Challenges in managing patients in Australia with chronic hepatitis B: the General Practitioners’ perspective

Abstract

Objective: General Practitioners (GPs) are essential to reducing the impact of chronic hepatitis B (CHB) given their clinical management role where only 56% of people with the infection in Australia have been diagnosed. This qualitative study aimed to identify the challenges GPs face in effectively responding to CHB.

Methods: Semi-structured interviews were conducted with 26 GPs self-identifying as having a ‘high caseload’ of patients and/or a particular interest in CHB. Participants were recruited from five jurisdictions and came from diverse ethnicities, clinical experience and practice profile. Interview data were analysed according to the principles of grounded theory.

Results: Patient and GP knowledge, a lack of community awareness, and language and cultural diversity impeded the GP response to CHB. Communication with specialists was reported as challenging with unclear referral pathways, limited feedback from specialists after referral, and poor liaison and support for managing people living with CHB.

Conclusions: General Practitioners require additional skills and resources to support the effective management of people with CHB. These include improved awareness and knowledge about the infection, adequate financial resources to support patient management, and effective referral pathways and support.

Key words: chronic hepatitis B, general practice, public policy

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It is estimated that 218,000 people in Australia live with chronic hepatitis B (CHB) infection, with a significant increasing trend over the past decade. Most people with CHB in Australia were born in the Asia-Pacific region (38%) while 10% are Indigenous Australians. Chronic hepatitis B is a leading cause of hepatocellular carcinoma in Australia, one of the few cancers over the past 10 years experiencing an increasing mortality. Mortality associated with the progression from CHB to hepatocellular carcinoma can be prevented by effective clinical management provided patients are identified, diagnosed and treated in the early stages of the disease. However, it is estimated that only 56% of people with CHB in Australia have been diagnosed and notified of their infection.

General Practitioners (GPs) are essential in reducing the impact of CHB given their access to patients, their contact with high prevalence communities and their critical link in referring patients to specialist services. The Australian National Hepatitis B Strategy 2010-2013 notes a ‘central’ role for GPs in CHB that includes health promotion; screening and diagnosing; and monitoring and supporting people with CHB. Given the few studies investigating this role, the challenges perceived by GPs in the clinical management of CHB are not well-understood. This qualitative study interviewed GPs to determine, from their perspective, the challenges in managing people with CHB.

Methods

Recruitment
General Practitioners self-identifying as having a ‘high caseload’ of patients and/or a particular interest in CHB were recruited.

Invitations were sent to prospective participants who were either members and/or contacts of nine organisations providing hepatitis B and/or GP-related research, training or service delivery programs in Victoria, New South Wales (NSW), Queensland, South Australia, and Australian Capital Territory (ACT). Seven public hospital hepatitis or liver clinics in Victoria and NSW also distributed invitations to GPs referring people with CHB to their clinics. Invitations were sent to GPs listed on a publicly available database of hepatitis B cases in Victoria and NSW.

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database as speaking one of the main languages spoken in South-East Asian, Middle Eastern and African communities, given the evidence indicating a high burden of CHB in these communities.1,10

Participants indicating an interest in the study were contacted by a researcher and sent an information sheet and consent form. Participants were purposively recruited for gender, experience, ethnicity, geographical distribution, practice type and location, practice size, and the main population they cared for.

**Interview process**

Twenty-six face-to-face interviews and five telephone interviews were conducted in English by two researchers (one GP and one social researcher) using a semi-structured schedule with follow-up questioning to clarify responses or to seek additional information (Table 1). Semi-structured interviews provided the flexibility to investigate unexplored topics11 with the schedule revised as interviews progressed to investigate emerging themes.

The interviews took up to 50 minutes with the interview location determined by the participant, usually in their workplace. Participants consented to the interview, were given the opportunity to withdraw from the study, and offered $150 reimbursement for their time. The research received approval from the La Trobe University Human Research and Ethics Committee (FHEC10/102).

