

Table 1. Chemoprophylaxis to Prevent First Episode of Opportunistic Disease

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This table provides recommendations for the use of chemoprophylaxis to prevent the first episode of opportunistic disease. For the use of immunizations to prevent certain infections in people with HIV, please refer to the [Immunizations for Preventable Diseases in Adults and Adolescents With HIV](#) section.

Opportunistic Infections	Indication	Preferred	Alternative
Coccidioidomycosis	A new positive <i>Coccidioides</i> IgM or IgG test in patients who previously tested negative; do not have signs, symptoms, or laboratory abnormalities compatible with active disease; and have CD4 count <250 cells/mm ³ (AIII)	Fluconazole 400 mg PO daily (AIII)	None
Cystoisosporiasis	CD4 count <200 cells/mm ³ and living in or traveling to regions endemic for <i>Cystoisospora belli</i> (CII)	TMP-SMX (160 mg/800 mg) PO three times weekly (AI), or TMP-SMX (160 mg/800 mg) PO daily (AI)	None
<i>Histoplasma capsulatum</i> Infection	CD4 count <150 cells/mm ³ and at high risk because of occupational exposure or living in a community with a hyperendemic rate of histoplasmosis (>10 cases per 100 person-years) (BI)	Itraconazole 200 mg PO daily (BI)	None
Malaria	Travel to disease-endemic area	Recommendations are the same as for people without HIV. Recommendations are based on the region of travel, malaria risks, and drug susceptibility in the region. Refer to the CDC's Yellow Book for the most recent recommendations based on region and drug susceptibility.	None

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<p><i>Mycobacterium avium</i> Complex (MAC) Disease</p>	<p>CD4 count <50 cells/mm³ AND not receiving ART, or remains viremic on ART, or has no options for a fully suppressive ART regimen (AI)</p> <p>Not recommended for those who immediately initiate ART after HIV diagnosis (AII)</p> <p>Disseminated MAC disease should be ruled out before starting primary prophylaxis. See the MAC section for more information.</p>	<p>Azithromycin 1,200 mg PO once weekly (AI), <i>or</i></p> <p>Clarithromycin 500 mg PO twice daily (AI), <i>or</i></p> <p>Azithromycin 600 mg PO twice weekly (BIII)</p>	<p>Rifabutin (dose adjustment may be necessary with some ARV drugs, and rifabutin is not recommended if used with certain ARV drugs)^a (BI); rule out active TB before starting rifabutin to avoid monotherapy in the setting of TB.</p> <p>For information on drug–drug interactions between antimycobacterial agents (e.g. clarithromycin and rifabutin) and concomitant ARVs, refer to the Liverpool HIV Drug Interaction Checker.</p>
<p><i>Mycobacterium tuberculosis</i> Infection (TB) (i.e., treatment of latent TB infection [LTBI])</p>	<p>Positive screening test for LTBI,^b no evidence of active TB, and no prior treatment for active TB or LTBI (AI), <i>or</i></p> <p>Close contact with a person with infectious TB (with no evidence of active TB), regardless of screening test results and CD4 count (AII)</p> <p>For recommendations on management of drug interactions with ARVs, see the Dosing Recommendations for Use of ARV and Anti-TB Drugs When Treating Latent TB Infection table in the <i>Mycobacterium tuberculosis</i> Infection and Disease section and the Drug–Drug Interactions in the Adult and Adolescent Antiretroviral Guidelines.</p>	<p>3HP</p> <p>Rifapentine (see weight-based dosing below) plus INH 15 mg/kg (900 mg maximum) plus pyridoxine 50 mg PO once weekly for 12 weeks (AI)</p> <p><i>Weight-Based Rifapentine Dose</i></p> <ul style="list-style-type: none"> • Weighing 25.1–32 kg: 600 mg PO once weekly • Weighing 32.1–49.9 kg: 750 mg PO once weekly • Weighing >50 kg: 900 mg PO once weekly <p>Note: 3HP is recommended only for virally suppressed persons receiving EFV, RAL, or once daily DTG-based ARV regimen (AII).</p> <p><i>or</i></p> <p>3HR</p> <p>INH 300 mg plus rifampin 600 mg plus pyridoxine 25–50 mg PO daily for 3 months (AI)</p>	<p>INH 300 mg plus pyridoxine 25–50 mg PO daily for 6–9 months (AII), <i>or</i></p> <p>4R: Rifampin 600 mg PO daily for 4 months (BI), <i>or</i></p> <p>1HP: Rifapentine (see weight-based dosing below) plus INH 300 mg plus pyridoxine 25–50 mg) PO once daily for 4 weeks (BI)</p> <p>Weight-Based Rifapentine Dose</p> <ul style="list-style-type: none"> • <i>Weighing</i> <35 kg: 300 mg PO once daily • <i>Weighing</i> 35–45 kg: 450 mg PO once daily • <i>Weighing</i> >45 kg: 600 mg PO once daily <p>Note: 1HP is recommended only for patients receiving an efavirenz-based ARV regimen (AI).</p> <p>For persons exposed to drug-resistant TB, select anti-TB drugs after consultation with experts and public health authorities (AIII).</p>

