Cases in Drug Interactions with Anticoagulation Therapy
Quiz Questions

1. You are not familiar with drug X. How would you determine if a drug
interaction is likely between drug X and warfarin?
   a. Check drug X prescribing information
   b. Evaluate metabolic characteristics of drug X
   c. Review case reports through Medline
   d. Request information from the manufacturers of warfarin
   e. All of the above

2. Warfarin is a racemic mixture of both R- and S-warfarin. What is the primary
route of elimination for the S-warfarin version of this racemic mixture?
   a. Renal
   b. Hepatic CYP1A2, CYP3A4
   c. Hepatic CYP2C15
   d. Hepatic CYP2C9

3. Acute alcohol use “binge drinking” would have what effect on the INR of a
patient who has been stable on warfarin anticoagulation therapy?
   a. INR value would go down
   b. INR value would remain the same
   c. INR value would go up
   d. None of the above

Patient Case:
JM is a 35 YO female with a history of DVT and is on chronic warfarin
therapy with an INR goal of 2.0-3.0. JM is not taking any other meds and has
discontinued her birth control tablets several years earlier due to the
association with her developing a DVT. JM decides to self-treat what is
believed to be a vaginal yeast infection with miconazole nitrate vaginal cream
for 7 days.

4. Based upon the information provided in this patient case should you be
concerned about JM self-treating her yeast infection?
   a. Yes
   b. No
   c. Undecided
5. Based upon the information provided in this case what would you expect to happen to JM’s INR level after 3-4 days of her using the miconazole nitrate vaginal cream?
   a. INR would go up
   b. INR would remain the same
   c. INR would go down
   d. None of the above

6. Based upon the information that you have on patient JM when should you schedule her next INR testing time?
   a. Recheck INR in 1 month
   b. Recheck INR in 2 weeks
   c. Recheck INR in 3-4 days
   d. Recheck INR in 90 days

7. Warfarin decreases the production of which of the following vitamin K dependent clotting factors?
   a. II
   b. VII
   c. IX
   d. X
   e. All of the above

8. Which of the following best describes examples of pharmacodynamic mechanisms for drug interactions?
   a. Protein binding
   b. Enzyme induction
   c. Synergism
   d. None of the above

9. Which of the following oral anticoagulant agents currently has an approved reversal agent to reverse their anticoagulant actions?
   a. Fondaparinux
   b. Rivaroxaban
   c. Warfarin
   d. Dabigatran
   e. Both c and d above
10. The best over-the-counter (OTC) self-treatment option for a patient with minor headaches, aches and pains who is also taking warfarin is acetaminophen (APAP). Why would you recommend APAP over aspirin or NSAIDs to a patient on warfarin?

a. APAP does not inhibit platelet function
b. APAP does not cause injury to the GI mucosa
c. APAP is highly protein bound
d. Both a and b above