

Increased Risk of Acute Hepatitis B among Adults with Diagnosed Diabetes Mellitus

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Abstract

Introduction:

The risk of acute hepatitis B among adults with diabetes mellitus is unknown. We investigated the association between diagnosed diabetes and acute hepatitis B.

Methods:

Confirmed acute hepatitis B cases were reported in 2009–2010 to eight Emerging Infections Program (EIP) sites; diagnosed diabetes status was determined. Behavioral Risk Factor Surveillance System respondents residing in EIP sites comprised the comparison group. Odds ratios (ORs) comparing acute hepatitis B among adults with diagnosed diabetes versus without diagnosed diabetes were determined by multivariate logistic regression, adjusting for age, sex, and race/ethnicity, and stratified by the presence or absence of risk behaviors for hepatitis B virus (HBV) infection.

Results:

During 2009–2010, EIP sites reported 865 eligible acute hepatitis B cases among persons aged ≥ 23 years; 95 (11.0%) had diagnosed diabetes. Comparison group diabetes prevalence was 9.1%. Among adults without hepatitis B risk behaviors and with reported diabetes status, the OR for acute hepatitis B comparing adults with and without diabetes was 1.9 (95% confidence interval [CI] = 1.4, 2.6); ORs for adults ages 23–59 and ≥ 60 years were 2.1 (95% CI = 1.6, 2.8) and 1.5 (95% CI = 0.9, 2.5), respectively.

Conclusions:

Diabetes was independently associated with an increased risk for acute hepatitis B among adults without HBV risk behaviors.

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Abbreviations: (ACIP) Advisory Committee on Immunization Practices, (anti-HBc) total antibody to hepatitis B core antigen, (BRFSS) Behavioral Risk Factor Surveillance System, (CDC) Centers for Disease Control and Prevention, (CI) confidence interval, (EIP) Emerging Infections Program, (HBsAg) hepatitis B surface antigen, (HBV) hepatitis B virus, (HepB) hepatitis b vaccine, (HIV) human immunodeficiency virus, (HIVRISK) human immunodeficiency virus infection risk, (IDU) injection drug use, (LTC) long-term care, (MSM) male sex with another male, (NHANES) National Health and Nutritional Examination Survey, (OR) odds ratio

Keywords: blood glucose monitoring, diabetes mellitus, hepatitis B, prevention

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