



Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV.

Downloaded from <https://aidsinfo.nih.gov/guidelines> on 4/3/2020

Visit the *AIDSinfo* website to access the most up-to-date guideline.

Register for e-mail notification of guideline updates at <https://aidsinfo.nih.gov/e-news>.

What's New in the Guidelines

Updates to the *Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV*

The *Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV* document is published in an electronic format that can be easily updated as relevant changes in prevention and treatment recommendations occur.

The editors and subject matter experts are committed to timely changes in this document because so many health care providers, patients, and policy experts rely on this source for vital clinical information.

All changes are developed by the subject matter groups listed in the document (changes in group composition are also promptly posted). These changes are reviewed by the editors and by relevant outside reviewers before the document is altered. Major revisions within the last 6 months are as follows:

February 11, 2020

1. Table 8. Summary of Pre-Clinical and Human Data on, and Indications for, Opportunistic Infection Drugs During Pregnancy: The Panel updated this table to include the following key changes:

- Information on several new drug combinations for hepatitis C treatment have been added, including dasabuvir/ombitasvir/paritaprevir/ritonavir, elbasvir/grazoprevir, glecaprevir/pibrentasvir, ombitasvir/paritaprevir/ritonavir, sofosbuvir/velpatasvir, and sofosbuvir/velpatasvir/voxilaprevir. Data on the use of these new drugs in pregnancy are limited but they can be used if the benefit is felt to outweigh the potential risks. However, ribavirin is contraindicated during pregnancy so regimens including ribavirin should not be used in pregnant women.
- Information on isavuconazole, a new oral antifungal, has been added. Use in pregnancy is not recommended.
- Information on rifapentine has been added. Given malformations and fetal loss noted in animal studies, use of alternate drugs for tuberculosis treatment and prophylaxis in pregnancy are recommended.

November 21, 2019

1. Talaromycosis (formerly Penicilliosis): The Panel updated the text, epidemiology, diagnosis, treatment, and references throughout the section and made the following key changes:

- Primary prophylaxis is only recommended for patients with HIV with CD4 counts <100 cells/mm³ who reside in the highly endemic regions in northern Thailand, southern China, and northern and southern Vietnam who are unable to take antiretroviral therapy (ART) for whatever reason or have treatment failure without access to effective antiretroviral options (**BI**). The drug choices for prophylaxis are oral itraconazole 200 mg once daily (**BI**) or oral fluconazole 400 mg once weekly (**BII**). Primary prophylaxis is not recommended for patients who are on or about to start effective ART, and it is not recommended in geographic areas outside of the mentioned highly endemic regions (**AIII**).
- The recommended induction therapy for all patients, regardless of disease severity, is amphotericin B, preferably liposomal amphotericin B 3 to 5 mg/kg body weight/day where available, or deoxycholate amphotericin B 0.7 mg/kg body weight/day, intravenously for 2 weeks (**AI**).
- Induction therapy should be followed by consolidation therapy with oral itraconazole, 200 mg every 12 hours for a subsequent duration of 10 weeks (**AI**). After this period, maintenance therapy (or secondary prophylaxis) with oral itraconazole 200 mg/day is recommended to prevent recurrence until the CD4 count rises above 100 cells/mm³ for at least 6 months (**AII**).

October 22, 2019

1. **Tables:** The Panel updated the following tables relating to drugs used for the treatment of opportunistic infections listed in these guidelines. The updates include information on new drugs added to the guidelines as well as information derived from product labels and published literature since the last revision.
 - [Table 5](#). Significant Pharmacokinetic Interactions between Drugs Used to Treat or Prevent Opportunistic Infections
 - [Table 6](#). Common or Serious Adverse Reactions Associated with Systemically Administered Drugs Used to Treat Opportunistic Infections
 - [Table 7](#). Dosing Recommendations for Drugs Used to Treat or Prevent Opportunistic Infections That Require Dosage Adjustment in Patients with Renal Insufficiency

