frequent cause of croup (laryngotracheobronchitis) in children
- d) Influenza A has 16 distinct H subtypes and 9 distinct N subtypes, of which only H1, H2, H3, N1, and N2 have been associated with epidemics of disease in humans
- e) In outbreaks, influenza B viruses do not circulate simultaneously with influenza A viruses.

334. Capitol: flu Mod de punctare: A3Note the correct answers

- a) The incubation period for rhinovirus illness is long, generally 3-4 weeks.
- b) Minor variations in influenza A virus are called *antigenic shift*.
- c) Influenza outbreaks are recorded virtually every year, although their extent and severity vary widely.

- d) If acute respiratory distress develops in Parainfluenza, humidified oxygen and intermittent racemic epinephrine are usually administered.
- e) Rapid viral diagnosis of Parainfluenza may be made by identification of antigens in exfoliated cells from the respiratory tract with immunofluorescence or ELISA.

335. Capitol: flu Mod de punctare: A3Note the correct answers

- a) In older children and adults, parainfluenza infections tend to be milder, presenting most frequently as a common cold or as hoarseness, with or without cough.
- b) In adults, parainfluenza infections are generally severe and account for >70% of respiratory illnesses
- c) Major antigenic variations are seen only with influenza B viruses and may be associated with pandemics
- d) Influenza localized outbreaks take place at variable intervals, usually every 1-3 years.

e)

In Rhinovirus infections the throat is frequently sore, and in some cases sore throat is the initial complaint

336. Capitol: flu Mod de punctare: A3Note the correct answers

- a) No specific antiviral therapy is available against parainfluenza viruses, although ribavirin is active in vitro and anecdotal reports describe its use clinically
- b) In Parainfluenza infections chest x-rays can show air trapping and occasionally interstitial infiltrates.
- c) Rhinoviruses are a major cause of lower respiratory tract disease in adults.
- d) In practice, isolation of the Rhinovirus in tissue culture is rarely undertaken because of the benign, self-limited nature of the illness
- e) Major antigenic variations are seen only with influenza C viruses and may be associated with pandemics

337. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Parainfluenza viruses are spread through infected respiratory secretions, primarily by person-to-person contact and/or by large droplets.
- b) Intratypic variations in influenza B antigens are less extensive than those in influenza A viruses and may not occur with influenza C virus.
- c) A major determinant of the extent and severity of an influenza outbreak is the level of immunity

in the population at risk.

d) Global influenza pandemics occurred at variable intervals, but more frequently than interpandemic outbreaks

e) Human strains of influenza C virus may persist in animal reservoirs.

338. Capitol: flu Mod de punctare: A3Note the correct answers

a) Chemoprophylaxis may be considered to control nosocomial outbreaks of influenza.

b) The rates of acute viral respiratory illnesses remain low until age 6, when a progressive increase begins

c) Influenza C has been associated with common cold-like symptoms and often with lower respiratory tract illness

d) Croup occurs exclusively in very young children and has a characteristic clinical course

e) Influenza virus infections occur throughout the year in the tropics.

339. Capitol: flu Mod de punctare: A3Note the correct answers

a) The clinical illnesses induced by acute viral respiratory illnesses viruses are sufficiently distinctive to permit an etiologic diagnosis on clinical grounds alone

b) Croup occurs exclusively in very old patients and has a characteristic clinical course

c) Patients with secondary bacterial pneumonia that follows acute influenza often respond to antibiotic therapy when it is instituted promptly.

d) Influenza B viruses can cause rhinitis or pharyngitis alone

e) The use of antibacterial agents to treat viral respiratory infections represents a major source of abuse of that category of drugs

340. Capitol: flu Mod de punctare: A3Note the correct answers

a) PCR for rhinoviruses is largely a usual procedure

b) The most common clinical manifestations of rhinovirus infections are those of the common cold

c) In influenza outbreaks elderly individuals may subsequently experience a gradual deterioration of underlying cardiovascular, pulmonary, or renal function

d) The most common pneumonic complications during outbreaks of influenza have mixed features of viral and bacterial pneumonia.

e) Specific antiviral therapy is widely used in rhinovirus infections

341. Capitol: flu Mod de punctare: A3Note the correct answers

a) Serum antibody responses to influenza virus can be detected by the second week after primary infection.

b) Global influenza pandemics have occurred at variable intervals, but much less frequently than interpandemic outbreaks

c) Fibrin thrombi in alveolar capillaries, along with necrosis and hemorrhage, have also been noted in fatal cases of primary influenza pneumonia

d) Minor variations in influenza A virus are called *antigenic shifts*.

e) In primary influenza viral pneumonia, viral cultures of respiratory secretions and lung parenchyma, especially if samples are taken early in illness, yield low titers of virus.

342. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Most patients with uncomplicated influenza infections have a low WBC count
- b) Acyclovir shows significantly improve outcomes in influenza infection
- c) Antiinfluenza chemoprophylaxis does not interfere with an immune response to the influenza vaccine.
- d) During acute influenza, virus may be detected in throat swabs, nasopharyngeal swabs or washes, or sputum.
- e) Primary influenza viral pneumonia has a predilection for individuals with cardiac disease, particularly those with mitral stenosis

343. Capitol: flu Mod de punctare: A3Note the correct answers

- a) All five serotypes of parainfluenza virus (1, 2, 3, 4A, and 4B) share certain antigens with other members of the Paramyxoviridae family, including mumps and Newcastle disease viruses.
- b) Efficient person-to-person transmission is characteristic for avian influenza A infection.
- c) Adults may present with coryza, sore throat, hoarseness, and cough that are croupy in Parainfluenza infections.
- d) Illness usually begins in rhinovirus infections with rhinorrhea and sneezing accompanied by nasal congestion.
- e) Oseltamivir has been associated with neuropsychiatric side effects in children.

344. Capitol: flu Mod de punctare: A3Note the correct answers

- a) In influenza antigenic drifts result from point mutations involving the RNA segment that codes for the hemagglutinin, which occur most frequently in five hypervariable regions.
- b) Salicylates should be reserved for the treatment of viral complications of acute influenza, such as primary viral pneumonia. should be administered in children <18 years of age with influenza
- c) It is possible that large population clusters support a low level of interepidemic transmission of influenza viruses.
- d) Antibacterial drugs should be reserved for the treatment of viral complications of acute influenza, such as primary viral pneumonia.
- e) During an outbreak, antiinfluenza chemoprophylaxis can be administered simultaneously with inactivated vaccine.

345. Capitol: flu Mod de punctare: A3Note the correct answers

- a) In influenza infection virus spreads from a few foci to a large number of respiratory cells over several weeks.
- b) Although antiviral drugs provide chemoprophylaxis against influenza, their use for that purpose has been limited because of concern about current patterns and further development of resistance.
- c) Immunity to parainfluenza infections with serotypes 1 and 2 is mediated by local IgA antibodies in the respiratory tract.
- d) The vast majority of acute viral respiratory illnesses involve the upper respiratory tract, but lower respiratory tract disease can also develop, particularly in younger age groups, in the elderly
- e) ANA and AMA appear to be the most important mediators of immunity in influenza infection.

346. Capitol: flu Mod de punctare: A3Note the correct answers

- a) ECG changes during acute influenza have been ascribed most often to exacerbations of the underlying cardiac disease rather than to direct involvement of the myocardium with influenza virus.
- b) The major public health measure for prevention of influenza is antiviral treatment.
- c) Parainfluenza virus type 3 is an important cause of bronchiolitis and pneumonia in infants
- d) Overall rates of rhinovirus infection are higher among infants and young children and decrease

with increasing age

e) Codeine-containing compounds are not employed if the cough is particularly troublesome in acute influenza.

347. Capitol: flu Mod de punctare: A3Note the correct answers

a) Antibacterial drugs should be reserved for the treatment of bacterial complications of acute influenza, such as secondary bacterial pneumonia.

b) Primary influenza viral pneumonia has also been reported in otherwise-healthy young adults as well as in older individuals with chronic pulmonary disorders

c) Rhinoviruses grow preferentially at 33°-34°C (the temperature of the human nasal passages) rather than at 37°C (the temperature of the lower respiratory tract).

d) Parainfluenza viruses can cause pneumonia and bronchiolitis only in old patients

e) Asymptomatic infection is not common in influenza C virus infection.

348. Capitol: flu Mod de punctare: A3Note the correct answers

a) In severe croup in Parainfluenza infections fever persists, with worsening coryza and sore throat.

b) Myocarditis and pericarditis were frequently reported in association with influenza virus infection.

c) Specific antiviral therapy is not available in Rhinovirus infections

d) By adulthood, nearly all individuals have neutralizing antibodies to multiple serotypes of Rhinoviruses

e) Influenza vaccine should be administered early in the winter during influenza outbreaks and is not necessary to be given then annually.

