

FACT SHEET 4: OPPORTUNISTIC INFECTIONS AND STAGES OF HIV INFECTION

WHAT ARE OPPORTUNISTIC INFECTIONS?

In the human body there are many germs such as bacteria, protozoa, fungi and viruses. When the human immune system is working well, it is able to control these germs. However, when the immune system is weakened or compromised, these germs may get out of control and cause compromising health problems.

Opportunistic infections are mild to severe infections caused by microorganisms (pathogens), which can include bacteria (such as staph), viruses (such as HIV), and fungi (such as yeast). While these microorganisms usually do not cause serious disease in healthy individuals, those with compromised immune systems, such as persons with HIV, will be less likely to resist such opportunistic infections.

Once HIV infection has significantly weakened an individual's immune system and one or more opportunistic infections are present, a person is diagnosed as having AIDS.

Symptoms of opportunistic infections will vary according to the microorganism that caused the infection and by the individual infected. Treatment or medical management of opportunistic infections may be difficult because some of these microorganisms may be resistant to standard antibiotic therapy. For example, since antibiotics target bacterial structure and function, and since viruses and bacteria are structurally different, antibiotics have no effect on viruses.

WHAT ARE SOME OF THE MOST COMMON OPPORTUNISTIC INFECTIONS?

There are many different kinds of opportunistic infections. The following is a list of some common opportunistic infections associated with HIV infection.

Bacterial Infections:

- ▶ Bacterial Diarrhea
- ▶ Tuberculosis (TB)
- ▶ Syphilis & Neurosyphilis
- ▶ Bacterial Pneumonia

Malignancies:

- ▶ Anal Dysplasia/Cancer
- ▶ Cervical Dysplasia
- ▶ Kaposi's Sarcoma (KS)
- ▶ Lymphomas

Viral Infections:

- ▶ Hepatitis C
- ▶ Herpes Virus (Shingles)
- ▶ Herpes Simplex Virus (Oral and genital)
- ▶ Human Papilloma Virus (HPV, genital warts and anal and cervical cancer)

Fungal Infections:

- ▶ Aspergilosis
- ▶ Candidiasis (Thrush, yeast infection)
- ▶ Coccidioidomycosis
- ▶ Histoplasmosis

Protozoal Infections:

- ▶ Cryptosporidiosis
- ▶ Psoriasis
- ▶ Pneumocystis Pneumonia (PCP)
- ▶ Toxoplasmosis

Neurological Conditions:

- ▶ AIDS Dementia Complex (ADC)
- ▶ Peripheral Neuropathy

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WHAT ARE THE DIFFERENT STAGES OF HIV INFECTION?

HIV/AIDS unfolds along a continuum. The continuum starts at the point of HIV (Human Immunodeficiency Virus) infection and works its way to the AIDS (Acquired Immunodeficiency Syndrome) stage.

- ▶ **Point of infection:** This is the first stage and is marked by HIV entering the bloodstream and making a person HIV positive. People may be unaware of their point of infection but they are infectious and can transmit the virus to others.
- ▶ **Stage 1 – primary/acute infection:** During this stage, the HIV virus is establishing itself within the body. In this period, most people will experience flu like symptoms two to three weeks after point of infection. This stage can last anywhere between four weeks to three months.
- ▶ **Stage 2 – seroconversion or “window period”:** During this stage the body begins producing HIV antibodies which can be detected by a standard HIV test. In British Columbia, tests can detect antibodies within four weeks to three months following point of infection.
- ▶ **Stage 3 – asymptomatic period:** This stage of HIV infection can last up to ten years or more from point of infection. This stage varies for each individual and may be influenced by factors such as; health status, personal lifestyle and/or access to health care or treatment. During this period, people living with HIV may have no external signs or symptoms of illness. The body’s immune system is functioning while HIV continues to progress in the body.
- ▶ **Stage 4 – symptomatic period:** This period of infection signals that the immune system is becoming increasingly damaged. The HIV positive individual may begin to experience some mild symptoms and illnesses such as night sweats, fatigue, thrush, skin rashes and weight loss.
- ▶ **Stage 5 – AIDS:** This period begins when an HIV positive individual has one or more ‘opportunistic infections’ indicating that HIV is aggressively advancing and compromising the immune system. Although the opportunistic infection may be treated, having an AIDS diagnosis is permanent and often marks several experiences of illness and disease progression.

ONLINE RESOURCES

- ▶ **AEGIS (AIDS Education Global Information System):** www.aegis.com
- ▶ **AIDS Meds.com:** www.aidsmeds.com
- ▶ **The Body – Comprehensive HIV/AIDS Resource:** www.thebody.com