



# HEPATITIS C INFORMATION FOR HEALTH PROFESSIONALS

## The Hepatitis C Virus

- The hepatitis C virus (HCV) was first identified in 1989.<sup>1</sup>
- HCV affects the liver. It causes hepatitis (inflammation in the liver), which can progress to cirrhosis (extensive scarring so the liver cannot perform its normal functions).
- Most newly infected persons (60 to 70%) have no symptoms and are unaware of their infection. Nonetheless, they are still infectious to others.<sup>2</sup>
- Approximately 15 to 25% of all persons infected with HCV appear to resolve their infection.<sup>3</sup>
- Approximately 75 to 85% of all persons infected with HCV progress to chronic infection. The course of the chronic disease is generally slow, without symptoms for two or more decades after infection.<sup>4</sup>
- Approximately 3 to 20% of infected persons will develop cirrhosis of the liver after 20 years of infection.<sup>2</sup>
- At present, there is no vaccine available.
- There are at least six types, and more than 90 subtypes of HCV.<sup>5,6</sup>
- The current recommended treatment for HCV infection is a combination of the drugs interferon and ribavirin.
- Presently, treatment is not effective in all infected people.
- It is possible to become re-infected with HCV.

## Rates of Hepatitis C

- It is estimated that approximately 240,000 persons in Canada are infected with HCV, with rates higher among males than females.<sup>4,7</sup>

- To date, reported rates of HCV infection are very low in infants and children, gradually climbing to a peak rate among those 30-39 years of age and declining thereafter.<sup>4</sup>
- It is estimated that approximately 5,000 new cases of HCV infection may occur in Canada each year, at least two-thirds of which may be related to sharing injection drug use equipment.<sup>4</sup>

## Transmission of Hepatitis C

- HCV is primarily transmitted through exposure to the blood of an HCV-infected person.
- HCV is 10 to 15 times more likely than HIV to be transmitted by infected blood.<sup>8</sup>

## At Greatest Risk

- Sharing needles, syringes, swabs, filters, spoons, tourniquets and water used for injecting drugs represents the highest risk behaviour.<sup>6</sup>

## At Lower Risk

- Sexual transmission of HCV is considered minimal in long-time, monogamous relationships.<sup>3,9</sup> Having multiple sexual partners may increase the risk of infection.<sup>10</sup>
- Infection of infants from an infected mother occurs in about 5 to 10% of cases.<sup>2</sup>
- Evidence shows that HCV can be transmitted through tattooing.<sup>11</sup>
- It has been suggested that HCV may be transmitted through body piercing carried out in unhygienic circumstances.<sup>12</sup>
- There is potential risk of infection through the sharing of household articles that may be contaminated with blood (e.g., toothbrushes, razors).<sup>11</sup>

- Transfusion accounts for approximately 10% of existing cases. However, the risk of infection through blood transfusion has been substantially reduced by the introduction of universal testing of blood donations for HCV in May 1990.<sup>2</sup>
- The current risk of HCV transmission via blood transfusion is estimated to be less than 1 in 500,000 units of blood donated.<sup>13</sup>

## Injection Drug Use

- It is estimated that two-thirds of new HCV infections in Canada each year are related to sharing needles, syringes, swabs, filters, spoons, tourniquets and water related to injection drug use.<sup>2,11</sup>
- It has been estimated that there are up to 125,000 people in Canada who inject drugs.<sup>14</sup>
- People involved in injection drug use are geographically and socially diverse.<sup>14</sup>
- Currently, a young, single person at the low end of the economic scale is characteristic of those at greater risk of sharing needles and other drug equipment.<sup>14</sup>
- HCV spreads quickly. Consistently, research shows high rates of HCV even among short-term users of injection drugs who share drug-injecting equipment.<sup>15,16</sup>
- While not identified until 1989, HCV has been around for a very long time. People who have ever injected drugs (even once) and shared drug-injecting equipment are at risk of HCV infection.
- Worldwide estimates of HCV infection among drug-injecting populations range from 50 to 100%. People who inject drugs are central to the persistence of HCV in Canada.<sup>8</sup>

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- A 1996 study of a cohort of injection drug users in Vancouver, British Columbia, showed that 88% were infected with HCV. The results also revealed high levels of needle sharing, with 40% of participants having lent used needles and 40% having borrowed used needles.<sup>17</sup>
- The use of cocaine by injection poses particular health risks. Cocaine use often involves up to 20 injections per day. This increases the likelihood that drug equipment will be shared.<sup>18</sup>
- There are various injection practices that increase the risk of transmission. For example, in a practice called 'front loading' or 'back loading' the drug is mixed in one syringe and then divided by squirting some of the solution into one or more syringes. Although the needle is not shared, HCV can be transmitted if the syringe used for mixing has been previously contaminated.<sup>19</sup>
- Limited research suggests that people with a history of intra nasal or inhaled drug use may be at risk for HCV. Because users of cocaine often have nasal erosions, ulcers and bleeding, sharing of cocaine straws can transmit HCV. Dehydrated and cracked lips, another common side effect of injection drug use, makes pipe sharing a potential risk.<sup>3</sup>
- People living in Canada who inject drugs are stigmatized and often rejected by society. This has significant implications for efforts to reach this population.<sup>20</sup>
- Prisoners have high rates of HCV infection (28 to 40%).<sup>21</sup>
- Street-involved youth are at high risk. One study conducted in Montreal in 1995/96 found that 12.6% were infected with HCV.<sup>22</sup>
- There is evidence to suggest that females are being initiated into injection drug use at a younger age than males. Women are often less able to resist pressure by their male partners to share needles.<sup>14</sup>
- Although there are little data currently available, Aboriginal people in Canada are over-represented in groups at risk for HCV such as inner city injection drug-using populations and prisoners.<sup>14</sup>

## Prevention Efforts

- Discouraging individuals from trying injection drug use is critical to preventing the spread of HCV infection.
- Using peer networks, where those involved with injection drug use provide education and intervention to others, has produced positive outcomes.<sup>23</sup>
- Harm reduction strategies, such as needle exchange programs and methadone maintenance programs, can reach a population that is difficult to access through more traditional channels. Such contact allows for the provision of education regarding the effects of harmful drug practices, and provides an opportunity to link individuals to other social and health services.
- Strategies directed at people who inject drugs need to use a comprehensive prevention and harm reduction approach that gives attention to the psycho-social factors associated with injection drug

use, the environment in which unsafe behaviour occurs, and the provision of basic life necessities.

## For Those at Risk for HCV

Individuals should be advised to:

- Never share needles, syringes, swabs, filters, spoons, tourniquets, water, straws used for snorting drugs, pipes and other equipment related to drug use. Simple cleaning/flushing of equipment with bleach may not kill the hepatitis C virus.
- Exchange all used needles.
- Never share toothbrushes, razors or other personal care articles as they may have blood on them.
- Consider the health risks in tattooing, body piercing or other personal services that involve breaking the skin where recommended guidelines may not be followed.
- Encourage testing of high-risk persons.

## For Those With Hepatitis C

- Advise against the use of alcohol.
- There are treatments available. Timely initiation of medication is advised.

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## Determinants of Health

High-risk drug behaviours occur more frequently in certain groups, due to complex social, economic and cultural factors.

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