

Lay Summary



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START stands for “Strategic Timing of Antiretroviral Treatment”. The main study was an international study held in over 35 countries between 2009 and 2015. START is still collecting long-term follow up data on participants in the study.

The START study affirmed the importance of early HIV treatment (ART). It proved that ART reduced the risk of serious illnesses even in people who had high CD4 counts (above 500). This changed treatment guidelines around the world. Before this, people had to wait until HIV damaged their immune system. START provided evidence for ART to be used by all HIV positive people.

However, the individual risks over two years were still quite small. Because of this, the researchers wanted to look at people who started the study with a low viral load.

Out of more than 4500 people in the study overall, 1134 began with a viral load less than 3000 cells/ml. This included 93 people whose viral load was undetectable (less than 50) without ART.

Current analysis is being carried out on the 1134 people

Everyone started the study with a CD4 count above 500. Half started ART straight away - on average, within a week. The other half waited until their CD4 count dropped to 350. On average this took about two years, over these two years the CD4 counts stayed higher in people who started ART early. On average, this was 125 cells/mm³ higher after one year and 235 cells/mm³ higher after two years.

Over two years, both groups had a similar number of serious clinical events. There were 64 events in the immediate group compared to 61 in the group that waited for ART. However, results from blood tests showed that earlier ART might have other benefits, for example, in reducing inflammation and preventing HIV transmission.

There were no differences in CD4 count or inflammation for the 93 people whose viral load was undetectable at the start.

This analysis also showed that earlier ART did not lead to more problems from serious side effects. It showed that early ART was safe. This is important because ART also stops HIV transmission; sexual partners are protected from early treatment too, without this causing harm to people using ART.

The researchers concluded that their results still support guidelines that recommend early treatment. This is also valid for people with high CD4 counts and low but detectable viral load.