

The curability of hepatitis C: Implications for a public health response

Hepatitis C (HCV) antiviral treatments can now cure 65% to 75% of infections, but existing treatments are poorly tolerated. In 3 to 5 years well-tolerated combination antivirals will cure greater than 90% of infections. However, despite many calls for coordinated prevention, care, and treatment, the approach to HCV has been ad hoc. Given the potential for near universal HCV curability and the human and societal costs of untreated HCV, a strategic and proactive public health response is required to eradicate HCV-related morbidity and mortality in a cost-effective manner.

An estimated 243 000 Canadians have chronic HCV, including 80 000 British Columbians.¹ Most infections in Canada relate to current or past injection drug use (IDU), high-risk sexual practices, receipt of unscreened blood products prior to the 1990s, or immigration from countries where HCV is endemic and unsterile injections are a common source of infection. Aboriginal people and individuals who have been incarcerated are also disproportionately affected. Of those infected with chronic HCV, 15% to 25% will develop cirrhosis, end-stage liver disease, hepatocellular carcinoma, or require a liver transplant, all of which have high human and economic costs.

HCV infections in North America affect two main groups. The first includes aging baby boomers (those born between 1945 and 1965), most of whom were infected decades ago. Most are unlikely to transmit infec-

tion because they no longer engage in high-risk activities, but they are at risk of developing cirrhosis and liver cancer. As most infections (75%) are asymptomatic, many baby boomers with HCV remain unaware that they have been infected. For baby boomers, a proactive HCV strategy should include both risk-based and one-time testing followed by engagement in care and treatment that has been proven to reduce HCV-related morbidity and mortality.

**An estimated 243 000
Canadians have chronic
HCV, including 80 000
British Columbians.**

The second major group affected by HCV includes individuals who engage in ongoing high-risk activities (i.e., injection drug use). They frequently suffer from multiple comorbid conditions including addictions, mental health, and social vulnerabilities, and are also at risk of HIV co-infection, which accelerates HCV disease progression.²⁻⁴ Stigma and discrimination adversely impact diagnosis and access to care for these patients. From a public health perspective, this group is an important priority because they represent the core transmitters of incident HCV infections. A proactive response includes testing, engagement in comprehensive care (harm reduction, addiction and mental health support), and the strategic use of “treatment as prevention” to avoid ongoing HCV transmission.³

Within the next 3 to 5 years virtually all HCV infections will be curable with markedly safer and easier-to-tolerate oral regimens. However, unless we adopt proven public health strategies to actively identify those infected, engage them in care and treatment, and provide comprehensive follow-up and support, the individual and public health benefits of these curative therapies will fail to materialize. In order to stem the HCV epidemic in BC we need to unite the voices of affected communities, health professionals, and political leaders, and transform knowledge into action.

—Mel Krajden, MD
PHSA Laboratories,

BC Centre for Disease Control
—Julio S.G. Montaner, MD
BC Centre for Excellence in
HIV/AIDS

References

1. Remis R. Modelling the incidence and prevalence of hepatitis C infection and its sequelae in Canada, 2007. Public Health Agency of Canada; 2007 Accessed 29 April 2013. www.phac-aspc.gc.ca/sti-its-surv-epi/model/pdf/model07-eng.pdf.
2. Yu A, Spinelli JJ, Cook DA, et al. Mortality among British Columbians testing for hepatitis C antibody. *BMC Public Health* 2013;13:291.
3. Martin N, Vickerman P, Grebely J, et al. HCV treatment for prevention among people who inject drugs: Modeling treatment scale-up in the age of direct-acting antivirals. *Hepatology*. 28 March 2013. doi: 10.1002/hep.26431 [Epub ahead of print].
4. Volkow ND, Montaner J. The urgency of providing comprehensive and integrated treatment for substance abusers with HIV. *Health Aff (Millwood)* 2011;30:1411-1419.

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ Editorial Board.