349. Capitol: flu Mod de punctare: A3Note the correct answers

a) Illness in rhinovirus infections generally lasts for more than 4-9 days and does not resolve spontaneously, usually with sequelae.

b) In influenza infected cells, virus replicates within 4-6 h, after which infectious virus is released to infect adjacent or nearby cells.

c) Influenza vaccines are generated from influenza A and B virus isolates that circulated in the previous influenza seasons and are anticipated to circulate in the upcoming season.

d) Central nervous system (CNS) diseases, including encephalitis, transverse myelitis, and Guillain-Barré syndrome, have been reported during influenza.

e) At low risk for complications of influenza are residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions

350. Capitol: flu Mod de punctare: A3Note the correct answers

a) The pathogenesis of systemic symptoms in influenza may be related to the induction of certain cytokines, particularly TNF, interferon, interleukin 6 and 8, in respiratory secretions and in the bloodstream.

b) The influenza virus is transmitted via aerosols generated by coughs and sneezes, although hand-to-hand contact, other personal contact, and even fomite transmission may take place.

c) Persistent generalized lymphadenopathy because of parainfluenza virus mean enlarged lymph nodes in 2 non-contiguous sites persisting for 1 months.

d) Influenza A viruses do not receive subtype designations

e) Human strains of influenza A virus may persist in animal reservoirs.

351. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Ribavirin is a nucleoside analogue with high activity against influenza A and B viruses in vivo.
- b) Secretory antibodies produced in the respiratory tract are predominantly of the IgA class and also play a major role in protection against influenza infection.
- c) In uncomplicated influenza, the acute illness generally resolves over 2-3 weeks
- d) Children may present with coryza, sore throat, hoarseness, and cough that may or may not be croupy in Parainfluenza infections.
- e) In Rhinovirus infections the nasal mucosa is edematous, is often hyperemic, and-during acute illness-is covered by a mucoid discharge

352. Capitol: flu Mod de punctare: A3Note the correct answers

- a) In most of the cases of influenza that come to a physician's attention, the patient has a subfebrile temperature.
- b) In uncomplicated influenza cough may persist 1-2 months or longer.
- c) The most common bacterial pathogens in secondary bacterial pneumonia that follows acute influenza are *Strept. pneumoniae*, *Staph.aureus*, and *Haemophilus influenzae*
- d) Cases of influenza caused by avian A/H5N1 virus are reportedly associated with high rates of pneumonia (>50%) and extrapulmonary manifestations such as diarrhea and CNS involvement.
- e) For uncomplicated influenza in individuals at low risk for complications, symptom-based rather than antiviral therapy may be considered.

353. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Deaths in influenza caused by avian A/H5N1 virus have been associated with multisystem dysfunction, including cardiac and renal failure.
- b) Influenza C viruses frequently cause pneumonia and excess mortality in high-risk patients
- c) In with Rhinovirus infections children, bronchitis, bronchiolitis, and bronchopneumonia have been frequently reported
- d) Frank dyspnea, hyperpnea, cyanosis, diffuse rales, and signs of consolidation are indicative of pulmonary complications in influenza.
- e) In influenza respiratory symptoms often become more prominent as systemic symptoms subside.

354. Capitol: flu Mod de punctare: A3Note the correct answers

- a) The hemagglutinin and neuraminidase of influenza B virus undergo less frequent and less extensive variation than those of influenza A viruses
- b) In Parainfluenza infections most children recover over the next 1 or 2 days, although progressive airway obstruction and hypoxia ensue occasionally.
- c) In outbreaks influenza B viruses never circulated simultaneously with influenza A viruses.
- d) In Rhinovirus infections in nasal mucosa there is a mild infiltrate with inflammatory cells, including neutrophils, lymphocytes, plasma cells, and eosinophils.
- e) Systemic signs and symptoms, such as malaise and headache, are mild or prominent, and fever is usual in Rhinovirus infections.

355. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Serologic methods for influenza diagnosis do not require comparison of antibody titers in sera obtained during the acute illness with those in sera obtained 10-14 days after.
- b) Initially, influenza viral infection involves the ciliated columnar epithelial cells, but it may also involve other respiratory tract cells, including alveolar cells, mucous gland cells, and macrophages.

