

Opportunistic infections

HIV weakens the immune system, making a person infected with HIV susceptible to many infections that the body is normally able to fight off. These infections are referred to as Opportunistic Infections. They can be caused by bacteria, viruses, fungi, all micro-organisms to which all people are frequently exposed. In people with a healthy immune system, the body fights many of them effectively but, with a weakened immunity, organisms can easier cause disease and eventually death. Some conditions may be severe, difficult to treat, and recurrent. But they are treatable.

Common opportunistic infections

- Swollen lymph nodes or glands felt as lumps in the neck, armpit, groin or elsewhere. Some people never develop this, in others they may disappear as HIV infection progresses
- Chronic severe tiredness and feeling unwell for weeks or months
- Herpes zoster (shingles)
- Itchy skin diseases, spreading warts and sores that do not heal well
- Recurrent fungal infection of skin, mouth and throat making it very painful and difficult to eat
- Recurrent and/or chronic diarrhoea lasting for over one month and is difficult to treat
- Recurrent upper respiratory tract infections and pneumonia
- Encephalitis (inflammation of the brain) from various causes leading to many different problems
- Tuberculosis is the leading cause of death in people with AIDS (see below)
- Sexually transmitted infections (STIs), particularly those that are hard to treat such as chancroid that may cause genital sores. HIV does not cause STIs but can make standard treatment less effective (see fact sheet 2)
- Kaposi Sarcoma (a form of skin cancer) which starts as a flat or raised pinkish or dark mark of the skin and may gradually spread to different organs and can cause extensive swelling

WHO has developed a four phase clinical staging system to describe HIV progression in adults:

1. Asymptomatic (latent period)
2. Symptomatic with infections such as herpes zoster, minor skin problems and slight weight loss, but no effect on normal activity
3. Symptomatic with Opportunistic Infections severe enough to keep the person in bed up to half the day during the previous month
4. AIDS with wasting, chronic diarrhoea and fever and opportunistic infections, keeping the person in bed more than half a day during the previous month

Points to take into account

- Many of the above symptoms and diseases can occur in the absence of HIV. In people with HIV, these infections are usually much harder to treat and recovery is slow.
- Healthy people carry many disease organisms in their bodies all the time, which are held in check by their immune system. In different places, people are exposed to different organisms so diseases suffered by people with HIV or AIDS may vary.
- People with AIDS should avoid contact with people with active infections such as colds, flu and active tuberculosis. Repeated infections break down the immune system faster and it is therefore necessary to treat them as early as possible.

Treatment of Opportunistic Infections

There are conventional medical approaches to prevent and treat Opportunistic Infections. The efficacy of the drugs is enhanced by fitness of the body and by a positive mental attitude. For many treatments to work effectively, people must be well nourished and have an acceptable standard of living and hygiene. Positive thinking, exercise, laughter and a general feeling of pleasure release beneficial hormones and other chemical within the body. Conversely,

stress and anxiety release hormones that damage immunity. Thus treatment requires a more holistic approach than the pure medical treatment that can be given by the health system.

Tuberculosis and HIV

What is Tuberculosis (TB) and how is it spread?

- TB is a bacterial disease caused by infection with a germ, called Mycobacterium Tuberculosis. It is transferred through the air by an infected person, when breathing, coughing or spitting. It usually attacks the lungs, causing a condition known as pulmonary TB.
- TB can also enter the blood stream and spread to other organs. It can attack any part of the body outside the lungs, such as the spine, hips and lymph nodes. Then it is called extra-pulmonary TB.
- People with TB of the lungs can spread the germs to others. TB spreads easily when many people are living closely together or where there is not enough fresh air, for instance in a closed place. Family members, co-workers and friends of someone who has TB are at greater risk of becoming infected.
- Most people who carry TB infection do not become sick and do not spread the TB bacteria. Only about 10% of infected people have an active infection and can spread it to others. But people with HIV or AIDS are more likely to develop active TB.

How do HIV and TB interact

- TB and HIV are two different diseases. Not all patients who have TB are HIV positive or are living with AIDS. Not all patients who are HIV positive or living with AIDS will be infected with TB.
- TB in HIV positive people weakens the immune system even more and can cause a previously healthy feeling person living with HIV to develop faster into the stage of AIDS.
- People living with HIV/AIDS are more vulnerable to TB than others. Once HIV has weakened the immune

system, new TB infection can quickly develop to an active TB disease.

- HIV positive people when sick with TB are likely to develop more complicated forms of TB disease than those TB patients who are HIV negative.
- TB patients may have similar clinical signs and symptoms, as those seen in people who are living with HIV/AIDS

How is TB treated

- TB is curable if detected at an early stage and treated properly, even in people who are HIV positive.
- The treatment is a combination of pills to be taken daily over a period of six months. After two months of taking the pills regularly, the sputum will be tested again. If the tests show no TB bacteria, there is progress and fewer pills will be given for the remaining four months of treatment
- In Pakistan, TB is treated by DOTS (Directly Observed Treatment Short course). TB patients are given treatment directly, while someone is observing that they are really taking their medicine, as it is prescribed. Essential in DOTS is adherence to treatment, and completing the course, even if a patient feels already healthy. Failure to do so will result in recurring TB and the development of resistant strains that are much more difficult to cure.