



Information, Inspiration and Advocacy  
for People Living with HIV/AIDS

**Project Inform  
Fact Sheet**

# **Management of Opportunistic Infections Chart**

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Content Creation Date: 2/98

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The following chart is intended as a very general guide to managing opportunistic infections. Obviously, it can't substitute for a detailed discussion of each infection, and anyone dealing actively with one or more of these infections should call the Project Inform Hotline for more comprehensive information and then consult with your primary care provider.

If the standard drug for prevention or treatment fails, it may be necessary to try various experimental therapies. The prophylaxis and treatment of opportunistic infections is not an exact science, and often requires a certain amount of complicated trial-and-error to determine the best regimen for a particular patient.

There is often a noticeable gap between the therapies prescribed by experienced clinicians with large HIV practices and those prescribed by clinicians with less HIV experience. There may be occasions when patients will need to bring experimental therapies to the attention of providers who haven't previously prescribed them.

The availability of various medications referenced on this chart can be problematic. A limited number are approved for specific HIV use; others are approved for non-HIV use but may be prescribed for HIV applications. Most are available either through clinical trials, expanded-access or compassionate-use programs. The access individuals have to prescription drugs may vary widely according to whether their health care is provided by private insurers or by government agencies.

As more drugs have become available for the treatment and prevention of opportunistic infections, it is time to become more aware of possible drug interactions. Most people are already aware of the interaction between AZT and ganciclovir which results in increased bone marrow suppression but many other drug interactions exist. Many drugs are metabolized (broken down) in the liver by a specific enzyme known as the P450 cytochrome and therein lies most of the problems. Drugs that require this enzyme to be metabolized can cause other drug levels to be substantially altered. Drugs that are metabolized in the liver include clarithromycin, rifabutin, fluconazole, itraconazole, nevirapine, delavirdine, saquinavir, ritonavir, indinavir, nelfinavir and the H2 blockers cimetidine (Tagamet™) and ranitidine (Zantac™). It is particularly important for people who are taking any of these drugs, especially for people with chronic liver disease, to monitor drug toxicity/efficacy and obtain specific drug levels in serum, if possible, so that, if necessary, dosages can be adjusted. For a complete list of potential HIV drug interactions, please call the Hotline and ask for the [Drug Interactions Fact Sheet](#).

Most of the numbers listed on the last page are intended to be used by clinicians only, though inquiries by patients are sometimes answered. Aside from clinical trials, the only way a patient can access a special program is through their physician.

- \*Note: This publication is updated periodically. If the date on the upper righthand corner of this page is greater than three months beyond the date you are reviewing this chart, please call our hotline for an updated version.

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## Mycobacterium Avium Complex (MAC or MAI) a bacterial infection

Symptoms of Active Infection	<p><b>General:</b> persistent fever, night sweats, fatigue, weight loss, chronic diarrhea, anemia, thrombocytopenia (low platelets), abdominal pain, weakness, dizziness, nausea. Also, enlarged lymph glands (frequently on one side), enlarged liver and spleen, and soft tissue masses (especially in the thighs). May be <b>organ-specific or disseminated.</b></p>
Diagnostic Procedures	<p>Can be difficult to diagnose. Lab Tests: blood culture, sputum culture, stool culture, organ tissue biopsy and culture. Often treated prior to definitive diagnosis if smear positive for Acid Fast Bacilli (AFB). Elevated alkaline phosphatase may indicate MAC infection.</p>
Treatments (Tx) for Active Infection	<p><b>Clarithromycin 500mg BID or Azithromycin 500-600 mg/day (Monitor for resistance) in combo. with at least one of the following: Ethambutol, Ciprofloxacin, Rifabutin (monitor clarithromycin. blood levels). Amikacin(IV), Sparfloxacin (CT)(various combo's in CT).</b></p>
Prophylaxis (Px) and Maintenance (Mx)Options	<p>Risk of MAC increases when CD4 count is &lt;75 or 5%, Px: <b>Rifabutin FDA approved for Px at 300mg/day or Clarithromycin FDA approved for Px at 500 mg 2x/day (resistance may be an issue) and Azithromycin 1200 mg/week. Combination of azithromycin + rifabutin may be more effective than either drug alone. May also prevent resistance to the drugs. Mx: required after treatment for active disease. Treatment doses may be required.</b></p> <p><b>NOTE: <i>Tb skin test before starting prophylaxis</i></b></p>
Possible Side Effects	<p><b>Rifabutin:</b> rash, fever, GI distress, hemolysis, decreased WBC &amp; platelets, uveitis, joint pain. <b>Ethambutol:</b> liver toxicities, vision changes, vomiting, diarrhea. <b>Clofazimine:</b> skin discoloration, itchy, dry skin, rash. <b>Ciprofloxacin:</b> nausea, diarrhea, vomiting. <b>Amikacin:</b> kidney, liver tox., hearing loss. <b>Clarithromycin.:</b> nausea, reversible hearing loss. <b>Azithromycin:</b> Nausea, loose stools and hearing loss. <b>Sparfloxacin:</b> Photosensitivity.</p>

