HIV Prophylaxis Medications

Prophylaxis against opportunistic infection is treatment given to HIV-infected individuals to prevent either a first episode of an infection (primary prophylaxis) or the recurrence of infection (secondary prophylaxis). Prophylaxis is recommended to prevent three important opportunistic infections: Pneumocystis jiroveci pneumonia (PCP), Mycobacterium avium complex (MAC), and toxoplasmosis.

PLAY PICMONIC

CD4+ 200

CD (4) Fork with Less Than (200) Tooth-fairy

HIV patients with a CD4+ count below 200 should be treated to prevent the development of *Pneumocystis jiroveci* pneumonia (PCP). The proper prophylaxis for this is TMP-SMX.

TMP-SMX

Tampon on SMX-snowmobile

TMP-SMX (trimethoprim-sulfamethoxazole) is a combination drug used to help with prophylactic coverage in HIV patients. It is used in patients with CD4+ counts below 200 to prevent *Pneumocystis jiroveci* pneumonia (PCP), and in patients with CD4+ counts below 100 to prevent toxoplasmosis.

Pneumocystis Pneumonia

Nude-Mona Sisters

Pneumocystis jiroveci pneumonia (PCP) is an opportunistic infection which affects HIV patients with CD4+ counts below 200.

CD4+ 100 Susceptible to Toxoplasma Gondii

CD (4) Fork with Less Than 100-dollar-bill at Tux-plasma Gandhi

At CD4+ counts below 100, patients are susceptible to opportunistic infection by Toxoplasma gondii. Thus, when a patient's CD4+ count drops below 100, they are prophylactically given TMP-SMX.

CD4+ 50

CD (4) Fork with Less Than 50 cent

Severely immunocompromised patients with a CD4+ level of below 50 are susceptible to infections with Mycobacterium avium complex (MAC). Routine prophylaxis against MAC is no longer recommended, however.

Mycobacterium Avium and Intracellulare

Mic-bacteria Avian-birds Inside-cell

Mycobacterium avium, or MAC, refers to a group of different Mycobacterium species which can all cause similar infections in AIDS patients. Two of the most common organisms are M. avium and M. intracellulare. Clinical manifestations include fever, weight loss, and night sweats in patients with CD4+ counts below 50. Routine prophylaxis is not recommended, but disseminated disease confirmed by blood culture positivity can be treated with azithromycin and ethambutol.

Azithromycin If Delayed Therapy

Zipper-mice and Delayed-sign

Routine prophylaxis against MAC is no longer recommended for patients with a CD4+ count below 50, as long as the patient recently began antiretroviral therapy for AIDS. This is because the risk of MAC infection is low in patients who are on therapy. However, if antiretroviral therapy is delayed for any reason, then prophylaxis with azithromycin is recommended until the patient begins therapy.