

FACTSHEET #5: TOP 6 OI'S

YOUR KEY MESSAGE:

“All opportunistic infections can be prevented, managed or cured. The good news is, even if your CD4 count is low or you have symptoms of an OI you can prevent, manage or cure these infections.”

OPPORTUNISTIC INFECTIONS (OIs)

Serious and life threatening OIs occur usually when the CD4 count is between 250 to 200 or lower. The top SIX OIs include:

TOP 6 OPPORTUNISTIC INFECTIONS

OI 1: TUBERCULOSIS (TB)

All people diagnosed with HIV should be tested for TB. Co-infection with HIV and TB is very serious. Worldwide TB is the leading cause of death among people with HIV.

TB is a ‘bacteria’ and is passed to others by coughing or sneezing or being in a confined, badly ventilated space with others.

TB diagnosis: blood test or a chest x-ray.

Active TB: determining whether TB is ‘active’ or ‘inactive’ may require a sputum smear (coughing mucus up from the airway).

Inactive TB: someone with ‘inactive’ TB cannot spread TB. Inactive means the person has fought off active TB. However, should their immune system weaken inactive TB may become active again.

Treatment for TB is *antibiotics* used in combination. *Isoniazid, Rifabutin, Myambutol ad Pyrazinamide*. Drug resistant TB is an emerging problem that makes treatment and cure of TB complicated for some people. Talk to your doctor about treatment options and side effects.

Studies show that people with HIV are at increased risk of TB. Those with lower CD4 results are at even higher risk.

OI 4: MYCOBACTERIUM AVIAM

OI 2: PNEUMOCYSTIS JEROVECI

Pneumocystis Jeroveci used to be called Pneumocystis Carinii Pneumonia or PCP. It is of pneumonia caused by a ‘fungus’. You are at increased risk of PCP when you’re CD4 is below 250. PCP can be life threatening.

HIV positive smokers are three times more likely to get PCP.

Symptoms include shortness of breath and/or fever. Dry cough, pain or tightness in the lungs. Weight loss and diarrhea.

PCP diagnosis: a chest xray, measuring the amount of oxygen in the blood and/or looking at a PCP sample for PCP organisms.

PCP treatment: antibiotic called *cotrimoxazole*, sometimes called *dapsone* and sometimes *septrin*.

OI 3: CYTOMEGALOVIRUS (CMV)

CMV is a virus from the herpes family. Like other herpes viruses it is sexually transmitted in semen, vaginal secretions, through blood and saliva and can be transmitted from mother-to-child through breast milk.

CMV retinitis is the most common symptom. CMV retinitis untreated can cause blindness.

CMV diagnosis: an ophthalmological examination of the eye or a biopsy.

Treatment for CMV: intravenous *ganciclovir* and *foscarnet* given in combination - intravenous for both CMV retinitis and gastrointestinal CMV. Injections directly in to the eye required to prevent blindness.

New complications and ART: ARVs prevent and treat CMV. But increased *uveitis* (inflammation of iris) and *vitritis* (inflammation of back of the eye) among those diagnosed with CMV and started ART have been reported.

COMPLEX (CMV)

MAC is a 'bacteria' found in soil, water and other places in the environment. It attacks lungs, the intestines or it may be 'disseminated' though the body.

Disseminated MAC can be life threatening.

MAC diagnosis: MAC can be diagnosed with a blood test but sometimes requires a bone marrow sample.

Symptoms of MAC include fever, night sweats, abdominal pain, fatigue and diarrhea.

MAC treatment and prevention uses *antibiotics* and the most common ones are *clarithromycin*, *azithromycin* and *ethambutol* in combination. Once CD4 count is above 100 your doctor may recommend that you stop taking MAC treatment. Pregnant women should not take *clarithromycin* as prevention or treatment for MAC.

OI 5: TOXOPLASMOSIS (Toxo)

Toxoplasmosis is a 'parasite' carried by cats, birds and other animals and found in soil, cat feces and in meat, particularly pork.

Toxoplasmosis diagnosis: can be detected using a blood test. Toxo encephalitis (Toxo in the brain) can be detected through a CT scan or an MRI.

Toxo symptoms include headaches, confusion, motor weakness, fever and seizures.

Toxo treatment and prevention is recommended for people with HIV with CD4s below 200. Preventative treatment is called *cotrimoxazole*, which is sometimes called *dapsone* or *septrin*. It is usually given in combination with a drug called *pyrimethamine*.

OI 6: CANDIDIASIS (THRUSH)

Candidiasis is a 'fungus' that is sometimes called *candida* or *thrush*. Candidiasis can live on the skin and in the mouth or elsewhere in your body.

About candidiasis: People who don't have HIV can get candidiasis if their immune function is compromised by stress, smoking, alcohol or diabetes. People may also be susceptible to candidiasis when they take antibiotics that kills harmless bacteria in the body and creates an imbalance that allows candida to take its place. Inhaled corticosteroids for asthma and other respiratory conditions can also lead to candidiasis.

Symptoms of Candidiasis: on gums, the tongue, inner cheek and throat candida grows in white clumps or causes red blotches called erythema. Vaginal candidiasis can cause a discharge that can either be thick and yellow-white or clear and watery. Men can get genital candida under the foreskin. Women are more susceptible when they are pregnant and can pass candida from mother-to-child during labor.

Diagnosis: symptomatic diagnosis is most common. Doctors may take a sample or a skin sample. Blood tests may be taken for conditions associated with candidiasis.

Treatment and prevention: Anti-fungal treatments are generally effective. These include *Intraconazole* and *fluconazole*. *Ketoconazole*, sometimes called *Nizoral* is no longer recommended because of potential liver toxicity.

Esophageal candidiasis (in the gullet) can be a more serious condition making it painful to eat. People with low CD4 results (below 100) are at increased risk when candida can grow in the lungs and also become systemic.