<b>Drug Interactions (and notes)</b>	Avoid alcohol with liver-toxic drugs. <b>Rifampin, Rifabutin, Clarithromycin</b> affects many drugs metabolized through liver including protease inhibitors. May also affect Methadone metabolism. <b>Ciprofloxacin</b> : avoid antacids. Cyclosporine or <b>Probenecid</b> : monitor kidney functions. <b>Amikacin</b> : avoid <b>ampho-B</b> , diuretics, penicillins. <b>Clindamycin</b> : avoid erythromycin. <b>Clarith.:</b> can reduce AZT levels by one third. <b>Rifabutin</b> can reduce <b>Clarith.</b> blood levels by 50%.
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Tuberculosis (TB)  
a bacterial infection

<b>Symptoms of Active Infection</b>	Similar to MAC. May be pulmonary (lungs), or extra-pulmonary (other organs) especially meningitis. Cough, weight loss, night sweats, fatigue, fever, swollen lymph nodes, or organ specific symptoms. Can occur at any CD4 cell range.
<b>Diagnostic Procedures</b>	PPD skin test with greater than 5mm reaction. Chest X-ray, Sputum smear, culture, and sensitivity, blood, bone marrow or liver cultures. See April '92 <i>PI Perspective</i> .
<b>Treatments (Tx) for Active Infection</b>	Treat with at least 3 oral drugs: <b>Isoniazid(INH)</b> , <b>Pyrazinamide(PZA)</b> and <b>Rifampin</b> ; when resistance suspected add <b>Ethambutol</b> ; if treatment failure or intolerant <b>Streptomycin (EA)</b> or <b>Amikacin</b> &/or <b>L-ofloxacin</b> or <b>Sparfloxacin</b> . Monitor for drug resistance.
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	Tb risk increases with PPD skin test of > 5 mm reaction, or history of positive PPD. Mx/Px: <b>Isoniazid 300 mg. (Take w/ Vitamin B6)</b> for 1 year (CT). <b>Rifampin 450-600 mg (by weight) w/ Pyrazinamide 50 mg/day (CT)</b> .
<b>Possible Side Effects</b>	<b>Isoniazid</b> : peripheral neuropathy and liver toxicity. <b>Rifampin</b> : liver & kidney tox., rash, discoloration of body fluids. <b>Pyrazinamide</b> : liver toxic, nausea, vomiting, diarrhea. <b>L-Ofloxacin</b> :GI disturbances, nausea, headache, and insomnia.
<b>Drug Interactions (and notes)</b>	Infection control important with active Tb. Yearly testing important, as Tb epidemic spreads. <b>Isoniazid</b> : avoid antabuse, <b>Ketoconazole</b> , tuna fish; monitor liver. See above for <b>Rifampin</b> & <b>Amikacin</b> . <b>Ethambutol</b> avoid co-administration with <i>Aluminum salts (ALOH)</i>

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# Candidiasis (Thrush) a fungal infection

