

Barriers to optimal screening and vaccination of hepatitis B contacts: a survey of general practitioners in NSW, Australia

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Article history

Publication date: December 2017

Citation: Najjar Z, Pritchard-Jones J, Liaw S-T, Gupta L. Barriers to optimal screening and vaccination of hepatitis B contacts: a survey of general practitioners in NSW, Australia. *Public Health Res Pract.* 2017;27(5):e2751749. <https://doi.org/10.17061/phrp2751749>

Introduction

It is estimated that at least 218 000 Australians are living with chronic hepatitis B (CHB) infection, but almost half of these remain undiagnosed, partly because of the often asymptomatic nature of the infection.¹ The *Australian National hepatitis B strategy 2014–2017*² acknowledges the increasing public health burden of CHB and emphasises the management of CHB in the primary care setting, and the testing and vaccination of priority populations, including close contacts of known cases. Close contacts are most at risk of infection; however, a previous study demonstrated that recommended screening and vaccination of close contacts is occurring suboptimally³, despite the availability of a free hepatitis B vaccine for contacts in Australia. The Sydney and South Western Sydney Local Health Districts (S&SWSLHDs) have the highest prevalence of CHB in New South Wales.⁴ We surveyed general practitioners (GPs) in the area to determine their contact management practices for CHB patients and any barriers they may encounter.

Methods

We surveyed GPs in S&SWSLHDs who had at least one patient notified as having CHB to the public health unit (PHU) between 1 June 2012 and 31 May 2013. The methods and study limitations are detailed elsewhere.⁴ Here, we report only on the contact management component of the survey.

Results

Completed questionnaires were returned by 123 of 213 eligible GPs (57.7% response rate). There were significant differences in gender, age group, and type of practice between study participants and all GPs in S&SWSLHDs.⁴ The average number of patients with CHB that respondents had notified during

the study period was slightly less ($n = 1.88$) than that of nonrespondents ($n = 1.96$) ($p = 0.73$).

Of the respondents, 119 GPs (96.7%) felt 'very' or 'reasonably' confident about screening and vaccinating close contacts of patients with CHB, yet nearly half ($n = 56$, 45.5%) of GPs needed more information about eligibility requirements for the free hepatitis B vaccine.

The majority of GPs surveyed ($n = 109$, 88.6%) indicated that they encountered at least one problem when trying to screen and vaccinate close contacts of their patients with CHB, with 45 (36.6%) encountering one difficulty, and 64 (52.0%) encountering two or more difficulties. Table 1 lists the most common difficulties encountered.

Table 1. Difficulties encountered by study participants when trying to screen and vaccinate close contacts of patients with CHB

| Difficulty | Number (%) of respondents |
|--|---------------------------|
| The contacts are patients of another doctor/practice | 67 (54.5) |
| Tried to, but patient will not provide me with information to establish identity of contacts | 39 (31.7) |
| Patient has not returned to receive result | 37 (30.1) |
| Cannot get in touch with any of the contacts | 35 (28.5) |
| The person is no longer my patient | 28 (22.8) |
| Other | 11 (8.9) |

Note: More than one response was allowed.

Despite the difficulties that GPs experience, more than half of the GPs surveyed ($n = 64$, 52.0%) believed that the primary responsibility for tracing of household and sexual contacts of patients with CHB should lie with the GP, with support from the PHU in difficult circumstances. A total of 38 (31.0%) believed this responsibility should lie with the PHU. Only 7 GPs (5.7%) believed it should lie solely with GPs.

Discussion

Early diagnosis of CHB through screening of at-risk populations, including close contacts, is important for ensuring that appropriate management is initiated early and ongoing transmission is controlled.³ We found that, although GPs working in a CHB high-prevalence area were confident with contact management and believed it was primarily their responsibility, the majority encountered difficulties when doing this. If GPs are to successfully have an increased role in preventing ongoing transmission through screening², a system that facilitates contact management and addresses the barriers encountered is required. One of the most commonly

described difficulties with contact management was the patient not providing information about contacts. Many GPs also indicated that patients had not returned to receive their results. This may be explained by CHB disproportionately affecting migrant populations, who are often already marginalised, have variable levels of health literacy and understanding of the severity of CHB, and attach stigma to CHB infection.² Other barriers related to a lack of continuity of care, particularly where contacts were seen by a different GP.

No national protocol exists that stipulates who is responsible for contact tracing. Active follow-up of all notifications by public health services, in conjunction with GPs, would be ideal to deal with these issues, but it is resource intensive and not necessarily feasible⁵; alternative methods for contact tracing therefore need to be explored. These could include passive follow-up by public health services by automatically sending letters to all cases about the need for contact screening, or the use of an electronic patient-initiated contact referral system, as used for contact tracing with sexually transmissible infections.

We identified significant barriers to optimal contact management by GPs, indicating that different approaches are required to support GPs as they take on a greater role in CHB management, and allow them to more effectively screen and vaccinate close contacts. Further research may identify whether these barriers also exist in Australian CHB low-prevalence areas. A national protocol for the public health response to notifications of CHB is currently being developed, which addresses the important role of primary care. This may address some of the contact tracing issues identified in our study.

Acknowledgements

We acknowledge Simone I Strasser, Miriam T Levy, and Benjamin C Cowie for their role in the development and analysis of this survey and its results.

Letter to the Editor

To read correspondence in response to this article, click [here](#).

Competing interests

None declared

Author contributions

ZN was the lead author and responsible for the study design and coordination, data collection, data analysis and writing the manuscript. JP-J, S-TL and LG contributed to the study design and writing the manuscript.

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