HIV Treatment and Lifestyle Factors Influence Death Rates

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Many deaths in people with HIV are now preventable—if people are able to not only control HIV, but also make lifestyle changes—according to a study published online May 6 in the journal *AIDS*.

A number of studies during the past couple of years have focused on how HIV raises a person's risk for diseases not traditionally associated with HIV, and thus how it continues to increase illness and death. While this research has been critical, it should not be taken to mean that worse health outcomes are guaranteed in people living with the virus. HIV, particularly untreated infection, is associated with poorer health, but data also suggest that lifestyle factors also play a role in morbidity and mortality risk.

To determine the actual causes of death in people with HIV, researchers with the Data Collection on Adverse Events of Anti-HIV Drug (D:A:D) study group conducted an analysis on 33,308 people with HIV enrolled in the D:A:D study. Data were collected on people from 1999 through early 2008. Over the course of the study period, there were 2,482 deaths, of which 29 percent were AIDS-related, 14 percent were related to liver disease, 12 percent to cardiovascular disease (CV) and 11 percent to non-AIDS-related cancers.

The study group found that death rates continued to dramatically decline throughout the modern antiretroviral (ARV) era—they dropped by nearly 50 percent between 1999 and 2008.

"It is particularly encouraging that there was no evidence that rates of death from any specific cause were increasing over the study period, and no emerging trends in unexpected causes of deaths were identified," the authors said.

A number of factors were associated with higher death rates, including low CD4s and high viral loads. Likewise, smoking was related to higher deaths from all causes, as were diabetes and hypertension—all correctable risk factors. People who were excessively thin or overweight were also at an increased risk of death. Not surprisingly, hepatitis C virus (HCV) and hepatitis B virus infection increased the likelihood of dying from liver disease.

Conversely, the percentage of deaths overall was extremely low in people with CD4 counts over 350, indicating that the preservation or return of higher CD4 counts has a protective effect against a number of causes of death. Death rates in people with low viral loads were also reduced.

In closing, the authors point to modern ARV therapy’s substantial influence on reducing deaths. They also point out the potential benefit of addressing non-HIV specific factors, concluding: “Further reductions in mortality in HIV-infected populations may only be possible if these modifiable factors are appropriately addressed.”
