

## CDC: More Deaths From HCV Infection Than HIV

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November 14, 2011 (San Francisco, California) — Beginning in 2006, the number of deaths related to chronic hepatitis C virus (HCV) infection exceeded the number related to HIV, according to an analysis of mortality trends performed at the Centers for Disease Control and Prevention (CDC). Results of that analysis were reported here at The Liver Meeting 2011: American Association for the Study of Liver Diseases 62nd Annual Meeting.

Scott Holmberg, MD, MPH, chief of the epidemiology and surveillance branch, division of viral hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, at the CDC in Atlanta, Georgia, observed that "the relatively young age of most HCV-infected persons who are now dying portends a large and increasing healthcare burden."

As Dr. Holmberg pointed out, 3.2 million people in the United States are living with chronic HCV, and roughly a million more are infected with hepatitis B virus (HBV). Of the total, two thirds were born between 1945 and 1964. Because of the generally slow progression of chronic hepatitis infection, "these people are just now entering the period of risk for developing HCV- and HBV-related comorbidity and mortality."

Chronic liver disease and cirrhosis were among the 15 leading causes of death in the United States in 2007, when there were 19,000 deaths from hepatocellular carcinoma — half of which were directly attributable to HCV infection.

Dr. Holmberg's team reviewed death certificates abstracted by the National Center for Health Statistics from 1999 to 2007. A death related to HBV, HCV, and/or HIV (assessed to compare mortality trends) was defined as any death with a report of the standard International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) codes: B16.0, B17.0, B18.0, and B18.1 for HBV; B17.1 and B18.2 for HCV; and B20 to B24 for HIV. Reflected in the codes are underlying and contributing causes of death.

"Our aim was to compare trends in deaths associated with HCV, HBV, and HIV infection, and to describe associations between select sociodemographic characteristics and comorbid conditions associated with hepatitis-related mortality, with particular focus on potentially preventable conditions," said Dr. Holmberg.

Demographic variables included patient age, sex, race, ethnicity, level of education, and marital status; comorbid conditions included HIV infection, alcohol-related conditions, and any antecedent liver disease.

The results of the analysis were striking. "Just counting the 21.8 million death certificates clearly shows the increasing

incidence of HCV-related deaths — a significant rise at that," said Dr. Holmberg.

In contrast, data clearly show a stable rate for HBV-related deaths and a declining incidence of HIV-related deaths, which dropped below the death rate observed for HCV in 2006. Of note, the majority of HBV- and HCV-related deaths occurred in patients who were 45 to 64 years of age. "This epidemic is hitting middle-aged adults especially hard."

In 2007 — the last year of the analysis — there were 1815 HBV-related deaths recorded, with 59% occurring in middle-aged individuals. For HCV, of the 15,106 recorded deaths, 73% were in people 54 to 64 years of age.

"For both HCV and HBV, there was heavy representation in persons from racial and ethnic minorities," Dr. Holmberg reported.

Dr. Holmberg found that comorbidities associated with increased odds of HCV- and HBV-related mortality included chronic liver disease, coinfection with the other hepatitis virus, alcohol-related conditions, and HIV coinfection.

Dr. Holmberg acknowledged that death certificates are imperfect sources of information. "These things are often filled in by someone who is not the primary physician," he said. "However, looking at millions of deaths, the trends are clear. In fact, I would argue that this analysis greatly underestimates the relative impact of viral hepatitis."

Previous studies have shown that only 40% to 50% of HCV-infected individuals are identified as such prior to death, whereas 80% to 85% of patients infected with HIV have been diagnosed before succumbing to their illness, he pointed out.

## **Targeting the Boom**

"If you consider the stability of the rates for hepatitis B and the declining death rates seen with HIV — those are most likely caused by improved awareness and advances in treatment of HIV," said AASLD president, T. Jake Liang, MD, tenured senior investigator and chief of the liver diseases branch at the National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, in Bethesda, Maryland. For HCV, "mortality has actually increased, and has surpassed HIV."

Dr. Liang noted that the increase is striking particularly hard at baby boomers. "This is a population that we are very concerned about. We really need to be more aggressive in terms of trying to identify who they are and getting them into treatment."

*Dr. Holmberg and Dr. Liang have disclosed no relevant financial relationships.*

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