

FIVE THINGS TO KNOW ABOUT ...

Hepatitis C virus infection

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See also www.cmaj.ca/lookup/doi/10.1503/cmaj.150612 and www.cmaj.ca/lookup/doi/10.1503/cmaj.150652**Screening recommendations for hepatitis C vary by jurisdiction**

Hepatitis C virus (HCV) results in more lost years of life and more illness than any infectious disease in Ontario.¹ Screening individuals born between 1945 and 1965 using an anti-HCV antibody test is currently recommended in the United States.² A similar approach appears to be cost-effective in Canada and may replace the current practice of screening high-risk individuals (e.g., with a history of injection drug use, transfusion before 1992 or birth in an endemic country).³

Chronic HCV infection develops in the majority of infected patients

Hepatitis C virus affects 250 000 to 400 000 Canadians and may lead to progressive liver fibrosis.³ Chronic HCV infection develops in about 70% of patients exposed to the virus.⁵ A normal alanine transaminase level and/or a normal liver ultrasound does not rule out fibrosis. Fibrosis should be evaluated in all patients using newer noninvasive tools such as transient elastography and serum panels with biomarkers for fibrosis, or, when necessary, liver biopsy.⁶ Thrombocytopenia suggests severe fibrosis.

References

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Chronic HCV infection is often asymptomatic, making the diagnosis challenging

Most patients with chronic HCV infection are asymptomatic. Symptoms may arise once cirrhosis develops, but this takes years to occur.⁴ Patients with a positive anti-HCV antibody test require polymerase chain reaction testing for HCV RNA levels to confirm chronic infection.⁵

Chronic HCV infection is curable

New oral direct-acting antiviral agents (e.g., sofosbuvir/ledipasvir, sofosbuvir/simeprevir and paritaprevir/ombitasvir/dasabuvir) achieve high cure rates (> 90%) with 8–24 weeks of well-tolerated therapy.⁷ Direct-acting antivirals can be used alone or in combination with peginterferon plus ribavirin. The optimal regimen depends on HCV genotype, past treatment, medical comorbidities and the degree of liver fibrosis. Patients with undetectable levels of HCV RNA 12 weeks following treatment are cured of HCV.⁵ Like those who spontaneously clear the infection after exposure (about 25%), cured individuals continue to test positive for anti-HCV antibodies for life, but are not protected from reinfection.

The current threshold for starting treatment depends on the extent of liver fibrosis

Direct-acting antivirals are expensive. The extent of liver fibrosis is currently the major determinant for initiating therapy because treatment is most cost-effective in those with advanced or advancing fibrosis who are at greatest risk of future complications.⁴ Patients with extrahepatic manifestations of HCV (e.g., glomerulonephritis or cryoglobulinemic vasculitis) should be prioritized for urgent therapy.⁵

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