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<p><i>Pneumocystis</i> Pneumonia (PCP)</p>	<p>Individuals not on ART or starting ART with CD4 count <200 cells/mm³ (AI)</p> <p>Individuals currently on ART with either—</p> <ul style="list-style-type: none"> • CD4 count <100 cells/mm³ regardless of HIV RNA (AIII), or • CD4 count 100–200 cells/mm³ and HIV RNA consistently above the detection limit of the assay used (AIII) <p>Note: Patients who are receiving pyrimethamine/ sulfadiazine for treatment or suppression of toxoplasmosis do not require additional PCP prophylaxis (AII).</p>	<p>TMP-SMX 1 DS tablet PO daily (AI), or</p> <p>TMP-SMX 1 SS tablet PO daily (AI)</p> <p>Note: TMP-SMX also confers protection against toxoplasmosis and some protection against many respiratory bacterial infections.</p>	<p>The following regimens can be used regardless of whether the person is seropositive or seronegative for <i>Toxoplasma gondii</i>:</p> <ul style="list-style-type: none"> • TMP-SMX 1 DS PO three times weekly (BI), or • Dapsone^e 50 mg PO daily with pyrimethamine^d 50 mg plus leucovorin 25 mg PO weekly (BI), or • Dapsone^e 200 mg plus pyrimethamine^d 75 mg plus leucovorin 25 mg PO weekly (BI), or • Atovaquone 1,500 mg PO daily with food (BI) <p>The following regimens should only be used if the person is seronegative for <i>Toxoplasma gondii</i>:</p> <ul style="list-style-type: none"> • Dapsone^e 100 mg PO daily or 50 mg PO twice daily (BI), or • Aerosolized pentamidine 300 mg via Respigard II nebulizer every month (BI), or • IV pentamidine 300 mg every 28 days (CIII)
<p>Syphilis</p>	<p>Presumptive treatment is indicated if a sex partner is diagnosed with primary, secondary, or early latent syphilis.</p> <ul style="list-style-type: none"> • Individuals sexually exposed ≤90 days before the partner’s diagnosis should be presumptively treated for early syphilis, regardless of syphilis serologic status (AII). • Individuals sexually exposed >90 days before the partner’s diagnosis should be presumptively treated if syphilis serologic test results are not available immediately and the opportunity for follow-up is uncertain (AIII). 	<p>Benzathine penicillin G 2.4 million units IM for one dose (AII)</p>	<ul style="list-style-type: none"> • Doxycycline 100 mg PO twice daily for 14 days (BII), or • Ceftriaxone 1 g IM or IV daily for 10–14 days (BII) <p>For patients allergic to penicillin:</p> <ul style="list-style-type: none"> • People with penicillin allergy whose adherence or follow-up cannot be ensured should be desensitized and treated with benzathine penicillin G (AIII). • Note: Skin testing for penicillin allergy can be useful, if available. See Syphilis for details.

