TB Elimination

Treatment of Drug-Susceptible Tuberculosis Disease in HIV-Infected Persons

Introduction

In February 2003, the American Thoracic Society (ATS), the Centers for Diseases Control and Prevention (CDC), and the Infectious Diseases Society of America (IDSA) released new guidelines for the treatment of TB. This fact sheet will provide key points from these guidelines; however, please refer to the *Treatment of Tuberculosis*[1] for complete recommendations.

The management of HIV-related tuberculosis (TB) disease is complex. Although the treatment of TB in persons with HIV is essentially the same as for patients without HIV, there are some important differences.

Recommended Regimen

The recommended treatment of TB disease in HIV-infected adults (when the disease is caused by organisms that are known or presumed to be susceptible to first-line drugs) is a 6-month regimen consisting of

- An **initial phase** of isoniazid (INH), a rifamycin (see Drug Interactions below), pyrazinamide (PZA), and ethambutol (EMB) for the first 2 months.
- A **continuation phase** of INH and a rifamycin for the last 4 months.

Patients with advanced HIV (CD4 counts < 100/ml) should be treated with daily or three-times-weekly therapy in both the initial and the continuation phases. Twice weekly therapy may be considered in patients with less-advanced immunosuppression (CD4 counts ≥ 100/ml). **Once-weekly INH/rifapentine in the continuation phase should not be used in any HIV-infected patient.**

Six months should be considered the minimum duration of treatment for adults with HIV, even for patients with culture-negative TB. Prolonging treatment to 9 months (extend continuation phase to 7 months) for HIV-infected patients with delayed response to therapy (e.g., culture positive after 2 months of treatment) should be strongly considered.

Drug Interactions

A major concern in treating TB in HIV-infected persons is the interaction of rifampin (RIF) with certain antiretroviral agents (some protease inhibitors [PIs] and nonnucleoside reverse transcriptase inhibitors [NRTIs]). **Rifabutin**, which has fewer problematic drug interactions, may be used as an alternative to RIF.

As new antiretroviral agents and more pharmacokinetic data become available, these recommendations are likely to be modified.

Case Management

Directly observed therapy (DOT) and other adherence promoting strategies should be used in all patients with HIV-related TB. Whenever possible, the care for HIV-related TB should be provided by or in consultation with experts in management of both TB and HIV. The care for persons with HIV-related TB should include close attention to the possibility of TB treatment failure, antiretroviral treatment failure, paradoxical reactions of TB (e.g., temporary worsening of signs or symptoms of TB), side effects for all drugs used, and drug toxicities associated with increased serum concentrations of rifamycins.

For More Information

1. American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America. Treatment of Tuberculosis. *Am J Respir Crit Care Med* 2003; 167: 603-662. http://www.thoracic.org/adobe/statements/treattb.pdf

2. Guidance documents for the medical management of HIV http://www.aidsinfo.nih.gov/guidelines/

3. Updated Guidelines for the Use of Rifabutin or Rifampin for the Treatment and Prevention of Tuberculosis Among HIV-Infected Patients Taking Protease Inhibitors or Nonnucleoside Reverse Transcriptase Inhibitors. *MMWR* 2000;49 (No. 9) http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4909a4.htm