Title: Deaths from liver cancer continue to rise in Australia: is elimination by 2030 possible?

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Abstract:

Deaths attributable to cirrhosis and liver cancer caused by viral hepatitis in Australia have continued to rise over the past 25 years. It is possible to eliminate viral hepatitis as a public health concern and reduce liver-related mortality in Australia through harm reduction, early diagnosis and treatment of viral hepatitis.

Keywords: Epidemiology, Liver cancer, viral hepatitis, hepatitis B, hepatitis C, Indigenous health, public health

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Abstract:

Deaths attributable to cirrhosis and liver cancer caused by viral hepatitis in Australia have continued to rise over the past 25 years. It is possible to eliminate viral hepatitis as a public health concern and reduce liver-related mortality in Australia through harm reduction, early diagnosis and treatment of viral hepatitis.

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Figure 1.jpg

Deaths from liver cancer continue to rise in Australia: is elimination by 2030 possible?

Two recently released datasets highlight the increasing health burden associated with viral hepatitis in Australia, and the importance of scaling up prevention and treatment to avert adverse outcomes in those affected. Estimates from the Global Burden of Disease (GBD) Study 2015 demonstrate a continued increase in deaths attributable to cirrhosis and liver cancer caused by viral hepatitis in Australia (see Figure 1).¹ Of all 167 causes of death in Australia analysed by the GBD study, liver cancer had the fifth highest annual percentage increase in mortality between 1990 and 2015.¹ While the fact that liver cancer is the fastest increasing cause of cancer death in Australians has previously been highlighted,² these GBD findings emphasise the relative importance of liver cancer among all causes of death of Australians. Liver cancer also remains an outlier in the otherwise continued positive progress in cancer prevention and care, and the latest Australian Institute of Health and Welfare (AIHW) cancer report further demonstrates that:

- Liver cancer is projected to climb from the 7th most common cause of cancer death in 2012 to the 6th in 2016
- In an era of increasing cancer survivorship 5-year survival for liver cancer continues to be lower than all cancers - 16% compared with 67%; and
- Liver cancer mortality was three times greater in Indigenous compared with non-Indigenous Australians in 2014.³

For the 443,000 Australians estimated to be living with viral hepatitis,⁴ reduction of liver-related mortality is possible with harm reduction, early diagnosis and

appropriate treatment. The welcome revolution in hepatitis C antiviral therapy and subsequent listing of these agents on the Pharmaceutical Benefits Scheme (PBS), together with increased availability of effective hepatitis B antivirals, has the potential to reverse the increasing numbers of deaths attributable to viral hepatitis.⁵ The first six months of direct-acting antiviral therapy on the PBS has seen over 25,000 people treated.⁵ Sustained virological response in people living with hepatitis C will reduce their risk of liver cancer however those with cirrhosis will continue to have a significant five-year risk at 5.3% and ongoing six-monthly surveillance with ultrasound is recommended.⁶ Given that liver cancer is more common in people born overseas^{7,8} and liver cancer mortality is markedly greater in Indigenous Australians³ the provision of equitable access to care including assessment of fibrosis, liver cancer surveillance and treatment for viral hepatitis across Australia is essential to impact on the rising mortality observed in the GBD.

The critical challenges now are to sustain the early momentum of the new hepatitis C virus therapy era, urgently increase the proportion of people living with chronic hepatitis B who have been diagnosed, and triple the number of people receiving antiviral treatment for hepatitis B, in line with National Strategy targets.^{9,10} In our region, Australia is uniquely placed to eliminate viral hepatitis as a public health concern. It is vital that we turn this possibility into reality for all Australians living with viral hepatitis, and demonstrate to the world that the goal of elimination is achievable in the coming decades.

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Figure legend

- Cirrhosis and other chronic liver diseases due to hepatitis B and C
- Liver cancer due to hepatitis B and C

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