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Talaromycosis (Penicilliosis)	<p>People with (1) CD4 cell counts <100 cells/mm³ and who are not taking ART or have treatment failure without access to effective ART options or (2) CD4 counts ≥100 cells/mm³ but have a condition that suppresses T-cell function, AND who either—</p> <ul style="list-style-type: none"> Reside in the hyperendemic regions in northern Thailand, throughout Vietnam, or in southern China (particularly in highland regions during the rainy humid months) (BI) <i>or</i> Are from countries outside of the hyperendemic region and must travel to the region (BIII) 	<p>For people who reside in hyperendemic areas:</p> <ul style="list-style-type: none"> Itraconazole 200 mg PO once daily (BI) <p>For those traveling to the hyperendemic regions:</p> <ul style="list-style-type: none"> Begin itraconazole 200 mg PO once daily 3 days before travel and continue for 1 week after leaving the hyperendemic area (BIII). 	<p>For people who reside in hyperendemic areas:</p> <ul style="list-style-type: none"> Fluconazole 400 mg PO once weekly (BII) <p>For those traveling to the hyperendemic regions:</p> <ul style="list-style-type: none"> Take the first dose of fluconazole 400 mg 3 days before travel, continue 400 mg once weekly, and take the final dose after leaving the hyperendemic area (BIII).
<i>Toxoplasma gondii</i> Encephalitis	<p><i>Toxoplasma</i> IgG-positive patients with CD4 count <100 cells/mm³ (AII)</p> <p>Note: All regimens recommended for primary prophylaxis against toxoplasmosis also are effective as PCP prophylaxis.</p>	TMP-SMX 1 DS PO daily (AII)	<p>TMP-SMX 1 DS PO three times weekly (BII), <i>or</i></p> <p>TMP-SMX 1 SS PO daily (BIII), <i>or</i></p> <p>Dapsone^c 50 mg PO daily plus (pyrimethamine^d 50 mg plus leucovorin 25 mg) PO weekly (BI), <i>or</i></p> <p>(Dapsone 200 mg plus pyrimethamine^d 75 mg plus leucovorin 25 mg) PO weekly (CI), <i>or</i></p> <p>Atovaquone 1,500 mg PO daily (CIII), <i>or</i></p> <p>(Atovaquone 1,500 mg plus pyrimethamine^d 25 mg plus leucovorin 10 mg) PO daily (CIII)</p>

^a Refer to the [Dosing Recommendations for Use of ARV and Anti-TB Drugs for Treatment of Active Drug Sensitive TB](#) table in the *Mycobacterium tuberculosis* section for dosing recommendations.

^b Screening tests for latent tuberculosis infection include tuberculin skin tests and interferon-gamma release assays.

^c Patients should be tested for glucose-6-phosphate dehydrogenase (G6PD) before administration of dapsone. An alternative agent should be used in patients found to have G6PD deficiency.

^d Refer to [Daraprim Direct](#) for information regarding how to access pyrimethamine.

For information regarding the evidence ratings, refer to the [Rating System for Prevention and Treatment Recommendations](#) in the Introduction section of the Adult and Adolescent Opportunistic Infection Guidelines.

Key: ART = antiretroviral therapy; ARV = antiretroviral; CD4 = CD4 T lymphocyte; CDC = Centers for Disease Control and Prevention; DS = double strength; DTG = dolutegravir; EFV = efavirenz; IgG = immunoglobulin G; IgM = immunoglobulin M; IM = intramuscular; INH = isoniazid; IV = intravenous; LTBI = latent tuberculosis infection; MAC = *Mycobacterium avium* complex; PCP = *Pneumocystis pneumonia*; PO = orally; RAL = raltegravir; SS = single strength; TB = tuberculosis; TMP-SMX = trimethoprim-sulfamethoxazole