

Antiviral treatment uptake and factors associated with treatment among people receiving clinical care for chronic hepatitis B in Australia: The REACH-B Study

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Background: Although HBV antiviral therapies effectively suppress the virus, treatment is recommended for specific patient groups, based on clinical characteristics. This study evaluated treatment eligibility and uptake among REACH-B participants, a national cohort study of people with chronic HBV receiving care across diverse healthcare settings.

Methods: This analysis included participants from 17 sites in six states/territories [14 specialist services (n=5 with community outreach), two primary care clinics, one prison-based clinic]. Demographic and clinical data were collected from medical records. Participants with available ALT and HBV-DNA data at enrollment were included in analyses, categorized into three groups: (1) receiving antiviral treatment; (2) untreated despite eligibility; (3) untreated and ineligible. Treatment eligibility was determined using Pharmaceutical Benefits Scheme (PBS) criteria.

Results: Analysis population included 3257 participants (55% male; median age 49 years; 47% born in East/South-East Asia; 27% First Nations). HBeAg was positive in 14% (n=448) and 7% (n=220) had cirrhosis; 47% (n=1534) received antiviral treatment, 7% (n=241) were untreated despite eligibility, and 46% (n=1453) were untreated and ineligible. The proportion untreated despite eligibility was 9% and 7% among those with and without cirrhosis, and 15% and 7% among those HBeAg-positive and HBeAg-negative, respectively. Adjusted for sex, age, First Nations identity, and country of birth, the likelihood of not receiving treatment despite eligibility was significantly higher among women (aOR 1.52, 95%CI 1.23-1.88) and younger participants (age 31-50 vs. >70 years: aOR 2.18, 95%CI 1.23-3.86; ≤30 vs. >70 years: aOR 7.58, 95%CI 3.53-16.29).

Conclusion: Among REACH-B participants, most individuals meeting PBS treatment criteria receive treatment, although a small proportion remain untreated. This may partly reflect the lower threshold for elevated ALT in women (F:19, M:30 IU/ml), or limitations of PBS criteria for more nuanced treatment decision-making in younger people where elevated ALT may be

attributed to non-HBV factors. As treatment guidelines evolve and eligibility criteria broaden, monitoring these patterns will remain important.

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