

Hepatitis Delta Infection

Epidemiology and Screening

Jose Debes, MD, PhD

Associate Professor of Medicine

Division of Infectious Diseases and International Medicine

University of Minnesota

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Disclosures

None

Hepatitis Delta (HDV)

- General aspects of HDV
- Overall epidemiology of HDV
 - Risk factors
 - Epidemiology in the United States
- Screening for HDV

HDV General Features

- Small RNA virus
- Requires Hepatitis B presence for infection
 - Relies on HBsAg for replication
 - Shares same hepatocyte receptor with HBV
- Two distinct transmission pathways
 - Co-infection (simultaneous HBV-HDV)
 - Super-infection (HBV then HDV)
- Can progress to cirrhosis within 2 years
 - 10-15%
- >3-fold increase in HCC risk
 - Compared to HBV alone

Epidemiology

- Multiple studies worldwide (numbering >2000)
 - Different methodology
 - Specific populations
 - Different testing approach
- Estimates of HDV+ individuals in HBV+
 - 4-16%
- Historically related to populations in West Africa and Eastern Europe

Risk Factors

- Intravenous drug use
- HIV co-infection
- Hepatitis C co-infection
- Hemodialysis
- High risk sexual behavior

Prevalence of Hepatitis Delta

Identified 2104 studies

Focused on 282 studies

~122,000 persons with HBsAg+
from 6 WHO regions

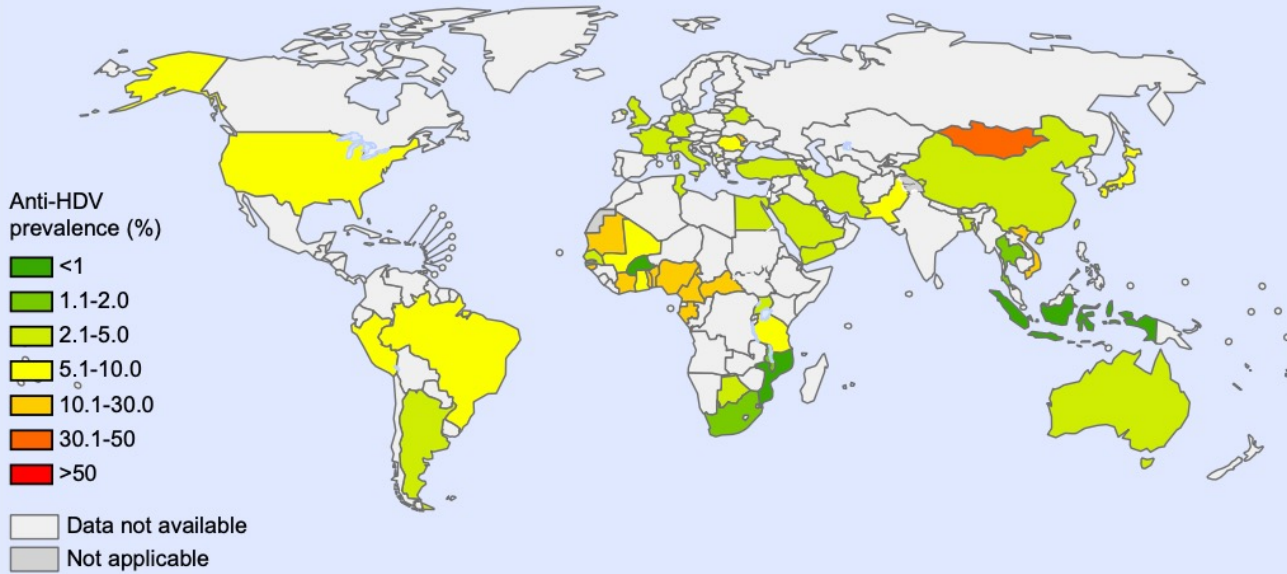
General population & Hepatology
clinics

Prevalence of HDV

- General population: 0.16%
- HBsAg+: 4.5%
 - 3% Europe
 - 6% Africa
 - 6% Americas
 - 3.5% South East Asia
- Hepatology clinics: 16%