- c) During acute influenza, virus can be isolated by use of tissue culture-or, less commonly, chick embryos-within 48-72 h after inoculation.
- d) Subclinical pulmonary involvement in influenza may be more common than is appreciated.
- e) Specific antiviral therapy is not available for influenza

356. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Chemoprophylaxis for healthy persons after community exposure to influenza generally is not recommended but may be considered for individuals at high risk of complications who have had close contact with an acutely ill person.
- b) Leukocyte counts in influenza are variable, frequently being low early in illness and normal or slightly elevated later.
- c) The major public health measure for prevention of parainfluenza is vaccination.
- d) In children, influenza infection may present as croup.
- e) At low risk for complications of influenza are children from birth to 4 years old because of maternal antibodies.

357. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Rhinoviruses are most often introduced into families by grandparents.
- b) Nearly all cases of avian influenza A viruses were associated with contact with infected poultry.
- c) Severe, prolonged, and even fatal parainfluenza infection has been reported in children and adults with severe immunosuppression
- d) Influenza B virus causes outbreaks that are generally more extensive and are associated with more severe disease than those caused by influenza A virus.
- e) Given the many serotypes of rhinovirus, diagnosis by serum antibody tests is currently impractical

358. Capitol: flu Mod de punctare: A3Note the correct answers

- a) Patients with mixed viral and bacterial pneumonia generally have less widespread involvement of the lung than those with primary viral pneumonia, and their bacterial infections may respond to appropriate antibacterial drugs.
- b) Antibodies to the hemagglutinin appear to be the most important mediators of immunity in influenza infection.
- c) Serum antibody responses to influenza virus can be detected by hemagglutination inhibition (HI), complement fixation (CF), neutralization, ELISA, and antineuraminidase antibody assay.
- d) Rises in interferon titers coincide with increases in influenza virus shedding.
- e) In some pandemics of influenza pregnancy lower the risk of primary influenza pneumonia.

359. Capitol: flu Mod de punctare: A3Note the correct answers

- a) The most extensive and severe outbreaks of influenza are caused by influenza B viruses
- b) Patients with apparently uncomplicated influenza have been reported to have a variety of mild ventilatory defects and increased alveolar-capillary diffusion gradients
- c) Patients in pulmonary complications associated with influenza may experience a gradual progression of their acute illness or may show transient improvement followed by clinical exacerbation
- d) Amantadine and rimantadine are not currently recommended because of widespread resistance in influenza A viruses, their use may be reconsidered if viral susceptibility is reestablished.
- e) The signs of primary viral pneumonia are cough, production of purulent sputum, and physical and x-ray signs of consolidation.

360. Capitol: flu Mod de punctare: A3Note the correct answers

- a) The most significant complication of influenza is pneumonia: "primary" influenza viral pneumonia, secondary bacterial pneumonia, or mixed viral and bacterial pneumonia.
- b) In primary influenza viral pneumonia in more advanced cases, diffuse rales may be noted, and chest x-ray findings consistent with diffuse interstitial infiltrates and/or acute respiratory distress syndrome
- c) Zanamivir may exacerbate bronchospasm in asthmatic patients
- d) In contrast to influenza C virus, influenza A and B viruses appears to be a relatively minor cause of disease in humans.
- e) Thorough hand washing, environmental decontamination, and protection against autoinoculation cannot help to reduce rates of transmission of Rhinovirus infection.

361. Capitol: flu Mod de punctare: A3Note the correct answers

- a) If nasal obstruction is particularly troublesome in Rhinovirus infections, nasal decongestant cannot be added
- b) The results of chest examination reveals x-ray signs of consolidation in uncomplicated influenza
- c) Early in influenza, the patient appears flushed and the skin is hot and dry, although diaphoresis and mottled extremities are sometimes evident, particularly in older patients.
- d) In primary influenza viral pneumonia sputum production is generally scanty, but the sputum can contain blood.
- e) In fatal cases of primary influenza pneumonia, histopathologic examination reveals a marked inflammatory reaction in the alveolar septa, with edema and infiltration by lymphocytes, macrophages, occasional plasma cells, and variable numbers of neutrophils.