**Data analysis**

Interviews were digitally recorded, transcribed and analysed following the principles of grounded theory12,13 with broad themes identified as interviews progressed. This method allowed emerging concepts to be explored in subsequent interviews. No new themes arose in the final two interviews, implying that data saturation had been reached. Transcripts were read several times and data organised independently into codes by two researchers. Themes were identified and discrepancies discussed by the team to reach consensus. Analysis was enhanced by constant comparison with the transcripts and research from an initial literature review.13

**Results**

Twenty-six GPs were interviewed. Their background characteristics including their practice profiles are summarised in Table 2. More than half the GPs had practised for at least 15 years, including eight with more than 30 years’ experience. Participants had varied experience in the management of people with CHB, with five caring for 100 or more people with CHB, while five cared for less than 10 people with CHB. The GPs were linguistically skilled with sixteen participants communicating with patients in a language other than English, with one or more Chinese languages and Vietnamese being most common. GPs primarily cared for populations from similar linguistic and cultural backgrounds. Participants cared for diverse populations including culturally and linguistically diverse (CALD) communities, Indigenous Australians, refugees, people who inject drugs, men who have sex with men and university students.

GPs identified four broad challenges that acted as barriers to the effective clinical management of CHB, including knowledge and awareness about the infection, relationships with specialist clinics, health system barriers and communicating with people with CHB.

**Knowledge and awareness**

Participants described an inadequate understanding of CHB among GPs, their colleagues, the communities most affected, and people with CHB as a key issue affecting clinical management.

**General Practitioner knowledge**

Many participants (n=20) reported that GP knowledge gaps about CHB occurred given its complex natural history and frequent updates in clinical management over recent years, with one noting:

> What you learnt in medical school, whenever you went to medical school, is completely useless. Unless you’ve done some up-skilling on hepatitis B, you’ve got no idea about the virus. (GP22)

One significant change in CHB clinical practice relates to the use of the term ‘carrier’ which has been superseded given better understanding of the natural history of CHB. While the use of this term did not necessarily signify ignorance or poor practice, eight GPs described people in the immune tolerant or immune control phase of CHB as ‘hepatitis B carrier’ or ‘healthy carrier’.

The breadth and diversity of competing health issues dealt with by GPs affected the priority of maintaining knowledge about CHB. One GP caring for between 15 and 20 people with CHB described CHB as a lesser priority.

> If you’ve got a practice with 2,000 patients and you’ve got 20 with hep B and all the others have smoking disease or heart disease or diabetes, it’s far more time efficient to maintain skills in … other areas. (GP7)

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**Table 1: Semi-structured interview schedule.**

<table>
<thead>
<tr>
<th>Question</th>
</tr>
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<tbody>
<tr>
<td>What should be the role of GP in the clinical management of patients with CHB?</td>
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<tr>
<td>Do you follow any particular guideline or protocol in testing patients for hepatitis B or referring patients with CHB to a specialist?</td>
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<tr>
<td>What limits your role as a GP in the clinical management of patients with CHB?</td>
</tr>
<tr>
<td>From your perspective as a GP, what are the main challenges (barriers) to the effective involvement of GPs in the diagnosis and management of people with CHB?</td>
</tr>
<tr>
<td>Do you think the response to hepatitis B from the perspective of general practice needs to be strengthened?</td>
</tr>
<tr>
<td>What supports are or could be provided to GPs to strengthen their response to hepatitis B?</td>
</tr>
<tr>
<td>What would help GPs respond to people with hepatitis B more effectively?</td>
</tr>
<tr>
<td>Is there anything that could make you feel more confident about responding to CHB?</td>
</tr>
</tbody>
</table>
Community knowledge

A poor understanding of hepatitis B within the general public, particularly within communities with a greater prevalence of the infection, created particular challenges for the clinical management of CHB.

[People from Asian communities] only know that hep B like hep A to them, [which] is transmitted through food and poor hygiene. (GP10)

Public education was acknowledged by five GPs as an important motivator in engaging GPs in clinical management of CHB, particularly in screening and diagnosis.

[Do] not underestimate the importance of the public education campaign to those communities ... it will get on the GP’s radar because the patients will be coming and saying ... “I read this thing about hepatitis B”. (GP9)

Concerns were expressed that people with CHB, with poor knowledge about the infection, would be unaware of the potential seriousness of the disease and the need of treatment or ongoing monitoring.

The communities in Australia most affected by CHB are culturally and linguistically diverse. This creates specific challenges in providing information about CHB to people who are not familiar with the western medical model, or who hold unrealistic expectations regarding what western medicine can provide. One GP working with refugees noted that:

A lot of patient population … come from health services that are based on acute settings ... It’s a new paradigm for them to understand chronic disease that requires regular review over years rather than a treatment course that is limited. (GP23)

Relationships with specialist clinics

Three major challenges emerged regarding the relationship between the GP and specialist clinicians: the lack of an endorsed referral protocol; specialist communication about referred patients; and the support and continuing education of GPs in the clinical management of CHB.

