



# COMBIVIR (Zidovudine + Lamivudine)

## WHAT IS COMBIVIR?

Combivir is a pill that contains two drugs used as part of antiretroviral therapy (ART): zidovudine (Retrovir, AZT) and lamivudine (EpiVir, 3TC). Combivir is manufactured by GlaxoSmithKline. Generic versions have been tentatively approved under PEPFAR (see fact sheet 475.)

The drugs in Combivir are called nucleoside analog reverse transcriptase inhibitors, or nukes. 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 COMBIVIR?

Combivir was approved in 1997 as an antiretroviral drug (ARV) for people with HIV infection. Combivir should not be used by children younger than 12 years old because the individual doses of zidovudine and lamivudine cannot be adjusted.

Some people with HIV had their hepatitis B get worse after they stopped taking lamivudine, a part of Combivir. Get tested for hepatitis B before you start taking Combivir to treat HIV. If you have hepatitis B and stop taking Combivir, your health care provider should carefully monitor your liver function for several months.

There are no absolute rules about when to start ART. You and your health care provider should consider your CD4 cell count, your viral load, any symptoms you are having, and your attitude about taking ART. Fact Sheet 404 has more information about guidelines for the use of ART.

If you take Combivir with other ARVs, you can reduce your viral load to extremely low levels, and increase your CD4 cell counts. This should mean staying healthier longer.

Children under 12 years old and people with kidney problems should not take Combivir.

Combivir provides two drugs in one pill. It can be more convenient to use Combivir than some other combinations of drugs. This could mean fewer missed doses and better control of HIV.

## 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 ARV. 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 ARVs. This is called "cross-resistance."

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

## HOW IS COMBIVIR TAKEN?

Combivir is taken by mouth as a tablet. The normal adult dose is one tablet, two times a day. Each tablet includes 300 milligrams (mg) of zidovudine (Retrovir, AZT) and 150 mg of lamivudine (EpiVir, 3TC).

Combivir can be taken with food, or between meals.

The dosage of lamivudine should be reduced for people who weigh less than 50 kilograms (110 pounds). People who weigh less than 110 pounds should normally not take Combivir.

## WHAT ARE THE SIDE EFFECTS?

When you start any ART, 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 Combivir are the same as with zidovudine (Retrovir) and lamivudine (EpiVir). They include headache, upset stomach, and

fatigue. See Fact Sheet 551 for more information on fatigue.

The most serious side effects of zidovudine are anemia, granulocytopenia, and myopathy. Very few people have these side effects. If they occur, your health care provider will probably have you stop using Combivir. See Fact Sheet 411 on zidovudine for more information on these side effects.

**Anemia** is a shortage of red blood cells caused by damage to bone marrow. Fact Sheet 552 has more information on anemia.

**Granulocytopenia** is a shortage of white blood cells caused by damage to bone marrow.

**Myopathy** is muscle pain and weakness. There is no specific treatment for myopathy.

## HOW DOES COMBIVIR REACT WITH OTHER DRUGS?

Combivir can interact with other drugs or supplements you are taking. **These interactions can change the amount of each drug in your bloodstream and cause an under- or overdose. New interactions are constantly being identified. Make sure that your health care provider knows about ALL drugs and supplements you are taking.**

**Combivir should not be taken with stavudine (Zerit, d4T).** Also, lamivudine and **emtricitabine (FTC)** are very similar and should not be taken together.

**Blood levels of lamivudine may be increased by bactrim or septr.** See Fact Sheet 535 for more information on these drugs.

**Zidovudine's side effects may be worse** if you are taking several other drugs.

**Methadone** may increase blood levels of zidovudine. If you take Combivir and methadone, watch for zidovudine side effects.

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