362. Capitol: flu Mod de punctare: A3Note the correct answers

- a) If the etiology of bacterial pneumonia is unclear, empirical antibiotics effective against the most common bacterial pathogens (*S. pneumoniae*, *S. aureus*, and *H. influenzae*) should be selected.
- b) Pandemic influenza may begin with rapid transmission at multiple locations, have high attack rates, and extend beyond the usual seasonality, with multiple waves of attack before or after the main outbreak.
- c) Most commonly during acute influenza, the laboratory diagnosis is established with rapid tests that detect viral antigens by means of immunologic or enzymatic techniques
- d) Rhinovirus infection has most frequently been described as an illness characterized by the abrupt onset of systemic symptoms, as well as accompanying respiratory tract signs, particularly cough and sore throat.
- e) At high risk for complications of influenza are adults and children who have no any condition that can compromise respiratory function or compromise the handling of respiratory secretions.

363. Capitol: flu Mod de punctare: A1Note the wrong answer

- a) Because rhinovirus infections are generally severe, use of antiviral treatment is always necessary.
- b) At high risk for complications of influenza are pregnant women
- c) Common laboratory tests, such as white blood cell count and erythrocyte sedimentation rate, are not helpful in rhinovirus infection.
- d) Influenza B outbreaks are seen most frequently in schools, military camps, although occasionally outbreaks in institutions in which elderly individuals reside
- e) In adults, parainfluenza infections are generally mild and account for <10% of respiratory illnesses.

364. Capitol: flu Mod de punctare: A1Note the wrong answer

- a) Rhinoviruses appear to spread through direct contact with infected secretions, usually respiratory droplets.
- b) A specific diagnosis of Parainfluenza is established by detection of virus in blood
- c) Severe leukopenia has been described in overwhelming influenza viral or bacterial infection, while leukocytosis with $>15,000$ cells/L raises the suspicion of secondary bacterial infection.
- d) Although myalgias are exceedingly common in influenza, true myositis is rare in influenza.
- e) The severity of influenza illness is correlated with the quantity of virus shed in secretions; & the degree of viral replication may be an important factor in pathogenesis.

365. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) The rates of acute viral respiratory illnesses are highest among children <1 year old and remain high until age 6, when a progressive decrease begins
- b) Therapy for primary influenza pneumonia is directed at maintaining oxygenation with aggressive respiratory and hemodynamic support as needed.
- c) Myositis, rhabdomyolysis, and myoglobinuria are frequent complications of influenza infection.
- d) Ocular signs and symptoms in influenza include pain on motion of the eyes, photophobia, and burning of the eyes.
- e) Multiple serotypes of Rhinoviruses circulate simultaneously, and generally no single serotype or group of serotypes has been more prevalent than the others

366. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) In secondary bacterial pneumonia, improvement of the patient's condition over 2-3 days is followed by a reappearance of fever along with clinical signs of pneumonia.
- b) Histopathologic study in influenza infection reveals degenerative changes, including granulation, vacuolization, swelling, and pyknotic nuclei, in infected ciliated cells.
- c) Two-thirds to three-fourths of cases of acute respiratory illnesses are caused by viruses
- d) The most extensive and severe outbreaks of influenza are caused by influenza C viruses
- e) Rhinovirus infections occur throughout the year, with seasonal peaks in early fall and spring in temperate climates

367. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) Antibacterial agents should be used only if bacterial complications such as otitis media or sinusitis develop in Rhinovirus infections.
- b) Pulmonary complications associated with influenza include worsening of chronic obstructive pulmonary disease and exacerbation of chronic bronchitis and asthma.
- c) Antiviral drugs should not be administered until at least 2 weeks after administration of live influenza vaccine
- d) Pandemics provide the most dramatic evidence of the impact of influenza A.
- e) CD4 count under $200/\mu\text{L}$ is considered influenza-defining

368. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) The incubation period for rhinovirus illness is short, generally 1-2 days.
- b) Aerosolized or systemically administered glucocorticoids are beneficial in Parainfluenza acute respiratory distress.
- c) With antiretroviral therapy, viral loads can often be suppressed to an undetectable level in parainfluenza infections
- d) Antigenic drifts of influenza A virus have been reported nearly annually.

e) Administration of live vaccine should not begin until at least 48 h after antiviral drug administration has been stopped.

369. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) Interpandemic influenza A outbreaks usually begin abruptly, peak over a 2- to 3-week period, generally last for 2-3 months, and often subside almost as rapidly as they began

b) Human cases of influenza caused by avian influenza viruses A/H5N1, A/H7N7, A/H9N2 were detected.

c) During most outbreaks of influenza A, a single subtype has circulated at a time.

d) In Rhinovirus infections virus shedding coincides with the onset of illness or may begin shortly before symptoms develop

e) Severe abdominal pain is common in patients with parainfluenza infections

370. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) Chemoprophylaxis with oseltamivir or zanamivir has been 84-89% efficacious against influenza A and B.

b) In viral pneumonia the etiology can often be determined by Gram's staining and culture of a sputum specimen.

c) The most sensitive and specific in vitro test for influenza virus is reverse-transcriptase polymerase chain reaction

d) Sinusitis as well as otitis media (the latter occurring particularly often in children) may also be associated with influenza.

e) It is believed that antigenic drifts of influenza virus result from point mutations occurring sequentially during the spread of virus from person to person

371. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) The clinical illnesses induced by acute viral respiratory illnesses viruses are always sufficiently distinctive to permit an etiologic diagnosis on clinical grounds alone

b) Influenza affects the upper and/or lower respiratory tract and is often accompanied by systemic signs and symptoms such as fever, headache, myalgia, and weakness

c) Antigenic variation in influenza A virus may involve the hemagglutinin alone or both the hemagglutinin and the neuraminidase.

d) Rhinoviruses are a prominent cause of the common cold and have been detected in up to 50% of common cold-like illnesses by tissue culture and polymerase chain reaction

e) Influenza A viruses occasional can cause pneumonia and excess mortality in high-risk patients

372. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) Examination of the pharynx in influenza may yield unremarkable results despite a severe sore throat, but injection of the mucous membranes and postnasal discharge are apparent in some cases.

b) In primary influenza viral pneumonia, viral cultures of respiratory secretions and lung parenchyma, especially if samples are taken early in illness, yield no virus.

c) Influenza C viruses do not receive subtype designations

d) PCR for rhinoviruses is largely a research procedure

e) More than 200 antigenically distinct viruses from 10 genera have been reported to cause acute respiratory illness, and it is likely that additional agents will be described in the future

373. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) Codeine-containing compounds may be employed if the cough is particularly troublesome in acute influenza.

b) Outbreaks of influenza illness of variable extent and severity occur nearly every year.

- c) The parainfluenza infection incubation period has varied from 3 to 6 days in experimental infections but may be somewhat shorter for naturally occurring disease in children
- d) The neuraminidase inhibitors zanamivir, oseltamivir, and peramivir are available for parainfluenza infection
- e) In some studies of volunteers, transmission of Rhinoviruses was most efficient by hand-to-hand contact, with subsequent self-inoculation of the nasal mucosa.

374. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) In Rhinovirus infections mucus-secreting glands in the submucosa appear hyperactive; the nasal turbinates are engorged, a condition that may lead to obstruction of nearby openings of sinus cavities.
- b) Immune responses to the H antigen are the major determinants of protection against infection with influenza virus, but immune responses to the N antigen limit viral spread.
- c) In influenza many patients have a persistent cough, which may last for 1 week and which is often accompanied by substernal discomfort.
- d) An epidemiologic association between Reye's syndrome and aspirin therapy for the antecedent viral infection has been noted
- e) Secondary bacterial pneumonia that follows acute influenza occurs most frequently in previously healthy adults

375. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) Mortality rates in avian influenza A infection is high (60%), and clinical manifestations are differed somewhat from those associated with "typical" outbreaks of influenza.
- b) Mild cases of Parainfluenza croup should be treated with bed rest and moist air generated by vaporizers.
- c) A brassy or barking cough may progress to frank stridor in Parainfluenza infections.
- d) Efficient person-to-person transmission has been observed to date in avian influenza A infection.
- e) In Rhinovirus infections the complications related to obstruction of the eustachian tubes or sinus ostia, including otitis media or acute sinusitis, can develop.

376. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) The initial event in influenza is infection of the respiratory epithelium with influenza virus acquired from respiratory secretions of acutely infected individuals
- b) Illnesses occurring between pandemics of influenza viruses (interpandemic disease) also account for extensive mortality and morbidity rates
- c) Influenza virus has frequently been detected in extrapulmonary sites (including the bloodstream).
- d) If bronchiolitis or pneumonia develops in Parainfluenza infections, progressive cough accompanied by wheezing, tachypnea, and intercostal retractions may occur.
- e) In immunosuppressed patients, particularly bone marrow transplant recipients, severe and even fatal pneumonias have been associated with rhinovirus infections.