October 10, 2019

1. **Community-Acquired Pneumonia (formerly Bacterial Respiratory Disease):** The Panel updated the text, epidemiology, strength of recommendations, and references throughout the section and made the following key changes:
 - Added a Microbiology section with updated risk factors for drug-resistant pathogens, particularly methicillin-resistant *Staphylococcus aureus* (MRSA) and *Pseudomonas aeruginosa*
 - Added a clear recommendation section for diagnostic testing based on the severity of community-acquired pneumonia (CAP), including the use of blood cultures, sputum stains and cultures, and urinary antigen testing
 - Added considerations regarding the use of rapid nasal swabs for MRSA in diagnostic evaluation and empiric treatment
 - Provided an updated summary of the general approach to the treatment of bacterial pneumonia in people living with HIV
 - Reviewed treatment recommendations for concurrence with the 2019 American Thoracic Society (ATS)/ Infectious Diseases Society of America (IDSA)/Centers for Disease Control and Prevention (CDC) CAP guidelines
 - Expanded the discussion of pneumonia severity scales in people living with HIV
 - Commented on indications for telavancin and ceftaroline
 - Added discussion regarding the use of corticosteroids in CAP, including caution with influenza pneumonia and limited data to support use in CAP for people living with HIV

September 27, 2019

1. ***Mycobacterium tuberculosis* Infection and Disease:** The Panel updated this section to reflect the availability of results from a number of new studies in tuberculosis (TB) diagnostics, therapeutics, pharmacology, and drug resistance. Several key highlights include:
 - The 3HP regimen (weekly isoniazid plus rifapentine for 3 months) for the treatment of latent tuberculosis infection (LTBI) is now recommended as an alternative regimen when provided as self-administered therapy or directly observed therapy.
 - Four months of daily rifampin monotherapy is now recommended for the treatment of LTBI in patients who cannot receive isoniazid.
 - When dolutegravir is given with concurrent rifampin, it is recommended that the dose be increased to 50 mg twice daily.
 - Bictegravir is not recommended to be given with rifamycin-containing TB treatment.

- Isoniazid preventive therapy is not recommended for pregnant women until after delivery unless they are close contacts of a known patient with active TB disease.
- Prednisone is no longer recommended for the treatment of TB pericarditis.
- Isoniazid-monoresistant TB should be treated with 6 months of rifampin, pyrazinamide, ethambutol, and either levofloxacin or moxifloxacin.
- For patients at high risk for developing TB-associated immune reconstitution inflammatory syndrome (TB-IRIS), pre-emptive prednisone is recommended as adjunctive therapy with the initiation of antiretroviral therapy.

September 13, 2019

1. **Histoplasmosis:** The Panel updated this section and made the following key changes:
 - For both primary and secondary prophylaxis, an undetectable HIV viral load as well as a CD4 count >150 cells/mm³ should be present for 6 months before therapy is stopped in patients taking antiretroviral therapy (ART).
 - For the treatment of patients who do not tolerate itraconazole, voriconazole and posaconazole are discussed in greater detail than before; suggested doses are given, as well as therapeutic serum concentrations that should be sought.
 - Data on the measurement of *Histoplasma* antigen in serum, urine, bronchoalveolar lavage (BAL) fluid, and cerebrospinal fluid (CSF) is discussed more extensively than previously and has been updated with current terminology using ng/mL instead of units.

September 5, 2019

1. **Varicella-Zoster Virus Disease:** The Panel updated the text, epidemiology, and references throughout the section and made the following key changes:
 - Guidance on the use of two available vaccines (recombinant zoster vaccine [RZV, Shingrix] and zoster vaccine live [ZVL, Zostavax]) to prevent herpes zoster (shingles) in persons with HIV aged 50 years and older is provided.
 - RZV (Shingrix) is recommended to prevent herpes zoster using a two-dose schedule (intramuscular injection at Month 0 and Month 2) for adults with HIV aged 50 years and older.
 - RZV is preferred over ZVL (Zostavax) for prevention of herpes zoster.
 - If RZV is not available or cannot be given because of allergy or intolerance, ZVL can be given as a single subcutaneous dose among adults with CD4 counts ≥ 200 cells/mm³. ZVL is **contraindicated** for persons with CD4 counts < 200 cells/mm³.
 - The clinical description and section on the treatment of ocular complications of varicella-zoster virus infection have been expanded.