BC Centre for Disease Control
An agency of the Provincial Health Services Authority

# Hepatitis C Testing Guide

## Quick Reference Guide for Health Care Providers

August 2016

**Anti-HCV (HCV Antibody)**
- Results in 3 days
- Positive 5-10 weeks after exposure

**Anti-HCV Non-reactive**

**No further testing if immune competent**
- Repeat test annually if ongoing risk factors
- False negatives may occur in the presence of major immunosuppression*. Order HCV RNA where appropriate.

**Anti-HCV Equivocal**

**Order HCV RNA**
- Equivocal results are usually a false positive (very low occurrence)
- Order HCV RNA to confirm active infection

**Anti-HCV Reactive**

**Hep A & B**
Immune status testing is automatically performed. Offer appropriate vaccines.

**Order HCV RNA and Genotype Ω**
- Results in 5-10 days
- Positive 1-3 weeks after exposure

**Risk Factors**

**High Risk**
- Injection drug use (IDU) past or present
- Medical care received in countries where routine infection control practices are not followed and blood supply is not tested
- In Canada, increased risk if:
  - Blood-derived coagulation products before July 1988
  - Organ or tissue transplant before 1990
  - Blood transfusion or blood product before May 1992
- Incarceration (needle sharing and unsterile tattooing)

**Moderate-Low Risk**
- Non-IDU (e.g. snorting, smoking), past or present
- Riskier sexual practices (e.g. multiple partners, anal sex or rough sex causing mucosal tearing, substance use during sex)
- Tattooing, body piercing or acupuncture due to unsterile practices

**Low Risk**
- Unprotected sexual activity in long-term, monogamous relationships with a HCV positive partner
- Vertical transmission from mother to infant
- Sharing personal care items (e.g. razors, nail clippers)
- Workplace exposure (e.g. needle sticks)

**No HCV RNA detected**

**No evidence of active infection**
- Spontaneously cleared or resolved as a result of treatment
- Repeat HCV RNA annually if ongoing risk factors, as reinfection can occur

**HCV RNA detected**

**Indicates active infection**

To establish chronic infection, repeat HCV RNA in 6 months (25% of infections spontaneously clear)

If newly acquired infection or chronic infection is established, offer resources to engage into care:
- Discuss prevention of transmission
- Discuss stigma concerns
- Recommend testing for potential contacts
- Explore treatment options
- Assess liver damage and treatment urgency by primary care provider (e.g. liver enzymes, ultrasound, FIB-4ϕ, APRIϕ, Fibroscan®)

* HIV+ (CD4+ < 200 cells/mm$^3$), long-term use of immunosuppressants, chronic kidney disease and agammaglobulinemia

Ω BCCDC Public Health Laboratory can do genotype testing on 'HCV RNA detected' specimens only. If requested at the same time as the HCV RNA, the genotype will be done and a new EDTA tube is **NOT** required

ϕ For an online calculator, see http://www.hepatitisc.uw.edu/page/clinical-calculators/apri

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### Background

Injection drug use is the major source of new infections. As people who inject drugs also have a higher prevalence of HIV, HBV, mental illness and social and material deprivation, prevention strategies need to be multi-factorial.

Prevalent infections are commonly seen in people born in 1945-64, immigrants from endemic countries (high prevalence areas include regions of Central and East Asia, and North Africa/Middle East*****) and people who have used illicit drugs in the past.

There are 7 genotypes of HCV, of which 1, 2 and 3 are the most common in North America and BC. Treatment previously consisted of 24 to 48 weeks of ribavirin and injectable pegylated interferon, and cure rates ranged from 40 to 80%. Newer direct acting antiviral agents are well tolerated can achieve cure rates of ~ 95% within 12 weeks of treatment.

### Key education points to provide with HCV testing

#### Engage into care

- Ensure immunizations are up to date (see special populations and routine adults schedules)
- Assess and counsel about safer alcohol use
- Assess for substance use and need for counselling, harm reduction services and opioid substitution therapy.
- Offer STI screening
- Clinical supports and general healthy liver education (e.g. diet and acetaminophen use)

### Key education points to provide with active infection

#### Transmission prevention

- Do not share personal care items
- Do not donate blood, semen, breast milk or body organs/tissues
- Dispose items and sharps with blood in separate bags or containers
- Keep all open cuts and sores covered
- Blood spills can be cleaned with a solution of 1 part bleach to 9 parts water. Apply and let sit for 10 minutes before rinsing.
- There is no immunization and no post-exposure prophylaxis for HCV

* For estimated rates by region, see http://dx.doi.org/10.1002/hep.26141

### Clinical Description

**Newly acquired HCV infection:** symptoms are usually absent, but can include a wide spectrum of illness, including jaundice.

**Chronic HCV infection:** symptoms are absent. Over decades, 20% will develop cirrhosis and 1-5% will develop hepatocellular carcinoma. Chronic HCV is a major cause of liver transplantation.

### Laboratory

**HCV Antibody:** produced when exposed to HCV and usually remains present for life. A reactive anti-HCV test does not distinguish between resolved or current HCV infection. Does **NOT** need to be repeated once result is reported as reactive.

**HCV RNA:** confirms current active infection. Used to predict and monitor treatment response, but does not correlate with disease progression.

**HCV Genotype:** determines appropriate HCV treatment and counselling.

### Resources

BCCDC virology requisition and program information
http://www.bccdc.ca/health-professionals/professional-resources/laboratory-services

Acute HCV case report form
http://www.bccdc.ca/health-professionals/professional-resources/surveillance-forms

**For Health Care Providers:**

Canadian Association for the Study of the Liver – 2015 Hepatitis C Guidelines
http://www.hepatology.ca/

University of Washington – Hepatitis C Online
http://www.hepatitisc.uw.edu/

**For clients and Health Care Providers:**

BCCDC Hepatitis Prevention & Care
http://www.bccdc.ca/our-services/programs/hepatitis-prevention-care

HealthLinkBC Files
http://www.healthlinkbc.ca/servicesresources/healthlinkbcfiles/

Hepatitis Education Canada
http://hepatitiseducation.med.ubc.ca/resources/

Hepatitis Education Canada
Programme canadien d'éducation sur l'hépatite

**Questions?**

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