<b>Symptoms of Active Infection</b>	<p><b>Mouth or esophagus:</b> white patches on gums, tongue or lining, pain and difficulty swallowing. Loss of appetite.</p> <p><b>Vagina:</b> itching, burning, vaginal discharge.</p>
<b>Diagnostic Procedures</b>	<p><b>Mouth and Vagina:</b> visual exam, smear and culture.</p> <p><b>Esophagus:</b> usually treated presumptively, confirmed by biopsy culture.</p>
<b>Treatments (Tx) for Active Infection</b>	<p><b>Fluconazole, Nystatin, Clotrimazole Troches or cream, Ketoconazole, Itraconazole. ABLC. Vaginal:</b> First try yogurt and/or vinegar douche, garlic, then topical creams, then oral systemic drugs.</p>
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	<p>Risk increases as CD4s fall &lt;75 or 5%. Px thought preferable to dealing with active infection by some but fluconazole resistance becoming an issue. Px: <b>Fluconazole 100 - 200 mg/day. Mx: Fluconazole 50 - 200 mg/day. Vaginal:</b> Any CD4 count, Px and Mx same as Treatment. Use topical or troches before systemic Px.</p>
<b>Possible Side Effects</b>	<p><b>Nystatin:</b> diarrhea, gastrointestinal upset with high doses.  <b>Fluconazole:</b> nausea &amp;/or headache, rare liver reactions, abdominal pain. <b>Itraconazole:</b> similar. <b>Ketoconazole:</b> can be toxic to liver (fatal), headache, drowsiness, dizziness.</p> <p><i>Monitor for resistance to these drugs.</i></p>
<b>Drug Interactions (and notes)</b>	<p><b>Fluconazole:</b> avoid Hismanal, Seldane, Warfarin, Rifampin, oral contraceptives, Cimetidine, Dilantin, Hydrochlorothiazide, and Sulfonylureas. Itra &amp; keto.: Seldane, Hismanal, Antacids &amp; ddI, take 2 hrs apart. Clotrimazole: raises liver function tests. Flu &amp; Itra may interact w/ clari &amp; rifabutin.</p>

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# Cryptococcosis (Cryptococcal Disease) a fungal infection

<b>Symptoms of Active Infection</b>	Meningitis most common: mild headache and intermittent fevers. Progressive malaise, nausea, fatigue, loss of appetite. Altered mental status, seizures (rare). May also cause a form of pneumonia (mimicking PCP, sometimes occurring at the same time as PCP). Disseminated infection of multiple organs, may cause skin lesions.
<b>Diagnostic Procedures</b>	Testing for cryptococcal antigen (CRAG) on serum, cerebral spinal fluid (CSF), India ink stain on CSF. Chest x-ray for pneumonia. With altered mental status, seizures or other neurological problems CT scan or MRI scan should be done to rule out other factors, followed by lumbar puncture (spinal tap).
<b>Treatments (Tx) for Active Infection</b>	<b>Fluconazole (oral or IV). Amphotericin-B with or w/o 5-flucytosine (5-FC) (ampho-B often used first, particularly in severe cases with 5-FC followed by Fluconazole). ABLC, ABCD, liposomal ampho B (CT). Itraconazole (CT). Dexamethasone + ampho-B for pts. w/ high cranial pressures.</b>
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	Risk increases as CD4s fall < 75 or 5% Cryptococcal antigen tests should be done regularly. If positive, follow with cultures. Px: <b>Fluconazole 100 - 200 mg/day. Mx important indefinitely: Fluconazole 200 - 400 mg/day. Amphotericin B appears inferior to fluconazole as Mx. Consider Itraconazole 200 mg/day but has poor penetration into CNS.</b>
<b>Possible Side Effects</b>	<b>Fluconazole: nausea &amp;/or headache, rare liver reactions, abdominal pain. Itraconazole: similar. Amphotericin B: damage to kidneys (fluid loading may reduce this; monitor BUN and creatinine levels), anemia, chills, fever, headache, vomiting, diarrhea, cramping, low blood pressure and abnormal heartbeat. ABLC, ABCD and liposomal ampho B reportedly less toxic. Flucytosine (5-FC): nausea, diarrhea, vomiting, severe bone marrow suppression, liver toxic.</b>
<b>Drug Interactions (and notes)</b>	<b>Fluconazole: avoid Hismanal, Seldane, Warfarin, Rifampin, oral contraceptives, Cimetidine, Dilantin, Hydrochlorothiazide, and Sulfonylureas. Amphotericin B: avoid steroids, some antineoplastics; may be synergistic with Flucytosine. Flucytosine, requires close monitoring of blood, kidney &amp; liver functions.</b>

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## Histoplasmosis a fungal infection

