

1. A 52-year-old man with a history of alcohol abuse presents with sudden severe abdominal pain associated with nausea and vomiting. Which of the following is true when considering serum testing for acute pancreatitis?

- A. Elevated amylase levels appear well before elevated lipase levels.
- B. Elevated amylase is more specific than elevated lipase for pancreatitis.
- C. Elevated lipase is more specific than elevated amylase for pancreatitis
- D. Elevated Amylase and elevated lipase are equally specific for pancreatitis
- E. Lipase has both salivary and pancreatic isoforms, which reduces specificity.

2. Macroamylase refers to:

- A. The presence of complexes consisting of amylase and immunoglobulins that result in elevated amylase levels.
- B. The elevation of serum salivary amylase isoform in cases of ectopic pregnancy or ovarian malignancy.
- C. The presence of elevated serum amylase levels in acute pancreatitis
- D. The false elevation of amylase levels in lipemic specimens.
- E. The elevation of amylase levels in cases of biliary tract obstruction.

3. A 63-year-old woman with weight loss is found to have a slightly elevated alanine aminotransferase level of 45 U/L (N=8-33 U/L) and an elevated aspartate aminotransferase level of 150 U/L (N=4-36 U/L)

Which of the following is the most likely cause?

- A. Acute Viral Hepatitis
- B. Reye's Syndrome
- C. Acute Alcoholic Hepatitis
- D. Acute Mononucleosis
- E. Chronic Viral Hepatitis

4. A 33-year-old jaundiced man is found to have the following serum laboratory values: Total Bilirubin of 3.0 mg/dL (normal <1.0), Direct bilirubin of 2.7 mg/dL (normal <0.2).

Which of the following is the most likely cause?

- A. Gilberts Syndrome
- B. Fasting
- C. Crigler-Najjar syndrome
- D. Bile Duct Obstruction
- E. Hemolytic Anemia

5. A 53-year-old woman presents with chronic intermittent acute abdominal pain that is determined to stem from common bile duct obstruction. Which of the following liver function markers would one not expect to be highly elevated in the serum?

- A. Gamma-glutamyltransferase
- B. Total Bilirubin
- C. Alkaline Phosphatase
- D. Aspartate Aminotransferase
- E. Conjugated Bilirubin

6. Which of the following is the most specific serum marker for alcohol dependency?

- A. Carbohydrate Deficient Transferrin
- B. Lipase
- C. Gamma-Glutamyl Transferase
- D. AFP-L3%
- E. Lactate Dehydrogenase

7. Which of the following is not true of drug metabolism:

- A. In general, metabolism serves to increase the water solubility of xenobiotic compounds.
- B. Most Phase II reactions are mediated by the cytochrome P450 (CYP) enzymes
- C. Phase II reactions typically involve enzyme-mediated conjugation of compounds
- D. Phase I reactions typically involve oxidation of compounds
- E. Glutathione and Acetyl CoA often serve as cofactors in Phase II reactions

8. Warfarin metabolism is mainly performed by:

- A. P450 CYP3A4
- B. P450 CYP2C9
- C. P450 CYP2D6
- D. Thiopurine S-Methyltransferase (TPMT)
- E. N-Acetyl-Transferases (NATs)

9. An active form of an antidepressant is subsequently oxidized by P450 CYP2C9. Which patients would you generally expect to need the highest dose of antidepressants to maintain similar serum concentrations of active drug?

- A. Extensive metabolizers (EM)
- B. Intermediate Metabolizers (IM)
- C. Poor Metabolizers (PM)
- D. Ultrarapid metabolizers (UM)
- E. Females

10. Which of the following is untrue in cases of toxic overdose of acetaminophen?
- A. Depression of P450 enzyme activities by other therapeutic drugs result in the increased production of the toxic metabolite: N-acetyl-p-benzoquinone imine
 - B. Glutathione depletion in alcoholics can lead to increased acetaminophen hepatotoxicity
 - C. The Rumack-Matthew nomogram can be used to estimate the probability of hepatic toxicity if the time of ingestion and acetaminophen plasma concentration is known.
 - D. Administration of N-acetylcystiene is a common antidotal therapy
 - E. Children are generally not at risk of developing Reye's syndrome.

Notes for question set:¹

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