Referral protocol

All participants had referred patients with CHB to a specialist service in some stage after diagnosis and/or monitoring. Six participants were aware of a referral protocol, while others used an ad hoc approach.

Where GPs are more interested, we can make a clinical judgment about whether we can manage them or not, but [there] should be a clear pathway. ... [If] a GP doesn’t want to go any further [then] they should be able to have [access to] a clear and simple referral pathway. (GP9)

Feedback from specialist to GP after referral

Losing contact with patients after referring to specialists was noted, with two GPs describing patients as being “absorbed” (GP13) or “vacuumed” (GP7) by the public hospital system after referral. One participant described public hospital specialists as “not the best communicators” (GP23), while GPs were typically satisfied at the level of communication from private specialists after the consultation.

Table 2: Background and practice profile of participants (n=26).

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
</tr>
<tr>
<td>Years working as a GP in Australia a</td>
<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>2</td>
</tr>
<tr>
<td>5 to 15 years</td>
<td>9</td>
</tr>
<tr>
<td>16 to 29 years</td>
<td>7</td>
</tr>
<tr>
<td>30 years or more</td>
<td>8</td>
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<tr>
<td>Language spoken other than English b</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
</tr>
<tr>
<td>Australian jurisdiction</td>
<td></td>
</tr>
<tr>
<td>Victoria</td>
<td>16</td>
</tr>
<tr>
<td>NSW</td>
<td>4</td>
</tr>
<tr>
<td>ACT</td>
<td>2</td>
</tr>
<tr>
<td>South Australia</td>
<td>2</td>
</tr>
<tr>
<td>Queensland</td>
<td>2</td>
</tr>
<tr>
<td>Practice location c</td>
<td></td>
</tr>
<tr>
<td>Metropolitan area</td>
<td>25</td>
</tr>
<tr>
<td>Regional or rural area</td>
<td>3</td>
</tr>
<tr>
<td>Practice type</td>
<td></td>
</tr>
<tr>
<td>Private – solo</td>
<td>4</td>
</tr>
<tr>
<td>Private – group</td>
<td>14</td>
</tr>
<tr>
<td>Public</td>
<td>5</td>
</tr>
<tr>
<td>Community Health Centre</td>
<td>7</td>
</tr>
<tr>
<td>Major population cared for c</td>
<td></td>
</tr>
<tr>
<td>Culturally and Linguistically Diverse (CALD) communities</td>
<td>11</td>
</tr>
<tr>
<td>Refugees</td>
<td>6</td>
</tr>
<tr>
<td>People who inject drugs</td>
<td>6</td>
</tr>
<tr>
<td>Indigenous</td>
<td>4</td>
</tr>
<tr>
<td>Men who have sex with men</td>
<td>3</td>
</tr>
<tr>
<td>University students</td>
<td>2</td>
</tr>
<tr>
<td>No specific group</td>
<td>3</td>
</tr>
<tr>
<td>Approximate number of patients with CHB in their practice</td>
<td></td>
</tr>
<tr>
<td>Fewer than 10</td>
<td>5</td>
</tr>
<tr>
<td>10 to 30</td>
<td>8</td>
</tr>
<tr>
<td>31 to 99</td>
<td>8</td>
</tr>
<tr>
<td>100 and more</td>
<td>5</td>
</tr>
</tbody>
</table>

Notes:

a Median: 18 years; Range: 3 to 37 years
b The following languages were spoken: Chinese dialects and/or Vietnamese (n=12); Urdu and Sindhi (n=1), Tamil (n=1), Indonesian (n=1), Malaysian (n=1), Arabic (n=1), Persian (n=1), Pitjantjara (n=1). Nine participants spoke more than one non-English language.
c Some GPs work in more than one practice and were counted in more than one category.
The feedback is poor in public hospitals [but] private specialists are excellent. ... That makes a big difference in encouraging us to refer [to private specialists]. (GP2)

Specialist feedback was believed to be important in the professional development of GPs, with one noting that: “the letters that they write back to us is a very important part of our learning” (GP9).

