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Difference in Antibody Response Rate Between Engerix-B and Recombivax-HB Has No Public Health Significance

by **Gina Pugliese, RN, MS**
Medical News Editor

Recent studies have suggested that there are differences in response rates between two recombinant hepatitis B vaccines licensed in the United States. Researchers from the Centers for Disease Control and Prevention recently conducted a study to evaluate possible differences between the two vaccines. A total of 1,766 persons completed the primary vaccination series and had post-vaccination serologic testing; 89% of Engerix-B recipients (778/875) compared with 86% of Recombivax-HB recipients (766/891) developed seroprotection (anti-HBs

≥ 10 mIU). For persons less than 40 years of age, 92% of recipients of each vaccine developed seroprotection. Among persons over 40 years of age, 86% of Engerix-B recipients (398/462) compared with 80% of Recombivax-HB recipients (373/465) developed seroprotection ($P = 0.02$). This difference in immunogenicity persisted after controlling for other risk factors for non-response.

A decision analysis comparing current usage patterns of hepatitis B vaccine to exclusive use of Engerix-B among older individuals resulted in no differences in the number of expected acute and chronic HBV infections among non-responders.

The researchers concluded that for persons under age 40 there are no differences in the response rate between the two vaccines. Based on the decision analysis, the higher response rate associated with the use of Engerix-B among older persons affords no greater protection against HBV and has no public health significance.

FROM: Averhoff F, Mahoney F, Coleman P., et al. Response to hepatitis B vaccination: a randomized trial comparing the immunogenicity of Engerix-B and Recombivax-HB. Presented at the 33rd Interscience Conference on Antimicrobial and Chemotherapeutics, Orlando FL (1994). Abstract # H18.