

Cancer burden may be changing for people living with HIV

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The total number of cancer cases diagnosed among people living with the human immunodeficiency virus (HIV) is projected to decline in coming years, due mostly to declines in non-Hodgkin lymphoma and Kaposi sarcoma.

Certain other cancers, such as prostate and lung, are expected to rise, according to data presented here at the AACR Annual Meeting 2017, April 1-5.

"The widespread use of modern antiretroviral therapies to treat HIV has decreased the risk of some cancers while at the same time dramatically increasing life expectancy," said the study's lead author, Jessica Yasmine Islam, MPH, a doctoral student at the Gillings School of Global Public Health at the University of North Carolina, Chapel Hill. "We estimated future [cancer](#) risk and burden for the U.S. population living with HIV in order to anticipate their need for cancer prevention, early detection, and treatment," she explained.

HIV is a virus that attacks the immune system and, if left unchecked, can lead to AIDS. The use of antiretroviral drugs, which were developed in the 1990s, stalls the progression of HIV, dramatically extending the lives of many infected people.

In 2006, only about 4 percent of the total U.S. HIV population was age 65 or older. By 2030, more than 20 percent of the total U.S. HIV population is expected to be 65 or older, according to estimates from the Centers for Disease Control and Prevention (CDC). Effective HIV treatment has also decreased the risk of AIDS-defining malignancies: Kaposi sarcoma, non-Hodgkin lymphoma, and cervical cancer.

Islam and colleagues from the National Cancer Institute and the CDC used cancer incidence data collected from the HIV/AIDS Cancer Match Study. They estimated cancer incidence rates in people living with HIV through 2030, assuming observed trends in incidence continue. To estimate the number of cancers projected to occur in this

population in the future, the investigators multiplied the number of people expected to be living with HIV in the U.S. each year through 2030 by cancer incidence rates.

In 2010, an estimated 7,909 cases of cancer were diagnosed among people living with HIV. Of these, 2,719 were AIDS-defining cancers and 5,190 were non-AIDS-defining cancers. The overall number of cancers is projected to drop to 6,495 in 2030, with AIDS-defining cancers declining dramatically to 710 and non-AIDS-defining cancers increasing somewhat to 5,794. While Kaposi sarcoma and non-Hodgkin lymphoma were estimated to be the most common cancers in this population in 2010, by 2030, the most common cancers in this population are expected to be prostate, lung, liver, and anal cancer, the study showed.

Islam explained that several factors are expected to contribute to the shift in cancer burden. First, the [antiretroviral drugs](#) that many are prescribed reduce immune suppression, thereby decreasing the risk of some cancers associated with viral infections and immune disruption, most notably Kaposi sarcoma and non-Hodgkin lymphoma. Also, the aging of the HIV-positive population will result in certain cancers occurring more frequently. For example, as more HIV-positive men reach an age where prostate cancer becomes more common, the number of cases diagnosed will rise in that population, she said.

"It is critical that we continue to monitor cancer risk in the HIV-infected [population](#)," Islam said.

"Targeted cancer prevention, early detection, and control efforts are needed, including smoking cessation, treatment of hepatitis C and B viruses, age-appropriate cancer screening, and continued widespread treatment with antiretroviral therapy."

Islam said one limitation of the study is that it includes only people who have been diagnosed with HIV; it does not include those who are infected

but have not been diagnosed. Therefore, she said, the true cancer burden is likely higher than the study results indicated.

Provided by American Association for Cancer Research

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