Should ARV Treatment Be Started When CD4s Fall Below 500?

October 27, 2008 By Tim Horn

New research from a team of U.S. and Canadian researchers suggests that HIV-positive people have less risk of dying if they start antiretroviral (ARV) therapy sooner than is currently recommended, according to a presentation on Sunday, October 26, at the 2008 joint meeting of the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) and the Infectious Disease Society of America (IDSA).

HIV treatment guidelines maintained by the U.S. Department of Health and Human Services (DHHS) recommend that people living with HIV begin ARV therapy once their CD4 cell count falls below 350. But according to Mari Kitahata, MD, of the University of Washington in Seattle, who presented the new data at ICAAC/IDSA, the best time to begin treatment has been unclear because of the lack of clinical trial data.

In an effort to answer the lingering when-to-start question, Dr. Kitahata and her colleagues turned to the International Epidemiological Databases to Evaluate AIDS (IeDEA), comprised of a global network of clinics that serve people living with HIV and collect data important to key HIV/AIDS research questions.

Kitahata's group examined the records of patients enrolled in participating Canadian and U.S. cohorts (NA-ACCORD) from 1996 to 2006, all of whom entered the study with a CD4 count between 351 and 500 cells. Reviewing the patients' data, the researchers asked whether initiating ARV treatment during this early stage of HIV disease progression was associated with better survival than deferring therapy until a lower CD4 count—below 350 cells, in accordance with current guidelines—is reached.

About 8,300 patients were included in the analysis. Thirty percent of the study participants began taking ARV therapy immediately, while the remaining 70 percent of the participants waited to start treatment until their CD4s fell below 350.

The researchers reported a 71 percent higher risk of death for patients who deferred treatment rather than starting ARV therapy immediately, which led Kitahata to conclude that HIV treatment should begin earlier than is currently recommended.

The study has not yet, however, looked at important health issues beyond survival, such as the

risk of side effects, adherence and drug resistance, among those starting earlier compared with those starting later.

A unique aspect of this study, Kitahata explained, is that it represents the diverse characteristics of HIV-positive people receiving care in North America, unlike more selected populations that may be enrolled in a clinical trial. She also remarked that this study is one of the largest examining the question of when to begin treatment, comparing patients head-to-head from the time they start treatment until death.

Kitahata also said that a randomized clinical trial is necessary to confirm these findings—and those of two smaller cohort studies, conducted in Europe and North America, that suggest starting therapy when the CD4 cell count falls below 500—and to support changes to established treatment guidelines. She also noted that additional analyses from the study, including the question of an even greater survival advantage among those starting therapy with CD4s higher than 500, are being conducted.