377. Capitol: flu Mod de punctare: A1Note the **wrong** answer

- a) The most extensive outbreaks of influenza A are caused in part because of the remarkable propensity of the H and N antigens of these viruses to undergo periodic antigenic variation.
- b) The neuraminidase inhibitors zanamivir, oseltamivir, and peramivir are available for influenza C
- c) The designation of influenza viruses as type A, B, or C is based on antigenic characteristics of the nucleoprotein (NP) and matrix (M) protein antigens.
- d) In Parainfluenza infections lower respiratory tract involvement in older children and adults is

uncommon, but tracheobronchitis in adults has been reported.

e) In Rhinovirus infections therapy in the form of antihistamines and nonsteroidal anti-inflammatory drugs may be beneficial in patients with particularly pronounced symptoms

378. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) The morbidity and mortality rates caused by influenza outbreaks continue to be low.

b) Individual strains of influenza A viruses are designated according to the site of origin, isolate number, year of isolation, and subtype

c) Primary influenza viral pneumonia presents as acute influenza that does not resolve but instead progresses relentlessly, with persistent fever, dyspnea, and eventual cyanosis.

d) In influenza infection the affected cells eventually become necrotic and desquamate; in some areas, previously columnar epithelium is replaced by flattened and metaplastic epithelial cells.

e) In interpandemic outbreaks, the first indication of influenza activity is an increase in the number of children with febrile respiratory illnesses who present for medical attention.

379. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) Pandemic waves of influenza can continue for several years, until immunity in the population reaches a high level.

b) Because of the absence of widespread immunity to the H5, H7, and H9 viruses, concern persists that avian-to-human transmission might also contribute to the emergence of pandemic strains.

c) Parainfluenza virus infections occur most frequently among children, in whom initial infection with serotype 1, 2, or 3 is associated with an acute febrile illness in 50-80% of cases.

d) At high risk for complications of influenza are persons younger 65 years old

e) Because rhinovirus infections are generally mild and self-limited, treatment is not usually necessary.

380. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) In Parainfluenza infections physical examination shows nasopharyngeal discharge and oropharyngeal injection, along with rhonchi, wheezes, or coarse breath sounds.

b) A 5-day course of oseltamivir or zanamivir reduces the duration of signs and symptoms of uncomplicated influenza by 1-1.5 days if treatment is started within 2 days of the onset of illness.

c) Primary influenza viral pneumonia is the most common but less severe of the pneumonic complications in influenza.

d) Since cough is ordinarily self-limited, treatment with cough suppressants generally is not indicated in acute influenza.

e) When the absence of immunity to influenza virus is worldwide, epidemic disease may spread around the globe, resulting in a pandemic.

381. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) A gradual temperature rise within the first 4-5 days of influenza illness is generally followed by rapid defervescence over 24 hours

b) The host response to influenza infections involves a complex interplay of humoral antibody, local antibody, cell-mediated immunity, interferon, and other host defenses.

c) The most common bacterial pathogens in secondary bacterial pneumonia that follows acute influenza are organisms that can colonize the nasopharynx and cause infection in the wake of changes in bronchopulmonary defences

d) The results of chest examination are largely negative in uncomplicated influenza, although rhonchi, wheezes, and scattered rales have been reported with variable frequency in different outbreaks.

e) Some rapid tests can distinguish between influenza A and B viruses, but detection of differences in hemagglutinin subtypes requires additional subtype-specific immunologic techniques.

382. Capitol: flu Mod de punctare: A1Note the **wrong** answer

a) The most serious complication of influenza B virus infection is Reye's syndrome.

b) The spectrum of clinical presentations in influenza is wide, ranging from a mild, afebrile respiratory illness similar to the common cold to severe prostration.

c) Rhinovirus infection is diagnosed by isolation of the virus from nasal washes or nasal secretions in tissue culture

d) Parainfluenza viruses are members of the Orthomyxoviridae family, of which parainfluenza A, B, and C viruses constitute three separate genera.

e) Because the genome of influenza is segmented, the opportunity for gene reassortment during infection is high; reassortment often occurs during infection of cells with more than one influenza A virus.