

Chapter 87, Self-Assessment Questions

1. ML is a 56-year-old man who returns to clinic for a discussion of initiating antiretroviral treatment after being recently diagnosed. HIV RNA = 125,000 copies/mL (125×10^6 copies/L) and CD4⁺ T-cell count = 390 cells/mm³ (390×10^6 /L) were obtained 2 weeks ago. The baseline HIV genotype shows NNRTI resistance. He is 6' tall (183 cm) and weighs 176 lbs (80 kg). Today, his laboratory test results reveal a serum creatinine of 1.43 mg/dL (126 μ mol/L). He is HLA-B*5701 negative. His current medications include simvastatin 40 mg daily, hydrochlorothiazide 25 mg daily, omeprazole 20 mg, and sildenafil 50 mg daily 1 hour prior to sexual activity. He states that he prefers a regimen that requires the "least number of pills per day." Which regimen would be the *best* for this antiretroviral-naïve patient?

- A. Tenofovir + emtricitabine + efavirenz
- B. Tenofovir + emtricitabine + rilpivirine
- C. Tenofovir + emtricitabine + elvitegravir + cobicistat
- D. Abacavir + lamivudine + dolutegravir
- E. Tenofovir + emtricitabine + atazanavir

2. Which of the following is/are true regarding cobicistat?

- A. Cobicistat is a pharmacokinetic enhancer that is administered with raltegravir.
- B. Cobicistat is an integrase inhibitor with potent antiviral activity.

- C. Cobicistat has a very low potential for drug interactions.
- D. Cobicistat is a pharmacokinetic enhancer that is administered with elvitegravir.
- E. A and C

3. Which of the following recommended regimens for antiretroviral naïve patients should be avoided if the baseline HIV RNA is greater than or equal to 100,000 copies/mL (100×10^6 copies/L)?

- A. Tenofovir + emtricitabine + efavirenz
- B. Tenofovir + emtricitabine + elvitegravir + cobicistat
- C. Tenofovir + emtricitabine + atazanavir + ritonavir
- D. Tenofovir + emtricitabine + rilpivirine
- E. Tenofovir + emtricitabine + dolutegravir

4. Which of the following is/are commonly associated with the use of atazanavir?

- A. Neuropsychiatric events
- B. Hyperbilirubinemia
- C. Hyperphosphatemia
- D. A and B only
- E. A, B, and C

5. A patient in clinic was recently started on Atripla. Which of the following is an appropriate counseling point review prior to initiation of therapy?

- A. Take this medication with a high fat meal to ensure adequate absorption

- B. Take this medication in the morning 1 hour before breakfast
- C. Take this medication on an empty stomach at bedtime
- D. Take this medication twice daily on an empty stomach
- E. Take this medication at any point throughout the day, whenever you remember

6. Which of the following adverse effects are associated with the use of tenofovir?

- A. Decreased bone mineral density
- B. Renal impairment
- C. Hyperbilirubinemia
- D. A and B
- E. A and C

7. ML is antiretroviral-naïve and will initiate antiretroviral therapy today. His current medications include simvastatin 40 mg daily, digoxin 0.25 mg daily, atenolol 50 mg daily, and intranasal fluticasone 100 mcg daily. Which of the following regimens is *MOST* likely to result in significant drug interactions with ML's current medications?

- A. Tenofovir + emtricitabine + raltegravir
- B. Tenofovir + emtricitabine + elvitegravir + cobicistat
- C. Tenofovir + emtricitabine + dolutegravir
- D. None of the above. Integrase inhibitors have a relatively low potential for drug interactions
- E. All of the above. Integrase inhibitors are potent cytochrome P450 3A4 inhibitors.

8. A recently diagnosed patient with a history of poorly controlled epilepsy on a stable dose of phenytoin 300 mg twice daily needs to initiate antiretroviral treatment (HIV RNA of 150,000 copies/mL [150×10^6 copies/L], CD4⁺ count of 350 cells/mm³ [350×10^6 /L]). To avoid drug–drug interactions that will either decrease the efficacy of her antiretrovirals or affect her phenytoin concentrations, which preferred antiretroviral regimen could be considered?

- A. Tenofovir + emtricitabine + efavirenz
- B. Tenofovir + emtricitabine + raltegravir
- C. Abacavir + lamivudine + darunavir/ritonavir
- D. Abacavir + lamivudine + nevirapine
- E. Atazanavir/ritonavir + raltegravir

9. Which of the following situations does *not* increase the risk of HIV transmission with vaginal intercourse?

- A. Active herpes lesions
- B. High viral load in an HIV-infected partner
- C. Uncircumcised male partner
- D. Use of a female condom
- E. Sporadic condom use only

10. Which of the following antiretrovirals is *least* likely to cause significant drug–drug interactions with concomitant medications that are substrates of CYP450 cytochromes?

- A. Raltegravir
- B. Efavirenz
- C. Atazanavir
- D. Maraviroc
- E. Nevirapine

11. When obtaining HIV resistance testing, which of the following should be considered?

- A. Virtual phenotype is the preferred test.
- B. Viral load should be greater than 1000 copies/mL (1.0×10^6 copies/L).
- C. CD4⁺ count should be less than 100 cells/mm³ (100×10^6 /L).
- D. Patients should be currently receiving or have received antiretrovirals within the past 4 weeks.
- E. CD4⁺ count should be greater than 100 cells/mm³ (100×10^6 /L).

12. A woman who presents 6 weeks' pregnant and is currently taking emtricitabine, tenofovir, and efavirenz should have which of the following changes made to her antiretroviral regimen:

- A. Change efavirenz to a boosted PI
- B. Discontinue all antiretrovirals during pregnancy
- C. Change to zidovudine only
- D. Add a boosted PI to the current regimen
- E. Change the tenofovir to stavudine

13. Which of the following antiretrovirals is the *least* likely to cause hyperlipidemia?

- A. Darunavir
- B. Efavirenz
- C. Saquinavir
- D. Atazanavir
- E. Indinavir

14. Which of the following regimens contains a combination of antiretrovirals that should be avoided?

- A. Lamivudine + abacavir + lopinavir/ritonavir
- B. Didanosine + stavudine + efavirenz
- C. Tenofovir + lamivudine + rilpivirine

D. Emtricitabine + tenofovir + efavirenz

E. Lamivudine + zidovudine + raltegravir

15. Risk factors for HIV infection do *not* include?

A. Men who have sex with men (MSM)

B. Sharing needles

C. Breast-feeding by an HIV-positive mother

D. Kissing

E. Unprotected heterosexual vaginal intercourse

Answers

1. D

2. D

3. D

4. B

5. C

6. D

7. B

8. B

9. D

10. A

11. D

12. A

13. D

14. B

15. D