

Hepatitis Delta in the United States

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Epidemiology

- 5-7% of HBV+
- More common in HC
- Most common g
- HBV increasingly

Clinical Infectious Diseases

BRIEF REPORT

Prevalence of Hepatitis B and Hepatitis D Virus Infections in the United States, 2011–2016

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Among adults in the 2011-2016 National Health and Nutrition Examination Survey (NHANES), the estimated prevalence of hepatitis B surface antigen (HBsAg) was 0.36% overall and 3.4% in non-Hispanic Asians. Among adult HBsAg carriers, 42% had antibodies to hepatitis delta virus (anti-HDV). Routine anti-HDV testing should be considered for HBsAg carriers.

Keywords. HBV; HDV; National Health and Nutrition Examination Survey; NHANES.



infection. Ideally, HDV RNA is measured in anti-HDV–positive individuals to confirm the presence of ongoing HDV infection; however, commercial HDV RNA assays are not widely available.

In the United States, HDV infection is believed to be rare, but surveillance data are limited. Unlike HBV infection, HDV infection is not nationally notifiable. Anti-HDV testing is rarely conducted in the United States [7, 8], thereby limiting the validity of prevalence estimates calculated using electronic medical records. Even systematic anti-HDV testing of HBsAg carriers in clinical cohorts can yield biased estimates [9], as these studies may exclude high-risk HBsAg carriers who are unaware of their HBV infection and/or not engaged in care. HDV serosurveys have been conducted in community-recruited samples, but these studies have predominantly been limited to persons who inject drugs [10].

In this study, population-based data from the National Health and Nutrition Examination Survey (NHANES) were used to es-

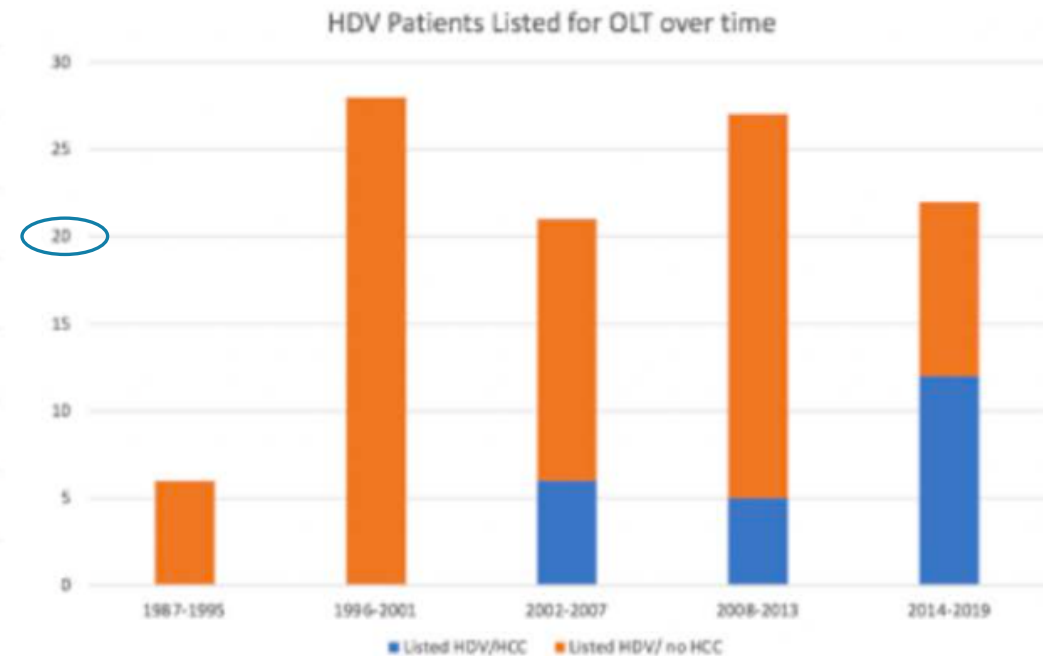
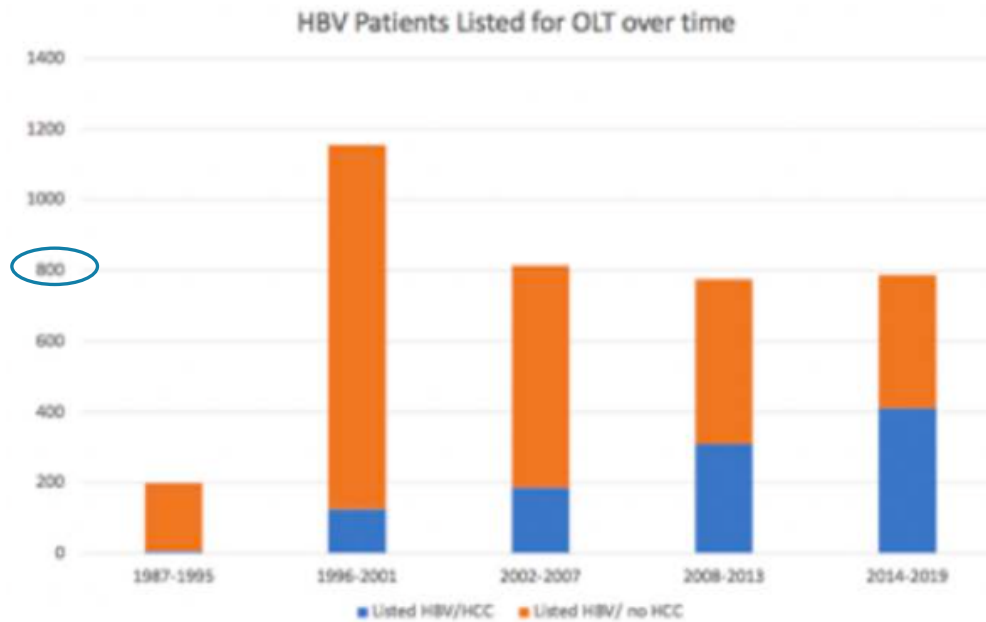
Epidemiology

