

## QUESTIONS ON THE PRESENTATION

### “Valproate Case 3 Formulations” (2-13-16)

**Please select the single best choice.**

1. When you study valproate effects on the pancreas to understand the pharmacological mechanisms explaining valproate-induced pancreatitis, you are studying valproate pharmacokinetic mechanisms.  
A. True    B. False
2. Regarding valproate kinetics in serum:  
A. Total concentration does not follow linear kinetics.  
B. In total therapeutic concentrations, free concentrations increase linearly with dose increases.  
C. In high doses, total concentrations do not increase proportionally with dose increases but increase less than you would expect if total concentrations followed linear kinetics.  
D. All of the above are correct.
3. Regarding valproate metabolism:  
A. In low doses,  $\beta$ -oxidation may be the most important pathway.  
B. In high doses, glucuronidation may be the most important pathway.  
C. Several CYPs contribute in a relative minor way to valproate metabolism.  
D. All of the above are correct.
4. All divalproex sodium formulations are equivalent in bioavailability.  
A. True  
B. False
5. Drugs that can decrease serum valproate levels are:  
A. Oral contraceptive estrogens.  
B. Rifampin.  
C. Carbapenem antibiotics.  
D. All of the above are correct.

6. Regarding valproate pharmacodynamic drug-drug interactions:
- A. Adding valproate to antipsychotics may increase risk of weight gain.
  - B. Adding topiramate to valproate increases risk of sedation and of some rare adverse drug reactions such as hypothermia or hyperammonemia.
  - C. The combination of valproate and clonazepam has been associated with absence seizures.
  - D. All of the above are correct.
7. Regarding valproate pharmacokinetics:
- A. With higher total concentrations, valproate has a higher percentage of free concentrations and is metabolized faster.
  - B. The protein-bound fraction is the one that is metabolized.
  - C. Total concentrations always reflect free concentrations well.
  - D. All of the above are correct.
8. Valproic acid formulations need to be taken with large amounts of water or food to avoid gastrointestinal upset.
- A. True
  - B. False
9. Valproate is frequently associated with teratogenicity.
- A. True
  - B. False
10. Valproate can contribute to lamotrigine-induced Stevens-Johnson syndrome by decreasing lamotrigine metabolism. Therefore, you should prescribe lower initial doses of lamotrigine for patients taking valproate.
- A. True
  - B. False