Hep B Prevalence in U.S. Is Double the CDC’s Estimate

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The prevalence of chronic hepatitis B virus (HBV) infection in the United States may be as high as 2.2 million cases according to a new study published in Hepatology.

Findings from the study, authored by Kris Kowdley, MD, of Virginia Mason Medical Center in Seattle and his colleagues, suggest the higher prevalence of chronic HBV can be attributed to foreign-born people who were infected in their country of origin before arriving in the states.

Emigrants from Asia and Africa, where infection with hepatitis B is highly endemic, represented close to 70 percent of the 1.32 million foreign-born residents living with chronic HBV in the United States in 2009, the authors note.

Chronic HBV is a major health burden that experts say affects up to 400 million individuals worldwide, with up to 25 percent—including many people coinfected with HIV—at risk for premature mortality due to primary liver cancer and end-stage liver disease if the infection is left untreated.

The U.S. Centers for Disease Control and Prevention has estimated that, based on 2006 data, there are between 800,000 and 1.4 million people living with chronic HBV in the country. Kowdley and his colleagues speculated that the true prevalence of chronic HBV is much higher, considering that many people who are at risk for the disease—notably those who are institutionalized, homeless and foreign-born—are typically underrepresented in the national health surveys the CDC uses.

“There is a wide discrepancy in the current estimates of the chronic HBV burden in the U.S.,” Kowdley said in an accompanying news announcement. “Understanding the ethnic and cultural populations affected by chronic hepatitis B will provide more accurate estimates and help to develop programs for prevention, earlier diagnosis and access to care for those at greatest risk.”

To come up with a more accurate U.S. prevalence estimate, the researchers reviewed the world’s medical literature for HBV rates from 1980 to 2010. For the meta-analysis, the team used 256 disease prevalence surveys for emigrants from 52 countries and 1,797 surveys for the general populations of 98 countries. Individuals with lower or higher risk of chronic HBV than the general population and groups not likely to emigrate were excluded. These surveys provided data for
populations from the 102 countries of origin for migrants to the United States as determined in the U.S. Census 2009 American Community Survey.

Analysis determined between 1.04 million and 1.61 million (1.32 million estimate) foreign-born residents were living with chronic hepatitis B in the United States in 2009. Chronically infected emigrants were mainly from Asia, Africa and Central America, accounting for 58, 11 and 7 percent of the foreign burden of disease in the United States, respectively.

“Our analysis suggests the total prevalence of chronic HBV is significantly higher, exceeding 2 million cases or twice the number previously reported,” Kowdley said.

In a related editorial also published in Hepatology, John Ward, MD, and Kathy Byrd, PhD, of the CDC’s Division of Hepatitis comment, “The study by Kowdley and colleagues provides evidence that numerous and diverse foreign-born populations in the U.S. are at risk for chronic hepatitis B. Nearly 3.5 percent of all foreign-born persons in the U.S. are living with this disease—a rate more than 10-fold higher than the prevalence of the general U.S. population.”

The editorial’s authors further emphasize the need for culturally specific services along with expanded HBV testing and linkage to care and treatment to prevent new infections, liver disease and cancer.

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