Table 1. Prevalence of Ongoing Hepatitis B Virus Infection and Seroprevalence of Hepatitis D Virus Infection in the Noninstitutionalized US Civilian Population Aged ≥18 Years—National Health and Nutrition Examination Survey, 2011–2016

Characteristic	Overall Adult Population							
	No. Tested	HBsAg			Anti-HDV			Anti-HDV Among Adult HBsAg Carriers % (95% CI)
		No. Positive	% (95% CI)	<i>P</i> Value	No. Positive	% (95% CI)	<i>P</i> Value	
Total	16 143	113	0.36 (0.29–0.46)		43	0.15 (0.10–0.23)	42 (29–56)	
Age group, y				.604			.441	
18–49	8690	59	0.34 (0.25–0.47)		21	0.13 (0.08–0.22)	38 (24–54)	
≥50	7453	54	0.39 (0.27–0.56)		22	0.18 (0.10–0.33) ^a	46 (27–66)	
Sex				.333			.998	
Female	8310	47	0.32 (0.24–0.43)		21	0.15 (0.08–0.28) ^a	47 (27–68)	
Male	7833	66	0.41 (0.28–0.58)		22	0.15 (0.09–0.25)	37 (26–50)	
Race/ethnicity ^b				<.001			<.001	
Asian, non-Hispanic	1964	70	3.37 (2.62–4.32)		29	1.51 (1.03–2.20)	45 (30–60)	
Other races/ethnicities	14 179	43	0.19 (0.14–0.25)		14	0.07 (0.03–0.16) ^a	39 (19–63)	
Birthplace				<.001			<.001	
US born	11 227	33	0.16 (0.10–0.24)		9	0.05 (0.02–0.15) ^c	33 (13–63) ^a	
Foreign born	4916	80	1.30 (0.96–1.76)		34	0.60 (0.40–0.90)	46 (33–60)	