Prevalence of Hepatitis Delta

Prevalence of anti-HDV among HBsAg positive people in the general population



Mongolia

- 36%

Rep. Moldova

- 15%

Gabon

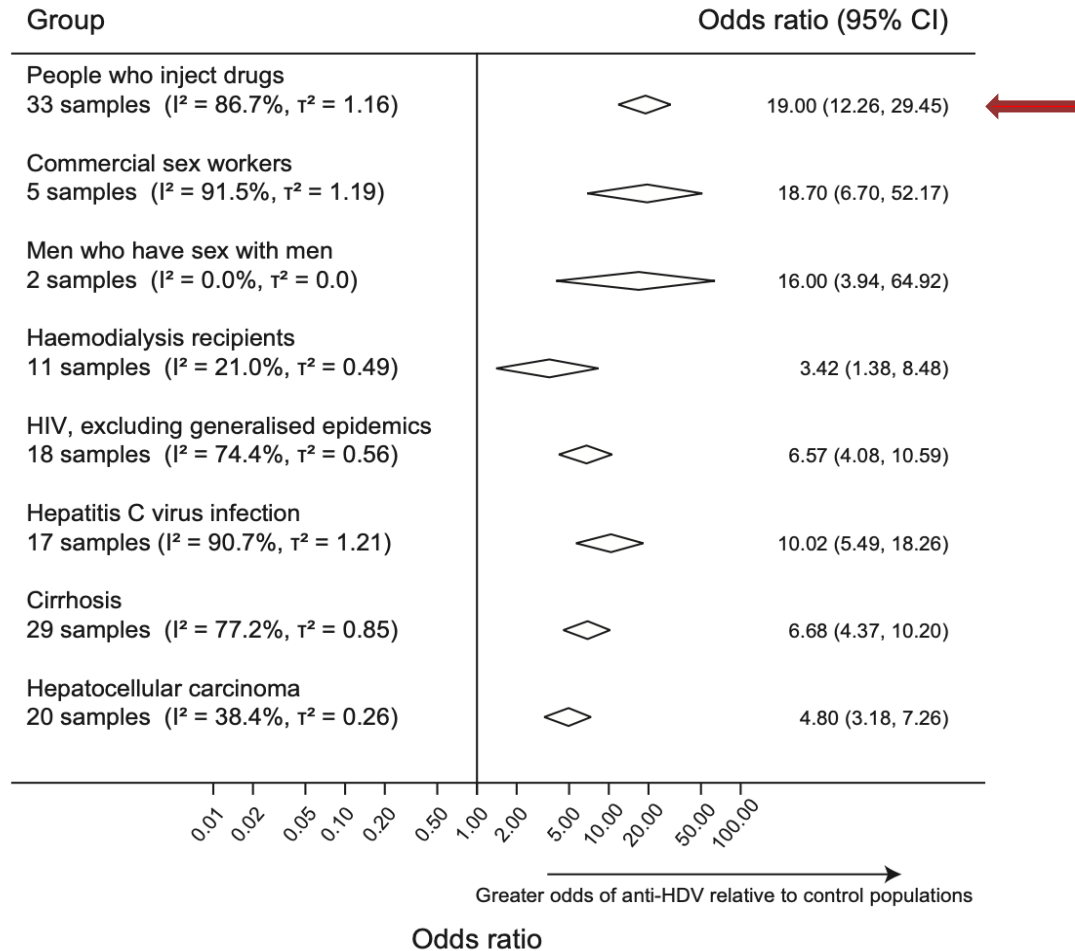
- 22%

Togo

- 18%

Mauritania

- 19%



Epidemiology of Hepatitis Delta in US

- 3-7% of HBV+
- More common in HCV, HIV, IVDU
- Genotype 1
- Mainly among immigrant populations

How to screen and why to screen

➤ How to screen

- HDV antibody

➤ Why to screen

- Potential treatment
- Closer follow up
 - Complications
 - HCC
- Modification of lifestyle
- Evaluation of close contacts

Screening Recommendation from Societies

- EASL: Everyone who is HBsAg+
- APASL: Everyone who is HBsAg+
- AASLD: Those with HBsAg+ at high risk (2018)
 - Highly endemic areas
 - IVDU
 - MSM
 - Multiple sexual partners
 - HIV, HCV
 - Elevated LFTs in the setting of low HBV DNA

Who to Screen

➤ General expert consensus:

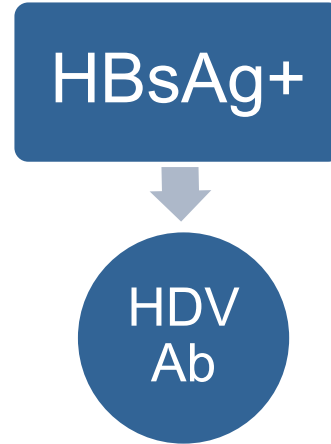
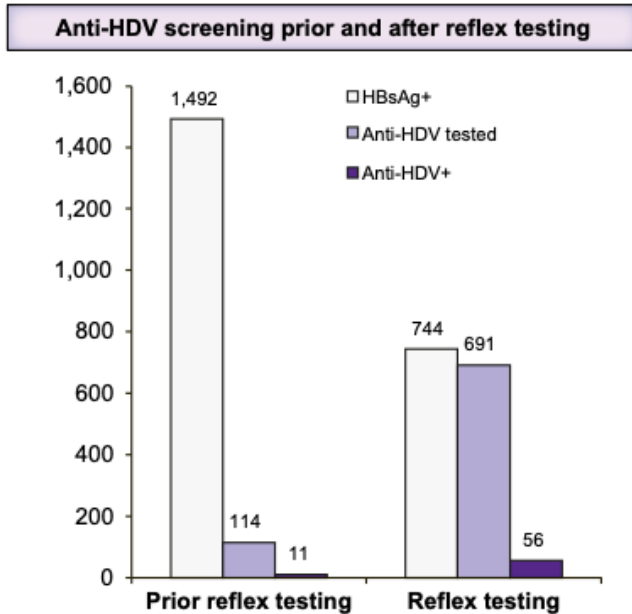
Who: Everyone infected with HBV (HBsAg+)

How: HDV antibody

How often to screen

- If no risk factors
 - One time
- If risk factors are present (intravenous drug use, etc)
 - Consider once a year screening for HDV

Reflex Testing for Hepatitis Delta



60% of HDV+ individuals had no risk factors

Summary

- HDV only occurs in HBV+ individuals
 - Every HBV+ individual is at risk for HDV
- Higher risk of HDV
 - HIV, HCV, IVDU, HD, CSW
- Certain countries in Africa and Asia have higher prevalence
 - Insufficient knowledge of the overall prevalence
- Most guidelines recommend to screen every HBV+ individual for HDV
 - HDV Ab

Acknowledgments

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