<b>Symptoms of Active Infection</b>	Fever, weight loss, skin lesions, difficulty breathing, anemia, lymphadenopathy (swollen lymph nodes). May cause pneumonia
<b>Diagnostic Procedures</b>	May be difficult to diagnose. Blood and sputum culture, bone marrow biopsy and culture, lymph node biopsy or skin lesion biopsy. Chest x-ray.
<b>Treatments (Tx) for Active Infection</b>	<b>Itraconazole, Amphotericin-B (IV), Fluconazole. ABLC, ABLC, liposomal ampho B.</b>
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	Risk increases as CD4s fall < 75 or 5%. No Px regimens being studied. Mx: <b>Itraconazole 200 mg twice a day better than Fluconazole 600 mg/day.</b>
<b>Possible Side Effects</b>	<b>Fluconazole: nausea &amp;/or headache, rare liver reactions, abdominal pain. Itraconazole: similar. Amphotericin B: damage to kidneys (fluid loading may reduce this; monitor BUN and creatinine levels), anemia, chills, fever, headache, vomiting, diarrhea, cramping, low blood pressure and abnormal heartbeat. ABLC, ABCD and liposomal ampho B reportedly less toxic.</b>
<b>Drug Interactions (and notes)</b>	<b>Fluconazole: avoid Hismanal, Seldane, Warfarin, Rifampin, oral contraceptives, Cimetidine, Dilantin, Hydrochlorothiazide, and Sulfonyleureas. Amphotericin B: avoid steroids, some antineoplastics; may be synergistic with Flucytosine which requires frequent monitoring of various blood levels; some side effects treatable. Histoplasmosis is most common in the river valleys of Midwest, especially Kansas.</b>

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## Cryptosporidiosis a protozoal infection

<b>Symptoms of Active Infection</b>	Diarrhea with frequent watery stools, abdominal cramping, nausea, vomiting, fatigue, flatulence (gas), weight loss, loss of appetite, constipation. Dehydration and electrolyte imbalances (sodium & potassium).
<b>Diagnostic Procedures</b>	Stool tests (often repeated tests are necessary), bowel biopsy, endoscopy. May be infected but asymptomatic.
<b>Treatments (Tx) for Active Infection</b>	No standard Tx. <b>Azithromycin oral or IV (CT,CU). Paromomycin (humatin), bovine colostrum (CT), Immuno-C (CT), NTZ (CT) (CU). Octreotide (and others for symptoms only). Nutritional therapies.</b>

<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	Risk increases as CD4s fall < 75 or 5%. However, as in Tx, there is no consensus on an effective Px regimen. Some physicians report possible Px success with <b>Paromomycin (humatin)</b> and <b>Azithromycin (ANH)</b> .
<b>Possible Side Effects</b>	<b>Paromomycin:</b> nausea, reversible kidney toxicity, and hearing loss. <b>Spiramycin:</b> vomiting, colitis. <b>Azithromycin:</b> see MAI. <b>Atovaquone:</b> nausea, rash and fever and increased liver function tests. <b>Octreotide:</b> nausea, diarrhea, malabsorption, headache.
<b>Drug Interactions (and notes)</b>	<b>Atovaquone:</b> Take with fatty foods for proper absorption.

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## **Pneumocystis carinii Pneumonia (PCP) a protozoal infection**

<b>Symptoms of Active Infection</b>	Fever, dry nonproductive cough, difficulty breathing, weight loss, night sweats, fatigue, elevated serum LDH (a liver enzyme).
<b>Diagnostic Procedures</b>	Chest x-ray, sputum induction*, gallium scan, bronchoscopy*. * Requires special stain to identify organisms.
<b>Treatments (Tx) for Active Infection</b>	Systemic Tx preferred. <b>TMP/SMX</b> {(IV or oral) same as <b>Bactrim, Septra, co-trimoxazole</b> }; <b>Pentamidine (IV)</b> ; <b>Dapsone</b> with or without <b>Trimethoprim (CT) (EA)</b> . <b>Atovaquone</b> for mild to moderate PCP, <b>Trimetrexate IV</b> ; <b>Primaquine (BC)</b> with <b>Clindamycin</b> . <b>Corticosteroids</b> might be added to any of the above in moderate to severe cases.
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	Px if symptomatic and CD4 <300, or if asymptomatic and CD4 <200 or 20%. Prefer oral drugs for Px or Mx, unless not tolerated (some success in desensitizing), then use <b>Aerosol Pentamidine (AP)</b> (300mg/monthly). Post-PCP, if CD4 < 50 and symptomatic, aggressive docs/patients combine oral with AP. Oral: <b>TMP/SMX:</b> one dbl strength tablet 3x/wk, or once daily. <b>Dapsone:</b> 100mg 3x/wk or once daily. <b>Primaquine</b> 15 mg 3x/wk. <b>Atovaquone (CT)</b> .

