3TC (Epivir)

WHAT IS 3TC?

3TC (Epivir®) is a drug used for antiviral therapy. It is manufactured by GlaxoSmithKline. Generic versions made by Ranbaxy and Aurobindo Pharma were approved in 2005 for sale outside the US. 3TC is also known as lamivudine.

3TC is a nucleoside analog reverse transcriptase inhibitor, or nuke. These drugs block the reverse transcriptase enzyme. This enzyme changes HIV's genetic material (RNA) into the form of DNA. This has to occur before HIV's genetic code gets inserted into an infected cell's own genetic codes.

WHO SHOULD TAKE 3TC?

3TC was approved in 1995 as an antiviral drug for people with HIV infection. It has been studied in adults and children over 3 months old.

There are no absolute rules about when to start antiviral drugs. You and your doctor should consider your T-cell count, your viral load, any symptoms you are having, and your attitude about taking HIV medications. Fact Sheet 404 has more information about guidelines for the use of antiviral medications.

If you take 3TC with other antiviral drugs, you can reduce your viral load to extremely low levels, and increase your T-cell counts. This should mean staying healthier longer.

A different formulation of 3TC has been approved for people with hepatitis B. Some people with HIV had their hepatitis B get worse after they stopped taking 3TC. Get tested for hepatitis B before you start taking 3TC to treat HIV. If you have hepatitis B and stop taking 3TC, your doctor should carefully monitor your liver function for several months.

WHAT ABOUT DRUG RESISTANCE?

Many new copies of HIV are mutations. They are slightly different from the original virus. Some mutations can keep multiplying even when you are taking an antiviral drug. When this happens, the drug will stop working. This is called "developing resistance" to the drug. See Fact Sheet 126 for more information on resistance.
Sometimes, if your virus develops resistance to one drug, it will also have resistance to other antiviral drugs. This is called "cross-resistance".

Resistance can develop quickly. It is very important to take antiviral medications according to instructions, on schedule, and not to skip or reduce doses.

3TC seems to be able to reduce resistance to AZT. That is, after people develop resistance to AZT and then take 3TC, AZT seems to work better for them.

HOW IS 3TC TAKEN?

3TC is available in tablets of 150 and 300 milligrams (mg). It is also available in liquid form. The normal dose of 3TC is 300 mg daily: either one 300 mg tablet daily or one 150 mg tablet twice a day. The dosage should be reduced for people who weigh less than 50 kilograms (110 pounds).

3TC can be taken with food or between meals.

Be sure your doctor knows if you have had kidney problems: your dose of 3TC may need to be lowered.

3TC is also available in Combivir, Trizivir and Epzicom. Combivir contains AZT and 3TC. Trizivir contains AZT, 3TC, and abacavir. Epzicom includes abacavir and 3TC. For more information, see Fact Sheet 417 on Combivir, Fact Sheet 418 on Trizivir, or Fact Sheet 422 on Epzicom.

WHAT ARE THE SIDE EFFECTS?

When you start any antiviral treatment, you may have temporary side effects such as headaches, high blood pressure, or a general sense of feeling ill. These side effects usually get better or disappear over time.

The most common side effects of 3TC are nausea, vomiting, fatigue, and headaches. Some people have trouble sleeping. There have been rare cases of hair loss.

HOW DOES 3TC REACT WITH OTHER DRUGS?

3TC should not be combined with ddC (zalcitabine, Hivid®).

Blood levels of 3TC may be increased by bactrim or septra. See Fact Sheet 535 for more information on these drugs.

3TC + abacavir (Ziagen) + tenofovir (Viread) or 3TC + ddI (Videx) + tenofovir (Viread): These combinations are linked to a high rate of treatment failure and should not be used without other anti-HIV drugs.

3TC should not be taken with **emtricitabine (Emtriva)** because there is no additional benefit.

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