



INCIDENCE AND PREVALENCE OF HEPATITIS D VIRUS IN THE STATE OF UTAH

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Hepatitis D (HDV) is a defective viral pathogen that requires the presence of hepatitis B (HBV) for packaging and transmission to complete its life cycle. HDV infection can be accomplished through either HBV co-infection or superinfection of a chronic HBV carrier. Complications associated with HDV infection include impaired liver function, hepatic decompensation and an increased risk of death (Negro, 2014).

An epidemiological study was designed to identify the incidence and prevalence of HDV within the Utahn population over a 20-year time frame (1999-2019). Diagnostic codes (ICD9, ICD10) for HBV and HDV, CPT test codes, and laboratory results for liver enzymes were used in the analysis of deidentified patient health records from the Utah Population Database (UPDB). Univariate and multivariate analyses were conducted to determine relationships that might exist between HDV infection and patient demographics.

No statistically significant differences were observed for liver enzyme levels between HBV mono-infected individuals and HBV+HDV co-infected individuals. Statistical analysis of race/ethnicity showed a significant difference in incidence rates among Asian population when compared against non-Asian populations. An upward trend in incidence and prevalence was observed over the 20-year time frame. Further analysis will be conducted to test for the presence of structural breaks in the data as has been reported in the recent international incidence of HDV (Weller, 2018).

References:

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- Weller, M., Cooke, E., GhaziTabatabaei, A., Yeh, C. C., & Zhang, Y. (2018). 2198. Increased Global Incidence and Altered Demographic Profile of Hepatitis Delta Virus (HDV). *Open Forum Infectious Diseases*, 5(Suppl 1), S649. <https://doi.org/10.1093/ofid/ofy210.1852>