Hepatitis D prevalence and testing patterns among Australians with hepatitis B

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Background: Hepatitis D virus (HDV) and hepatitis B virus (HBV) coinfection can accelerate progression to cirrhosis and hepatocellular carcinoma. Australian clinical guidelines recommend people living with HBV receive once-in-a-lifetime HDV screening. However, there is limited understanding of HDV-screening uptake. This study aims to address the scarcity of data on HDV testing.

Methods: We analysed retrospective electronic medical records collated from a network of general practices and community health services across Australia. People included were living with HBV, defined as having their first record of an HBV-surface-antigen, HBV-DNA or HBV-e-antigen positive test 2015–2024. HDV-screening (an anti-HDV-Ab test), was assessed following each person's first observed HBV-positive result. We calculated overall and annual test uptake (people screened for HDV/people living with HBV), timeliness of test uptake (<three months, three–six months, >six months), and test positivity (people anti-HDV-Ab positive/people screened for HDV). Among people who were anti-HDV-Ab positive, we calculated uptake and timing of HDV-PCR testing.

Results: At 32 clinics, 2015–2024, 1,683 people were identified as living with HBV; 687 (41%) females, 996 (59%) males, mean age 41 years, and most (1245/1683, 74%) attended a general practice clinic. Of the 1,683 people, 235 (14%) were tested for anti-HDV-Ab. Annual testing rates fluctuated between 11 and 20%. Of the 235 people tested for anti-HDV-Ab, 134 (57%) were tested within the first three months, 22 (9%) within three–six months and 79 (34%) tested after six months, of first evidence of HBV-infection. Of the 235 people tested, 16 (7%) tested positive and of these, 3 (19%) received HDV-PCR testing. All HDV-PCR tests occurred within seven days of the initial positive anti-HDV-Ab result.

Conclusion: HDV-testing among people with HBV infection remains below guideline recommendations. Further work is needed to understand how testing rates could be improved.

Disclosure of Interest Statement: Nothing to disclose.