<b>Possible Side Effects</b>	<b>Pentam (IV):</b> Low blood pressure and high blood sugar, low blood counts, elevated kidney and liver function tests, nausea, and pancreatitis. <b>AP:</b> cough, shortness of breath, pancreatitis. <b>TMP/SMX:</b> High rates of mild to severe allergic side effects: rashes, itching, nausea, fever, leukopenia, vomiting. <b>Dapsone:</b> similar allergic reactions, severe anemia (with G6PD deficiency), sensitivity to sunlight, headache, neuropathy. <b>Atovaquone:</b> nausea, rash and fever and increased liver function tests.
<b>Drug Interactions (and notes)</b>	<b>TMP/SMX:</b> interacts with Warfarin, Sulfonylureas, Methotrexate, Phenytoin, thiazide diuretics, and Cyclosporine. Some physicians "desensitize" patients to TMP/SMX by starting with very low doses and gradually increasing. <b>Dapsone:</b> do not take within 2 hrs. of ddI as it will not be properly absorbed. <b>Atovaquone:</b> Take with fatty foods for proper absorption. <b>Pentam. with ddI:</b> monitor for pancreatitis. **

\*\* When taking broad spectrum antibiotics, monitor for fungal infections

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## Toxoplasmosis gondii (Toxo) a protozoal infection

<b>Symptoms of Active Infection</b>	Encephalitis most common: altered mental state (lethargy, confusion, delusional behavior), paralysis on one side of body, seizures, severe headaches that do not respond to pain killers, fever, coma. May also cause symptoms outside CNS, notably in lungs, heart and eyes.
<b>Diagnostic Procedures</b>	Should do baseline Toxo antibody titer (when first diagnosed with HIV) to verify past exposure. Usually treated presumptively if MRI scan shows brain lesions and antibody positive; also, brain biopsy to rule out lymphoma. Can do tissue culture and CSF. Requires special stain to identify. If Toxo-negative, avoid cat feces and undercooked meat and fish.
<b>Treatments (Tx) for Active Infection</b>	Always treat with combination therapy. <b>Pyrimethamine with any of the following:</b> <ul style="list-style-type: none"> <li>- Sulfadiazine.</li> <li>- Clindamycin.</li> <li>- Sulfadiazine &amp; Clindamycin (CT).</li> <li>- Azithromycin (CT) (EA).</li> <li>- Sulfadiazine &amp; rIFN Gamma (CTP).</li> </ul> <b>Atovaquone (CT).</b> Folinic acid supplement should be used.

<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	<p>At risk if positive Toxo antibodies and CD4 count &lt;250 or 20%.  <b>Tx/Mx: Pyrimethamine 25-50 mg/day with Sulfadiazine 2-4gm/day, and Leucovorin 10-50mg/day, if needed.</b>  <b>Dapsone:100 mg 2x/week. Atovaquone: promising, but not currently in trials for Toxo Px. In a recent CPCRA study, Pyrimethamine <u>was not</u> effective as Px but is still good for Tx and Mx. Best bet for Px is TMP/SMX, possibly Dapsone.</b></p>
<b>Possible Side Effects</b>	<p><b>Pyrimethamine: marrow suppression leading to anemia (monitor semiweekly). Use caution with convulsive disorders. Anemia risk in patients with G6PD deficiency. Sulfadiazine: skin rashes (sometimes severe) and itching, nausea, fever, leukopenia.</b>  <b>Clindamycin &amp; Azithromycin: Nausea, loose stools and hearing loss. Atovaquone: nausea, rash and fever and increased liver function tests. TMP/SMX: High rates of mild to severe allergic side effects: rashes, itching, nausea, fever, leukopenia, vomiting.</b>  <b>Dapsone: similar allergic reactions, severe anemia (with G6PD deficiency), sensitivity to sunlight, headache, neuropathy.</b></p>
<b>Drug Interactions (and notes)</b>	<p><b>Pyrimethamine: leucovorin (folinic acid) may be given to decrease bone marrow suppression, particularly at high doses. Pyrimethamine may not be well absorbed with ddI.</b>  <b>Clindamycin: avoid Erythromycin. Atovaquone: unknown at this time. **</b></p>

**\*\* When taking broad spectrum antibiotics, monitor for fungal infections**

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## **Cytomegalovirus (CMV) a viral infection**

