



Long-Term Benefits of Early HIV Treatment

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Delaying antiretroviral treatment leads to an excess risk for AIDS and other serious health problems that can persist for years, according to long-term follow-up results from the START trial.

Earlier in the HIV epidemic, the best time to start treatment was controversial. After the advent of effective combination antiretroviral therapy in the mid-1990s, treatment guidelines raised and lowered the CD4 count threshold for starting treatment in an effort to limit drug side effects while preserving immune function.

In 2015, the START trial provided definitive evidence that initiating treatment early, before immune function declines, leads to better outcomes. The trial enrolled more than 4,600 previously untreated people who entered the trial with a CD4 count above 500. They were randomly assigned to either start treatment immediately or delay therapy until their CD4 count fell below 350 or they developed symptoms of AIDS. The study showed that immediate treatment was associated with a 57% lower risk for serious AIDS-related events, serious non-AIDS events or death.

A follow-up analysis, presented at IDWeek 2022, showed that these benefits are long-lasting. Even after the delayed treatment group started therapy, their average CD4 count remained below that of the immediate treatment group. After a median 9.3 years of follow-up, people in the delayed group were still about 20% more likely to experience these adverse outcomes, with the excess risk driven by people ages 35 or younger.

These findings confirm that starting treatment as soon as possible significantly improves the long-term health of people living with HIV. “Overall, these data reinforce the need for early diagnosis and prompt initiation of antiretroviral therapy,” says Abdel Babiker, PhD, of University College London.