GP support

Given the variations in natural history of CHB, several participants (n=12) recognised the need for regular expert advice in managing CHB. It was generally agreed that their local hospital or liver clinic had no efficient or accessible process for supporting GPs.

GPs are often stuck for advice. ... Having established routes of contact and how they can easily and quickly get hold of people to ask their questions is the most important thing. (GP1)

Health system challenges

Government health policy including prescribing rights, Medicare funding, and assumed limits on testing and screening affected the clinical management of CHB by GPs.

Prescribing rights

Current Australian Government policy limits public funding for the reimbursement of CHB treatment prescriptions to clinical specialists. One GP noted that current policy focusing on improving specialist responses to CHB ‘excluded’ GPs from a significant clinical management role and that this had occurred as a result of “a fear of territory encroachment by a very powerful lobby of gastroenterologists” (GP20).

Limits on reimbursing anti-viral treatment essentially affected the relationship between GPs and their patients, with one GP suggesting that the lack of prescribing rights reduced the relevance of GPs to their patients.

The key is specialist. He is the one who is prescriber and GP is just [there to tell the patient] “How are you today? Are you fine today? Thank you very much. See you tomorrow” ... The patients are smart. They say “I’m seeing the doctor. He does nothing”… we have to make the GP be still valuable by prescribing power. (GP13)

One Australian Government program implemented to increase access to HIV treatment provides for the training, ongoing support and authorisation of GPs to prescribe these medications. A discrepancy exists in prescribing rights where trained and authorised GPs can prescribe drugs used for HIV/hepatitis B co-infection but are unable to prescribe the same drug for CHB mono-infection.

If I’ve got a patient who’s HIV and hep B co-infected, I can start them on Truvada (a combination of Tenofovir and Emtricitabine) to control hepatitis B, but if I’ve got a hep B mono-infected patient I can’t actually prescribe Tenofovir. (GP17)

Resourcing

The complex natural history and an inadequate understanding of CHB by people living with the infection requires GPs to spend time to ensure that people living with CHB understand the implications of the infection and of the patients role in adhering to clinical management. Current government funding for GPs is inadequate to support these longer consultations.

If you make a half an hour appointment, the rebate for that compared to doing six minutes [consult] which is five patients, just doesn’t add up economically. (GP15)

To reduce the burden associated with chronic disease, the Australian health system funds GPs to provide additional care for patients with chronic conditions such as CHB. This was challenged by the ethical and professional commitments of GPs to provide the best care for their patients as part of their usual professional practice with one participant perceiving the offer of incentives for best practice “insulting” (GP15).

Over-servicing

International and Australian clinical practice guidelines, the National Hepatitis B Strategy 2010-2013, and the National Hepatitis B Testing Policy recommend screening for hepatitis B in people born in endemic countries. However, three GPs with a high caseload of patients born in South-East Asia did not routinely screen new patients from high prevalence countries because of concerns of being audited by Medicare (Australia’s publicly funded universal health scheme) for the ‘over-service’ of patients.

If I do that [screening], I would be doing that to 95% of my patients and … my name would be high up on the list of doctors who … over-service patients. (GP20)

Communicating with people living with CHB

Inadequate knowledge about CHB among people living with the infection (noted previously) in combination with complex issues relating to language and cultural diversity created significant challenges for the clinical management of CHB in general practice.

Language

There was a high degree of cultural concordance between most of the GPs and their patients. Of the 10 GPs who spoke only English, only two identified language as a barrier to the effective management of their patients with CHB. All six of the GPs working with refugees and three others, used on-site and/or telephone interpreters in consultations with patients with CHB. While several GPs (n=8) had reservations about telephone interpreting, one suggested that patients preferred this system than on-site interpreters.

Our patients will tell you that they’d rather have a good phone interpreter than a person on-site. … They’d rather have the person they didn’t know … providing that person was a competent interpreter. (GP24)

Cultural diversity

In addition to the language issue noted above, one GP working with Australian Indigenous communities described his patients’ cultural beliefs as focussed on a non-physical aetiology of illness.

Their view of health is different. … They don’t necessarily see everything in terms of Western medicine. ...There’s all that spiritual stuff. (GP15)
Conclusions

Inadequate knowledge and awareness of CHB among GPs, the broader community, and people living with the infection, poor communication with specialist clinics, health system restrictions, and difficulties in communicating with people living with CHB were the main challenges identified by GPs in relation to the clinical management of CHB.

