

Anti-HIV therapy

HIV (human immunodeficiency virus) is treated with a drug combination therapy. These drugs interfere with the way the virus tries to reproduce itself inside specific cells in the human immune system such as CD4 (T cells) or macrophages. Although anti-HIV drugs cannot kill the virus completely, they reduce the chance of infected cells producing new HIV particles which could go on to infect even more human cells.

The anti-HIV drugs that are currently available fall into four main categories:

Nucleoside analogue reverse transcriptase inhibitors (NRTI) and nucleotide reverse transcriptase inhibitors (NtRTI)

Retrovir (zidovudine, AZT); Efavirenz (efavirenz); Epivir (lamivudine, 3TC); Videx (didanosine, ddI); Viread (tenofovir disoproxil, TDF); Zerit (zalcitabine, d4T); Ziagen (abacavir); Emtriva (emtricitabine, FTC); Combivir (3TC + AZT); Kivexa (3TC + abacavir); Truvada (FTC + TDF); Trizivir (3TC + AZT + abacavir).

Non nucleoside reverse transcriptase inhibitors (NNRTI)

Sustiva (efavirenz); Viramune (nevirapine).

Protease Inhibitors (PI)

Crixivan (indinavir); Norvir (ritonavir); Viracept (nelfinavir); Invirase (saquinavir hard-gel capsules); Fortovase (saquinavir soft-gel capsules); Agenerase (amprenavir); Telzir (fosamprenavir); Aptivus (tipranavir); Kaletra (lopinavir / ritonavir); Reyataz (atazanavir).

Entrance Inhibitors (IE)

Fuzeon (enfuvirtide, T-20).

To know the stage of HIV replication at which each kind of drug acts, please read Infovihtal # 7: "The HIV life cycle."

Anti-HIV treatment is also known as combination therapy or HAART (Highly Active Antiretroviral Therapy) and consists of a combination of three or more drugs, usually of at least two different kinds. The most suitable therapy is one that adapts to each specific individual, is effective in reducing or keeping viral load levels undetectable, is well tolerated and does not have any side effects which would significantly reduce a person's quality of life or put their health at risk. Therefore, a therapy that appears to be appropriate for one person may not have the same effects on another. As the num-

ber of drugs available increases, treatments tend to be tailored to each individual.

People with HIV may not be in need for treatment for some time. Treatment is usually started to avoid damage in the immune system, which would trigger infections or other conditions that pose a risk to a person's life. In this case, the amount of damage of the immune system is measured by T cell or CD4 counts in blood. Treatment is advised for cell counts below 200 CD4. Treatment may be started for cell counts ranging from 350-200 if viral load is high and/or following the onset of an AIDS-related disease. Treatment is not usually started for cell counts above 350 CD4.

Side - effects

Like all medicines, anti-HIV drugs can cause side-effects. Make sure your HIV doctor or pharmacist explains what side-effects you may expect from any drugs you decide to take, including mild ones that may wear off, and serious ones that you should report to your doctor immediately.

Resistance

Resistance can develop whenever HIV continues to reproduce whilst anti-HIV drugs are being taken. HIV that is resistant to one anti-HIV drug is likely still to be susceptible to some of the other anti-HIV drugs. However, when resistance to a specific drug is developed, the same is likely to happen with other drugs of the same kind, and this may result in fewer treatment options in the future.

The risk of developing resistance may increase if you fail to take your anti-HIV drugs regularly at the recommended dose and times of day. This means that you should start anti-HIV therapy only when you are sure you can keep to the established times to take your drugs. Talk to your doctor if you think that the suggested treatment will be difficult for you to follow.