<b>Symptoms of Active Infection</b>	<p><b>Retinitis: blurry vision leading to blindness.</b>  <b>Esophagitis: pain and difficulty swallowing, ulcerations.</b>  <b>Colitis: fever, diarrhea, abdominal pain, wasting.</b>  <b>Pneumonia (rare): usual pneumonia symptoms (see PCP).</b></p>
<b>Diagnostic Procedures</b>	<p>Should do baseline CMV antibody titer to verify past exposure. For retinitis, an "Amsler Grid" or Teich test can be self administered to check for early vision loss, followed by a professional retinal examination. For other types of CMV, biopsy and endoscopy.</p>

<b>Treatments (Tx) for Active Infection</b>	<b>Ganciclovir (DHPG) (IV), Foscarnet (IV), Ganciclovir Implants (intraocular), IV Cidofovir. Combo of Ganciclovir and Foscarnet, Intravitreal Cidofovir, MSL-109 (monoclonal antibody) (CT) for retinitis. ISIS 2922, GEM 132 (antisense) for retinitis (CT). GW1263 for retinitis (CT), proganciclovir (CT).</b>
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	<b>At risk if positive CMV antibodies and CD4 count &lt;75 or 5%. Long term Mx necessary with Retinitis: Ganciclovir 5-10mg/kg daily (MX), cidofovir (5 mg/kg every other week) (MX). Switch to foscarnet if resistance develops. Oral ganciclovir (3g/day) Px/Mx.</b>
<b>Possible Side Effects</b>	<b>Ganciclovir (DHPG): reversible neutropenia, thrombocytopenia, confusion, disorientation, anemia, fever, rash, abnormal liver function tests. Foscarnet: may be highly damaging to the kidneys, anemia, nausea, penile ulcerations in uncircumcised men. Serum creatinine and electrolyte level monitoring essential and can prevent irreversible damage.</b>
<b>Drug Interactions (and notes)</b>	<b>Ganciclovir: G-CSF and GM-CSF can be used to decrease neutropenia (low white blood cells). When combining with AZT or other neutropenic drugs blood monitoring is essential; dose reduction or discontinuation could be necessary. Concurrent administration of saline solution has been reported to help prevent Foscarnet's renal toxicities. Ganciclovir and ddI: monitor for pancreatitis.</b>

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## Herpes Simplex Shingles viral infections

<b>Symptoms of Active Infection</b>	<b>Painful blisters, ulcers, itching on the lips (HSV-1), anus and/or genitals (HSV-2). Shingles on body in Herpes Zoster (Varicella Zoster Virus or VSV). VZV is a reactivation of chicken pox and usually occurs on legs or torso.</b>
<b>Diagnostic Procedures</b>	<b>Visual exam, tissue biopsy and culture. (HSV Esophagitis may also occur, and appears similar to CMV or candida).</b>
<b>Treatments (Tx) for Active Infection</b>	<b>Acyclovir (oral or IV), Valacyclovir (oral), Famciclovir (oral). If acyclovir-resistant, Foscarnet (IV) or topical Trifluridine (TFT), topical Cidofovir (CT), cidofovir (CT) or topical Foscarnet (CT).</b>
<b>Prophylaxis (Px) and Maintenance (Mx) Options</b>	<b>Mx if recurrent HSV with Acyclovir 200 - 400 mg 2 to 4/day. Higher doses if resistant (very high with HZV); possible extreme cases: monthly Foscarnet induction. Famciclovir, Valacyclovir.</b>

<b>Possible Side Effects</b>	<b>Acyclovir: Nausea, Diarrhea, Headache, Skin rash. Foscarnet: may be highly damaging to the kidneys, anemia, nausea, penile ulcerations in uncircumcised men. Serum creatinine and electrolyte level monitoring essential and can prevent irreversible damage. Trifluridine (TFT): transient burning &amp; stinging.</b>
<b>Drug Interactions (and notes)</b>	Concurrent administration of saline solution has been reported to help prevent <b>Foscarnet's renal toxicities.</b>

**\*\* When taking broad spectrum antibiotics, monitor for fungal infections**

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**Legend:**

- ANH=Approved for non-HIV related conditions
- BC=Buyers Club
- BID=Twice a day
- CD4=T4 Helper Cell
- CT=Clinical Trial
- CTP=Clinical Trial Pending
- CU=Compassionate Use
- EA=Expanded Access
- IV=Intravenous
- Mx=Maintenance Therapy
- Px=Prophylaxis (prevention)
- Tx=Treatment
- TID=Three times a day

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## Patient Assistance and Compassionate Use Information