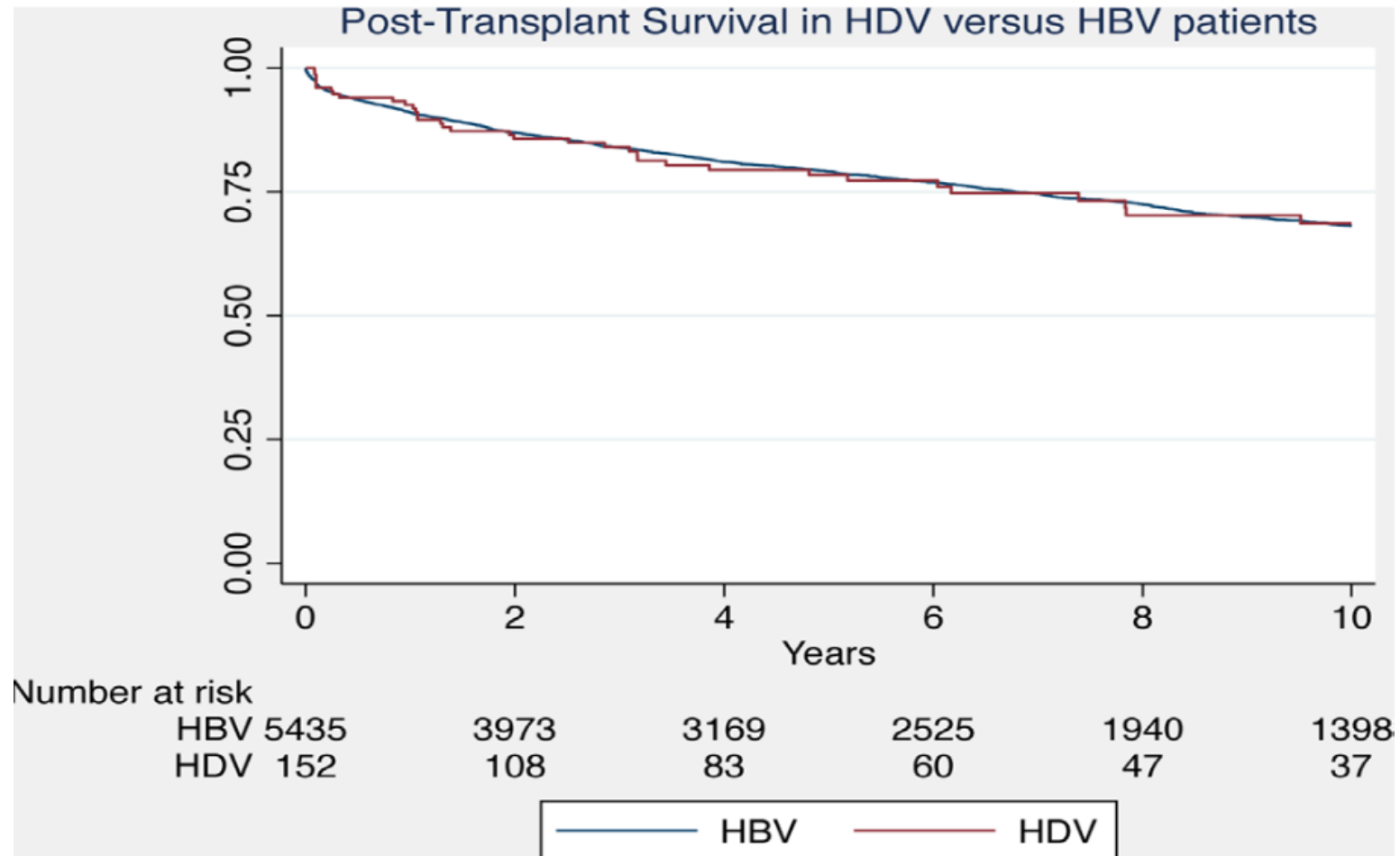


Liver transplantation for HDV



152 HBV/HDV and 5435 HBV patients who underwent LT

Post transplant survival in HDV



Problems beyond treatment

- Lack of general testing for HBsAg
 - Gral population or high-risk targeted
- HDV antibody vs PCR
 - Need both sequentially
- Easy access to genotyping
- Lack of IV programs
 - Positive impact in Europe

HDV in MN

- 43 individuals with HDV
 - 6 of them related (3 families)
- West and East Africa
 - Liberia and Somalia
- 30% have active HDV
- Patient-provider rapport
 - Immigrant populations
- Close follow up
 - PCR
- Early listing for liver transplantation