EDITORIAL

Elimination of hepatitis C in Australia by 2030: a decade and counting

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Direct-acting antiviral therapy for chronic hepatitis C virus infection is one of the great advances in clinical medicine in recent decades.[1] Several regimens have been licensed since 2014 which allow simple, once-daily oral dosing for 8–12 weeks. These regimens have proved to be tolerable and highly efficacious (cure rates of >95%). The listing of direct-acting antiviral regimens on the Pharmaceutical Benefits Scheme (PBS) from March 2016 has transformed the management of hepatitis C in Australia and has provided optimism for the elimination of hepatitis C virus.

The World Health Organization (WHO) has developed ambitious targets for hepatitis C virus elimination by 2030. These include:

- improving primary prevention e.g. safe injections in healthcare settings and for people who inject drugs
- upscaling screening for hepatitis C and linkage to care, enabling treatment for 80% of those with chronic hepatitis C
- lowering the impact of disease, including a 65% reduction in hepatitis C-related deaths and a 90% reduction in new infections.[2]

In 2018, 12 countries were considered 'on-track' to achieve the WHO elimination targets. These include several high-income countries – Australia, France, Iceland, Italy, Japan, South Korea, Spain, Switzerland, United Kingdom – and three low–middle income countries – Egypt, Georgia, Mongolia.

Of an estimated 188,000 people in Australia with chronic hepatitis C, around 85,000 had been treated with direct-acting antiviral therapy by the end of 2019. Importantly, uptake was comparable, if not higher, among high-risk populations including people who currently inject drugs and HIV-infected gay and bisexual men, compared to low-risk populations.[3] Within the broader population of former and current injecting drug users, evidence from a large New South Wales data linkage study indicates that those who are currently drug dependent (i.e. taking opioid agonist therapy such as methadone or buprenorphine or in hospital for a drug-related cause) have a higher uptake than those who are not currently drug dependent.[4]

The rapid uptake of direct-acting antiviral therapy has translated into around a 30% reduction in deaths from liver problems related to hepatitis C since 2015 and a plateauing of hepatitis C-related hepatocellular carcinoma cases.[5] This is following a steady rise in these cases and deaths over the previous decade. These trends indicate a high uptake of therapy in people with more advanced liver disease. There is also evidence of a declining incidence of hepatitis C among high-risk populations, including downward trends in new infections in younger age groups. This is consistent with a probable benefit from hepatitis C 'treatment as prevention'.[6]

Australia is an international leader in its shift to managing hepatitis C in primary care and drug and alcohol services, with most people now prescribed therapy by non-specialists. There is, however, much more to do, particularly given the continued decline in people treated per year (from more than 32,000 in 2016 to around 11,500 in 2019).

Although more than 6000 GPs have prescribed direct-acting antiviral therapy, most have only prescribed it for one or two patients. Further research needs to be undertaken to understand if this low prescribing is related to suboptimal hepatitis C screening, barriers to prescribing, or low caseloads.

GPs clearly have a key role in increasing testing for hepatitis C. Taking a non-judgemental approach, they should consider testing patients with elevated liver enzymes but no readily identifiable risk factors. Hepatitis C assessment and treatment monitoring have been simplified with the advent of well-tolerated, highly curative direct-acting antiviral therapy. However, key elements remain including staging of liver disease (hepatic elastography, shear-wave elastography, surrogate biomarkers), evaluation of potential drug–drug interactions and testing for HIV and chronic hepatitis B.

There are several strategies required to achieve hepatitis C virus elimination in Australia.

First, treatment assessment and delivery should continue to be simplified. The recent removal of mandatory pre-treatment genotype testing is an important first step given most patients are now being treated with pan-genotypic regimens (sofosbuvir/velpatasvir, glecaprevir/pibrentasvir). Further measures will include adoption of finger-prick-based rapid point-of-care hepatitis C RNA testing (result within 1 hour) or dried blood spot sample (sent to a laboratory) to confirm active infection, particularly in patients with difficult venous access. The extremely favourable safety profile of the pan-genotypic regimens means

that, unless there is evidence of cirrhosis, an RNA test before treatment is started and then three months after the end of treatment to assess for cure may be the only investigations required in the near future.

Second, monetary incentives for both practitioners to prescribe and patients to start therapy should be considered.

Third, hepatitis C virus screening (and potential treatment) needs to be integrated into settings with high-risk populations. These include prison entry, on admission to hospital for drug injecting-related conditions, and within drug and alcohol and mental health services.

Finally, primary prevention needs to be maintained and in some areas strengthened. For example, high rates of reinfection post treatment in prisons clearly indicates the need for more harm reduction, including expanded opioid agonist therapy and consideration of prison-based needle and syringe programs. Depot buprenorphine may play a key role in this regard.

Australia has clearly laid the foundations to meet the WHO elimination targets by 2030. Although COVID-19 has been a setback in many other areas of public health, we will get to the 'other side' hopefully in 2021, and can re-engage our efforts to strive for hepatitis C elimination. ⋖

Conflicts of interest: Gregory Dore is an advisory board member for and receives honoraria from Gilead, Merck and Abbvie. He has received research grant funding and travel sponsorship from Gilead, Merck and Abbvie.

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FURTHER READING

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