Gaps remain in the hepatitis C care cascade among people with hepatocellular carcinoma: an Australian retrospective multicentre cohort study

Authors: Flores JE[1,2], Thompson A[1,2], MacIsaac M[1], Hong T[1,2], Roberts S[3], Kemp W[3], Majeed A[3], Sawhney R[4], Bloom S[4], Valaydon Z[5], Sinclair M[6], Mishra G[7], Sood S[9], Haridy J[10], Ryan M[1,2], Jessica Howell[1,2,8]

[1]*St Vincent's Hospital Melbourne, Fitzroy, Australia;* [2]*University of Melbourne, Parkville, Australia;*[3]*Alfred Health, Melbourne, Australia;* [4]*Eastern Health, Box Hill, Australia;* [5]*Western Health, Footscray, Australia;* [6]*Austin Health, Heidelberg, Australia;* [7]*Monash Health, Clayton, Australia;* [8]*Burnet Institute, Melbourne Australia;* [9]*Northern Health, Epping Australia;* [10]*Melbourne Health, Melbourne Australia.*

Background: In this cohort study, we describe the HCV care cascade in people with HCV-HCC and factors associated with timely care.

Methods: All consecutive incident HCC cases diagnosed between 1st January 2018 to 31st December 2021 across six tertiary hospital networks in Melbourne were retrospectively identified, then prospectively followed to 31st October 2023. Demographic and clinical data were collected from hospital HCC databases, electronic medical records and pathology. Bivariable analyses were conducted using Chi square and Wilcoxon rank-sum test. Cox multivariable regression modelling was used to determine factors associated with survival from HCC diagnosis.

Results: 1013 incident HCC cases were diagnosed, of whom 34% (n=348) were due to HCV. 80% (n=279) were male, 82% Caucasian, with median age 61 years (IQR 57, 65). 34% had current alcohol misuse and 33% reported past or current injecting drug use.

61% (208/341) had been treated and achieved SVR at HCC diagnosis. Median time to HCC diagnosis post SVR was 2.8 years (IQR 1.6, 4.2 years). 95% of HCV-HCC cases had cirrhosis; of these, 72% had known cirrhosis at HCC diagnosis. 50% of people with HCV-HCC were enrolled in surveillance at HCC diagnosis. In those with known cirrhosis (n=238), surveillance uptake was 69%; 90% in those attending hepatology services.

Current alcohol misuse was associated with HCV treatment uptake (OR 0.5, 95% CI 0.3-0.8), undiagnosed cirrhosis (OR 2.1 (95% CI 1.3-3.4, p=0.004), and HCC surveillance uptake (OR 0.5, 95% CI 0.3-0.8).

Conclusion: Despite widespread availability of DAAs, many people with HCV-HCC remain untreated, have not been evaluated for cirrhosis and have not been enrolled in HCC surveillance. Alcohol misuse is a major barrier to uptake of timely HCV care. Greater investment in broader health promotion and testing coupled with increased access to liver fibrosis assessment are needed to reduce deaths from HCV-HCC.

Disclosure of Interest Statement: This study was supported by a St Vincent's Foundation REF grant and Avant Australia research grant. JH is supported by an NHMRC Investigator fellowship. This project received in-kind support from Burnet Institute Eliminate C Australia program. We acknowledge the people living with HCC who generously participated in this study and their healthworkers. The authors have no relevant disclosures to this work.