DRUG	INDICATION	ACCESS	CONTACT INFO.
ABCD (Amphotericin B Colloidal Dispersion)	Fungal Infections	CU	1-415-617-3026
ABLCL (Amphotericin-B Lipid Complex)	Life-threatening fungal infections	CU	1-800-422-5279
Acyclovir	Herpes Simplex, Zoster	Patient Assistance	1-800-722-9294
Albendazole	Microsporidiosis	CU (MD's only)	1-800-366-8900
Azithromycin	MAI, Toxo, Crypto.	EA Patient Assistance	1-800-742-3029 1-800-646-4455
Atovaquone(Mepron®)	Toxoplasmosis and PCP Tx	EA, Patient Assistance	1-800-722-9294
Cidofovir	CMV	Patient Assistance	1-800-445-3235
Ciprofloxacin	MAC, bacterial infect.	Patient Assistance	1-800-998-9180
Clarithromycin	MAI	Patient Assistance	1-800-688-9118
Clindamycin	PCP, toxo	Patient Assistance	1-800-242-7014
Clofazimine	MAC	Patient Assistance	1-800-257-3273
EPO (Procrit)	AZT and HIV induced anemia	Patient Assistance Reimbursement Info. (MD's) Cost Sharing	1-800-447-3437 1-800-553-3851 1-800-441-1366
Ethambutol	MAC, TB	Patient Assistance	1-800-568-9938

Fluconazole	Fungal Infections	Medical Information Financial Assistance	1-212-573-7588 1-800-869-9979
Foscarnet	CMV, acyclovir resistant herpes	Medical Information Financial Assistance	1-800-388-4148 1-800-488-3247
Ganciclovir	CMV	Information and EA	1-800-285-4484
Ganciclovir implants	CMV	Information and EA	1-800-393-4675
G-CSF & EPO (Epogen)		General Information Financial Assistance	1-800-282-6436 1-800-272-9376
GM-CSF	Neutropenia	CU Financial Assistance	1-800-446-8639 1-800-776-5463
Isoniazid	TB		1-212-546-5709
Itraconazole (Sporanox <sup>®</sup> )	Histoplasmosis	Patient Assistance	1-800-544-2987
Ketoconazole	Candidiasis	Patient Assistance	1-800-544-2987
Liposomal amphotericin B	Fungal Infections	CU	1-800-787-8268
Liposomal gentamicin (TLC G-65)	MAC	Case by case basis	1-609-951-4337
Nystatin	Oral Candida	Patient Assistance	1-800-272-4878
NTZ	Cryptosporidiosis TX	CU	1-708-541-2525
Paromomycin (Humatin)	Cryptosporidiosis Tx	Access Information	1-800-755-0120
Pentamidine (aerosol)	PCP prophylaxis	Patient Assistance	1-800-366-6323

Pyrimethamine	Toxoplasmosis	Patient Assistance Patient Assistance	1-800-722-9294 1-800-285-4484
Pyrazinamide	Toxoplasmosis	Patient Assistance	1-800-568-9938
Rifabutin (Mycobutin®)	MAI Prophylaxis	Patient Assistance	1-800-795-9759
Rifampin	TB, MAC	Patient Assistance	1-800-257-3273 1-800-362-7466
Sandostatin	Cryptosporidium & HIV-related diarrhea	Patient Assistance	1-800-447-6673
Sparfloxacin	MAI, TB	CT	1-800-521-3084 x7297
Streptomycin	TB	Patient Assistance>	1-800-254-4445
Sulfadiazine	Toxoplasmosis	CDC	1-404-488-4928
TMP/SMX (Bactrim, Septra)	PCP PX and TX	Patient Assistance	1-800-722-9294 1-800-443-6676
Trimetrexate	PCP	Patient Assistance	1-800-285-4484

[Legend](#)

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There is evidence that cardiovascular toxicity may occur between terfenadine (Seldane) and astemizole (Hismanal) with several other prescription drugs used by people with HIV disease. They are: ketoconazole (Nizoral), fluconazole (Diflucan) , itraconazole (Sporanox), clarithromycin (Biaxin) and erythromycin. Check with your doctor if you are taking any of these drugs. For more information on drug interactions, call the Project Inform Hotline.

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Hotline hours:	Monday—Friday, 9am—5pm and Saturday, 10am—4pm (Pacific Time)
Office Telephone:	415-558-8669
Fax:	415-558-0684
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