OBJECTIVES

Upon completion of this training, participants will be able to:

1) describe the basic pathophysiology and transmission of tuberculosis and use this knowledge to inform clinical care

2) identify key populations at risk for tuberculosis infection and tuberculosis disease based on current epidemiology data to inform prioritization of populations for testing and treatment in the U.S.

3) recognize the most common pulmonary and systemic signs and symptoms of tuberculosis to more effectively diagnose tuberculosis disease

4) apply CDC's national guidelines on use of rapid diagnostics for tuberculosis to optimize early diagnosis and reduce disease transmission

5) initiate treatment based on radiologic findings, lab results, risk factors and symptoms to optimize clinical outcomes

6) list three common technical issues one should assess when reading a chest radiograph that will allow practitioners to make a more accurate diagnosis based on these readings

7) identify the typical patterns suggestive of tuberculosis on plain chest radiographs that should alert practitioners to "think TB" leading to more timely and appropriate evaluations of tuberculosis suspects

8) apply the general principles of tuberculosis treatment to best evaluate and ensure appropriate treatment for tuberculosis

9) utilize interventions to prevent transmission of tuberculosis in health care facilities to protect healthcare workers who work with tuberculosis patients

10) apply the three levels of TB Infection Control Measures described in the CDC Guidelines to protect healthcare workers, patients, and visitors from airborne tuberculosis

11) anticipate drug-drug interactions involving anti-mycobacterials, HIV medications, and immunosuppressants to optimize therapy

12) recognize and diagnose immune reconstitution inflammatory syndrome (IRIS) to improve patients' safety and quality of life during therapy

13) address timing of antiretroviral or immunomodulatory therapy during TB treatment to improve outcomes related to other conditions

14) list at least 4 extrapulmonary manifestations of TB and potential approaches to confirm the diagnosis)

15) explain the key differences in clinical presentation, infectiousness, and diagnosis (including interpretation of x-rays) in children versus adults to best evaluate and ensure timely diagnosis in this population

16) state the differences in treatment of TB and LTBI in children as compared to adults to achieve optimum pediatric patient outcomes.

17) list techniques to make children's medication dosing more effective and implement these techniques in their pediatric patients

18) explain factors which could lead to increased multidrug-resistant tuberculosis and how best to prevent and decrease the possibilities

19) describe the rationale for the multidrug-resistant tuberculosis treatment guidelines and apply them to achieve optimal patient outcomes

20) describe how to adjust tuberculosis treatment for patients with hepatic and renal impairment to improve patient safety during treatment

21) explain tuberculosis treatment for pregnant patients to optimize the best outcomes for this population