

# *Hepatitis E Virus Antibody Prevalence Among Selected Populations in Iowa*

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Hepatitis E Virus (HEV) causes an enteric infectious disease endemic in developing areas with hot climate. A case of endogenous HEV infection has been reported in the United States. Recently, HEV-like virus was isolated from swine in Iowa. Swine production is a major industry in Iowa with the potential for human exposure to swine in and around industrial and family farm operations. In order to determine whether individuals in Iowa are exposed to HEV, anti-HEV antibody prevalence in four selected Iowa populations was determined. Sera were collected from 204 patients with non-A, non-B, non-C hepatitis (non-A-C); 87 staff members of the Department of Natural Resources (DNR); 332 volunteer blood donors in 1989; and 111 volunteer blood donors in 1998. All sera were tested for anti-human HEV IgM and IgG by ELISA with confirmation of positivity by a peptide neutralization test. Both patients with non-A-C hepatitis (4.9%) and the healthy field workers from the Iowa DNR (5.7%) showed significantly higher prevalence of anti-HEV IgG antibodies compared to normal blood donor sera collected in 1998 ( $p < 0.05$ ). None of the sera had circulating HEV detectable by reverse transcription polymerase chain reaction amplification. In conclusion, human HEV, or a HEV-like agent, is present in the Iowa geographical area. At-risk human populations with occupational exposure to wild animals and environmental sources of domestic animal wastes or with unexplained hepatitis have increased seroprevalence of HEV antibodies.

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