

Hepatitis B

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Hepatitis B virus (HBV) infection remains a major public health issue with approximately 2 billion infected and an estimated 350 million chronically infected. South East and North East Asia are high prevalence areas in our region. While Australia is considered a low prevalence country for chronic hepatitis B (CHB), in 2000 up to 162 000 persons were estimated to have CHB.¹ Particular populations have high rates of infection, including people born in high endemicity countries, Indigenous Australians, men who have sex with men, and people who inject drugs (PWID).

HBV is a bloodborne and sexually transmitted viral infection spread either through punctured skin or mucosal exposure to contaminated blood or body fluids. The likelihood of developing chronic infection depends on the age at which a person is infected. The majority of infants (~90%) who become infected develop CHB, while only a minority of people exposed as adolescents or adults progress to chronic infection.

Chronic HBV infection is associated with significant morbidity and mortality, including cirrhosis and liver cancer.² About 25% of adults who were chronically infected during childhood die from HBV-related liver cancer or cirrhosis. This has particular relevance in Australia considering the large numbers of Asian-born Australians who were infected through perinatal exposure in their countries of birth. While therapy can control the infection and reduce sequelae, there is currently no cure for CHB.

Surveillance

Acute and chronic hepatitis B cases are routinely notified in all states and territories. Ascertainment of demographic data such as country of birth and Indigenous status, particularly for cases likely to be chronic, is incomplete and hinders a comprehensive description of the burden of HBV infection.

Prevention

Immunisation is the main prevention strategy to minimise HBV transmission. In Australia, the HBV vaccination program commenced in 1988, initially targeting neonates at high risk of infection and later expanding to universal infant vaccination and adolescent catch-up programs. Vaccination uptake and completion remain significant issues in PWID and other high-risk groups.

The recently-completed Hepatitis Acceptability and Vaccination Incentives Trial (HAVIT) was the first randomised controlled trial to assess the efficacy of incentives in increasing HBV vaccine completion in PWID. Participants allocated to the incentive condition were more than three times more likely to complete the vaccine series (87% vs. 66%, $p = .004$). Results indicate that the provision of modest financial incentives improved completion of the hepatitis B schedule among PWID.³ Contingency management approaches, including conditional cash transfers, should underlie more widespread efforts to prevent vaccine-preventable infections in this population.

Public health response

Australia's public health response to HBV has, until recently, concentrated on universal infant HBV vaccination. However, the development of the National Hepatitis B Strategy 2010–2013 demonstrates a broader commitment to controlling the infection and its sequelae. The National Strategy aims to reduce the transmission of, and morbidity and mortality caused by, HBV and to minimise the personal and social impact of infection.⁴ Priority populations include people from culturally and linguistically diverse (CALD) backgrounds, Aboriginal and Torres Strait Islander peoples, children born to mothers with CHB, and high risk unvaccinated adults. In addition the National HBV Testing Policy sets out a framework for providing quality testing and removing barriers to testing for health professionals.

NSW-specific activities include the development of a Hepatitis B Strategy, clinical guidelines relating to reactivation of CHB from immunosuppressive therapy, resources targeting people from CALD backgrounds, and education of health professionals and the community.

Health policy at national and state level, in combination with improved surveillance systems and monitoring the impact of HBV-related interventions, will help progress an appropriate public health response to this condition.

References

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