

Chapter 75, Self-Assessment Questions

1. SJ is a 42-year-old man who has a yearly purified protein derivative (PPD) skin test performed because he works at a long-term care facility. Forty-eight hours after the PPD test was placed, he had a 12-mm area of induration. This is the first time he has reacted to this test. His chest radiograph is negative. Which one of the following is appropriate in view of SJ's PPD response?
 - A. No treatment is necessary and SJ should have another PPD test done in 1 year.
 - B. Another PPD test should be performed in 1 week to see if this is a booster effect.
 - C. SJ should be monitored closely, but no treatment is necessary because he is over 35 years of age.
 - D. SJ should be started on isoniazid 300 mg daily for 6 months.
2. What LTBI treatment regimen should be recommended for patients who have a positive IFN- γ test and have been exposed to isoniazid resistant TB?
 - A. Isoniazid and rifapentine for 3 months
 - B. Isoniazid, rifampin, and ethambutol or pyrazinamide for 4 months
 - C. Rifampin for 4 months
 - D. Rifampin for 6 months
3. Treatment for an HIV-positive patient with TB should:
 - A. Be delayed until the patient's CD4 count is more than 1000 cells/mm³ (10^9 /L)
 - B. Be at least 6 months
 - C. Consist of higher doses of antituberculosis medications
 - D. Be initiated 6 months after antiretroviral therapy is started

4. Rifabutin should be chosen over rifapentine or rifampin when a patient is being treated for TB and is on certain combined antiretroviral therapy (cART) regimens because it:

- A. Has a better side effect profile in HIV-positive patients
- B. Is less likely to induce hepatic clearance of the cART drugs
- C. Has a lower risk of anterior uveitis in HIV-positive patients
- D. Is easier to obtain serum concentrations of rifabutin

5. A 70-year-old HIV positive Vietnamese man was recently infected with *M. tuberculosis* 3 months ago. He is a current smoker and has a history of IV drug use. His past medical history includes small cell lung cancer, hypertension, and diabetes mellitus and arthritis. Which one of the following is his strongest risk factor for the development of TB disease?

- A. Asian race
- B. Age > 65 years old
- C. HIV positive status
- D. Recent infection with *M. tuberculosis*

6. A 45-year-old man with chronic liver disease secondary to alcoholism is diagnosed with pulmonary tuberculosis. His AST and ALT are 100 IU/L and 56 IU/L (1.67 μ kat/L and 0.93 μ kat/L), respectively. He continues to drink at least six pack of beer daily. Which one of the following would be the most appropriate options for treatment of his tuberculosis at this time, in addition to more frequent monitoring of liver function tests?

- A. Treat the patient with the standard four drug regimen (isoniazid, rifampin, pyrazinamide, ethambutol)
- B. Modify the patient's regimen to exclude any hepatotoxic drugs
- C. Discuss abstinence during the period of treatment for TB

D. Administer a once weekly dosing as this is recommended in patients with elevated liver function tests.

7. A 40-year-old woman currently on treatment for tuberculosis disease comes to the pharmacy and states she shows a positive pregnancy test despite being on oral contraceptives. Which one of the following drugs most likely caused her to become pregnant?

A. Pyrazinamide

B. Isoniazid

C. Ethambutol

D. Rifampin

8. Therapeutic drug monitoring (TDM) may be useful especially when TB patients:

A. Are slow to respond to standard treatment

B. Have elevated liver function tests

C. Are infected with isoniazid resistant strains of TB

D. Are receiving three times weekly regimens

9. An 48-year-old malnourished woman patient is started on treatment of latent tuberculosis.

Based on the CDC treatment guidelines, what is the most appropriate recommendation?

A. Vitamin B6 daily

B. Vitamin B12 daily

C. Vitamin B12 three times a week

D. Rifampin instead of isoniazid for LTBI

10. A hospitalized patient's sputum sample is sent to the laboratory for mycobacterial (AFB) smear and culture. The first AFB smear and IGRA is reported as negative, the culture is still pending. Which of the following would be true?

- A. The patient does not have tuberculosis disease.
 - B. The culture is expected to be negative also.
 - C. The patient can be removed from isolation after the three AFB smears are negative.
 - D. The patient can be removed from isolation after the first AFB smear is negative.
11. A patient newly diagnosed culture positive pulmonary TB caused by a drug-susceptible organism has completed 2 months of initial phase treatment with isoniazid, rifampin, pyrazinamide, and ethambutol daily. He is responding well to therapy. Which of the following regimens would you recommend for continuation phase of treatment?
- A. Isoniazid and pyrazinamide × 4 months
 - B. Ethambutol and rifampin × 4 months
 - C. Isoniazid and rifampin × 6 months
 - D. Isoniazid and rifampin × 4 months
12. A 64-year-old man with a history of congestive heart failure is starting treatment for tuberculosis. Which one of the following anti-TB medications requires ECG monitoring if used in this patient?
- A. Bedaquiline
 - B. Cycloserine
 - C. Pyrazinamide
 - D. Ethambutol
13. An otherwise healthy 30-year-old woman with active TB has been anti-TB medication for the past 6 weeks (RIPE: rifampin, isoniazid, pyrazinamide, and ethambutol). However, for the past 2 weeks, she has noticed trouble reading phone numbers in the phone book and has had

trouble reading the newspaper. On exam, her visual acuity and red/green perception are diminished. Which of the following is the most likely cause of her symptoms?

- A. Ethambutol
- B. Rifampin
- C. Isoniazid
- D. TB dissemination to her eyes

14. The best way to ensure TB patients take their medication is to:

- A. Have someone watch the patient swallow each dose of medication or DOT
- B. Measure serum drug levels
- C. Make sure the patient understands the importance of taking the medicine
- D. Ask patients if they are taking their medications

15. Assuming an HIV-negative patient becomes culture negative after 1 month of treatment, drug regimens that contain isoniazid and rifampin (plus 2 months of pyrazinamide) generally should be continued for a minimum of :

- A. 4 months
- B. 6 months
- C. 9 months
- D. 12 months

Answers

1. D

2. C

3. B

4. B

5. C

6. A

7. D

8. A

9. A

10. C

11. D

12. A

13. A

14. A

15. B