There is an increasing burden on the community resulting from CHB infection. The number of people dying in Australia as a result of CHB is projected to increase from 450 per year in 2008 to 1,550 per year in 2017 with the total direct costs estimated to increase to $2.4 billion by 2017. The National Hepatitis B Strategy 2010-2013 described "general practice as part of a healthcare team … central to the healthcare experience of people living with chronic hepatitis B". This study provides empirical evidence to inform the development of strategies and interventions to strengthen the capacity of GPs to contribute to the clinical management of CHB.

GPs' awareness and understanding of CHB needs strengthening, given the evolution of knowledge of its natural history and clinical management. This analysis supports the findings of other Australian research, including one study of GPs that found that 70% of the participants expressed a need to strengthen their professional skills in managing patients with CHB, and another reporting that 28% of GP participants lacked confidence in interpreting hepatitis B serology.

The typically high cultural and linguistic concordance between most GPs and patients in our study means that it is pivotal that GPs from communities with a high prevalence of CHB are skilled in its management. Competing educational priorities is a major challenge in general practice, and GPs who deliver care to communities at greater risk of CHB need to be motivated to receive advanced training for clinical management of CHB. Recent GP educational activities have shown promise in supporting GPs to effectively manage CHB patients.

Several participants reported that people living with CHB often had little or inaccurate knowledge about the infection. This supports previous Australian research showing some people with CHB associating hepatitis B with poor sanitation, hepatitis B as an infection progressing to HIV, or identifying hepatitis A, B and C as sequential levels of hepatitis. Low community awareness of hepatitis B was identified as another barrier supporting the findings of Australian and North American studies reporting poor knowledge of hepatitis B among South-East Asian communities associated with inadequate screening.

Diversity in hepatitis B referral practices among participants highlight the need for agreed CHB clinical guidelines for GPs and referral protocols. None of the available guidelines acknowledge or respond to the fact that most cases of CHB are diagnosed by GPs. Efforts have been made in recent years in developing guidelines for GPs and referral protocols; however, only few participants were aware of these.

Current policy restricting CHB treatment prescription reimbursement to specialists was acknowledged as a significant challenge to the clinical management of people with CHB in general practice. Resistance to the public funding of CHB treatment prescriptions by GPs supports previous Australian research where specialists expressed reservations on developing a shared care framework in which specialists, GPs and nurses would be actively involved in the clinical management of people with CHB. While concerns have been expressed by some specialists about the capacity of GPs to be involved in clinical management of CHB, the experience in expanding access to HIV treatment through the accreditation of trained and skilled GPs has been successful.

Several GPs identified that the risk of being audited for screening people based on their country of birth limited the screening and subsequent diagnosis of people with CHB. Without an effective diagnosis, people with the infection will be unaware and unable to respond effectively to the infection. Medicare guidelines clearly support the reimbursement of health screening "to ensure the patient receives any medical advice or treatment necessary to maintain their state of health". This provides the rationale and support for GPs to screen people from the communities experiencing a greater prevalence of CHB.

Communication with patients was reported as a challenge by only two of the 26 GPs. This was because most participants in this study were from CALD backgrounds, spoke two or more languages, and were more likely to share cultural and linguistic concordance with their patients living with CHB. This differs from European and the US studies where language was identified as a major challenge in the management of people with CHB. It challenges the findings of a recently published Australian study investigating GPs practising in a region where 30% of residents were from non-English speaking backgrounds and where 89% of GPs believed that language difficulties were the main barrier to patients accessing treatment.

The use of qualitative methodology in this study provided us with the opportunity to explore and capture the complexity of experiences described by participants in relation to the clinical management of CHB. Given the fundamental limits of qualitative approaches, our analysis is not intended to be read as representative of the broader general practice workforce or necessarily transferable to other settings. The findings of the study can provide useful insights to inform the direction and development of strategic and programmatic interventions targeting GPs who work with communities experiencing a higher prevalence of CHB.

This study indicates that GPs require additional knowledge, skills and resources to support the effective management of people living with CHB. These include improved awareness and knowledge about the infection among GPs, people with CHB and the broader community, adequate financial reimbursement for effective patient management, and consensus-based referral pathways and support.
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