Hepatocellular carcinoma surveillance for viral hepatitis and cirrhotic patients in primary care: a systematic review of the evidence

Nguyen A^1 , Roydhouse, J^1 , Milley K^2 , Druce P^2 , Wong J^2 . McNamara M^2 , Karnchanachari N^2 , de Graaff B^1

Background: Hepatocellular carcinoma (HCC) incidence and mortality rates have increased substantially in recent decades. In part, this is driven by migration from hepatitis B endemic regions. Whilst HCC surveillance is recommended for a range of groups living with chronic hepatitis B (CHB) and/or cirrhosis, no large-scale programs have been introduced except in Japan and Korea. Primary care is accessible in most developed countries: therefore this may be an ideal setting for HCC surveillance. Aim: Summarize the evidence for HCC surveillance in primary care, including barriers and facilitators.

Methods: The study used the PRISMA-P protocol; searches were conducted in five biomedical databases from inception to October 2021. Due to heterogeneity, a narrative synthesis was conducted.

Results: Thirty-one studies were included: 87% (n=27) originated from the US, with just 6% (n=2) from Australia. The majority of studies were based on retrospective cohorts (45%, n=13) and cross-sectional surveys (29%, n=9). All studies focused on primary care providers (PCPs). The main themes identified for HCC surveillance for viral hepatitis/cirrhosis patients were:

- 1. When comparing surveillance rates between PCPs and medical specialists, PCPs had consistently lower rates. Three studies reported that increased support for PCPs (patient reminder systems, nurse specialists) improved rates.
- 2. Barriers associated with PCPs conducting HCC surveillance included lack of awareness or knowledge of: recommendations/guidelines from professional societies; evidence that surveillance reduces mortality; and that HCC can occur in CHB patients in the absence of cirrhosis.
- 3. Provider-perceived patient barriers included costs incurred by patients; challenges of navigating the health system, particularly for culturally and linguistically diverse people; and poor patient adherence.

Conclusion: Bolstering support in primary care for HCC surveillance will contribute to increased rates of HCC surveillance, particularly in settings with high prevalence of CHB. Importantly, patient perspectives of surveillance need to be understood to reduce potential barriers.

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¹ Menzies Institute for Medical Research, University of Tasmania

² Primary Care Collaborative Cancer Clinical Trials Group, Department of General Practice, Centre for Cancer Research, University of Melbourne