Acute hepatitis C infection suspected – recent exposure to potentially HCV infected blood

**WEB RESOURCES**

Patients:
Canadian Liver Foundation: www.liver.ca
Health Canada: www.hc-sc.gc.ca/yth/wellne/suivre-maladies/hepc_e.html
Public Health Agency of Canada: www.phac-aspc.gc.ca/hepc

Health Care Providers:
Canadian Association for the Study of the Liver: www.hepatology.ca

**WHO SHOULD BE SCREENED FOR THE HEPATITIS C VIRUS (HCV)?**

(1) Anyone with RISK BEHAVIOURS/POTENTIAL EXPOSURES TO HCV

**HIGH RISK**

- Injection drug use (IDU)
  - injection in the past or present (e.g., due to lack of universal precautions and medical/dental practices)
  - drug and/or alcohol dependency

- Sharing of shared/contaminated drug preparation/injection materials (e.g., needles, syringes, pipes, straws)

- Sharing of tattooing or other ceremonial body piercings (e.g., razors, scissors, nail clippers, toothbrush)

- Hemodialysis

**INTERMEDIATE RISK**

- Hemodialysis
- Infant born to mother with HCV infection

**OTHER RISKS SOMEWHAT ASSOCIATED WITH HCV EXPOSURE**

- Sharing sharp instruments/personal hygiene materials with HCV+ persons (e.g., razors, scissors, nail clippers, toothbrush)
- Tattooing, body piercing, scarification, female genital mutilation or other ceremonial rituals
  - Due to shared/contaminated materials
- Intranasal (nebulizer) & inhalation drug use
  - Due to shared/contaminated drug use materials (e.g., pipes, straws)

**Risk factors for chronic HCV infection**

- **Acute HCV**
  - Hepatitis C virus (HCV) infection is more common if acute HCV infection is not cleared.

- **High-risk sexual acquisitions**
  - Unprotected sex with a person with chronic HCV infection (e.g., HCV+ partner)
  - Shared/contaminated drug preparation/injection materials (e.g., needles, syringes, pipes, straws)
  - Reduced or no safe sex practices

- **Physical trauma**
  - Physical trauma (e.g., fighting where blood is present)

- **Shared/contaminated materials**
  - Shared/contaminated tattooing materials
  - Shared/contaminated drug preparation/injection materials (e.g., needles, syringes, pipes, straws)

- **Greater-risk sexual behaviour**
  - Higher risk sexual behavior (e.g., anal intercourse, receptive anal intercourse)

- **High-risk cases sometime**
  - Tobacco use, alcohol use (e.g., smoking, drinking, heavy drug use)

- **Abnormal liver biochemistry**
  - Elevated liver enzymes (ALT, AST) (+jaundice)

- **Drug and/or alcohol dependency (past or present)**

- **Blood diseases requiring multiple transfusions of blood products**

- **Higher-risk sexual behaviour**
  - Unprotected sex with HCV+ partner (non-monogamous relationship)

- **Unconfirmed**
  - Laboratory confirmed, and is not known to have chronic HCV infection.

- **Unsuspected**
  - This will become a case if a laboratory positive test (HCV-RNA) is confirmed.

- **Hepatitis C**
  - A review for primary care physicians (Wang, L., 2006) 2006

**A study to characterize the epidemiology of hepatitis C infection in Canada, 2002 (Ritten RD, 2006) www.phac-aspc.gc.ca/hepc

**Funding for the production of this publication was provided by the Public Health Agency of Canada.**

**Acute hepatitis C infection**

- No specific symptoms usually noticed
- Symptoms may appear within 4 weeks of exposure
- More common if acute HCV infection is not cleared
- Due to lack of universal precautions and medical/dental practices

**Laboratory Tests for Detecting acute HCV infection**

- **Antibodies to hepatitis C virus (Anti-HCV)**
  - First test used to identify acute HCV infection
  - Most commonly used test

- **HCV-RNA**
  - A new test
  - More sensitive

- **HCV-RNA qualitative PCR**
  - First test to identify acute HCV infection

- **HCV-RNA negative**
  - Negative test
  - Noted 4 weeks post exposure

- **HCV-RNA positive**
  - Positive test
  - Noted 4 weeks post exposure

**HCV-RNA Qualitative PCR**

- First test to detect acute hepatitis C

**HIV**

- HIV infection
- Diagnosis of acute hepatitis C infection is made on the basis of a positive test for hepatitis C virus (HCV) RNA

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### Screening for HCV Exposure & Determining Chronic Hepatitis C Infection

**Has there been recent exposure to potentially HCV infected blood?**

**Yes** — see Module 7 regarding acute hepatitis C infection  
**No** — follow algorithm below

#### Algorithm

1. **Complete physical exam**
2. **Drug history**
3. **Hepatitis A**
4. **HIV**
5. **HCV”r-na negative**
6. **Additional tests**
   - Serum levels of transaminases
   - HCV-RNA
   - Hepatitis B surface antigen
   - ALT, AST

#### Special considerations

- **Drug use**
- **Adverse effects**
- **Immunocompromised patients**

### Evaluation of the HCV-infected Adult

**All patients with chronic hepatitis C (HCV-RNA+) should be referred to an experienced colleague** for further assessment & possible treatment

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### Counseling Adults with Chronic HCV Infection

Advice to reduce liver damage (fibrosis progression)

- Maintain a healthy weight (ideal BMI 20-25, ideal WC <80cm, <102cm)
- Encourage H&K & B hepatitis prevention
- Consider therapy for hepatitis C

Advice to reduce the risks of transmission or re-infection

- Sexual activity is safe unless it involves trauma or higher risk sexual behaviors (see Module 1)
- Nonmonogamous relationships and for new sexual partners — use condoms/dental dams for oral sex until potential HCV transmission as well as the transmission of HIV
- There is currently no proven method to reduce the risk of vertical transmission (infants or children)
- HCV+ mother cannot breastfeed unless nipples are cracked or bleeding. Can resume breastfeeding when nipples are healed

Advice regarding medications or cirrhosis

- Avoid benzodiazepines, amitriptyline, and narcotics including codeine
- No ASA or NSAID if possible
- Keep your health care provider informed of any complementary/alternative therapies or supplements taken

Living well with hepatitis C

- Be physically active
- Reduce stress and maintain an active support network

### Treatment

- **Therapy for hepatitis C can cure HCV infection in up to 90% of cases (40-90%)**
- **Efficacy depends on the HCV genotype**. Please consult the following online genotypes in the HCV genotyping
- **Genotypes 5 & 6 not yet known**
- **Treatment duration also depends on HCV genotype or HIV status. 24 to 72 weeks**
- **For those opts not to have treatment; regular follow-up should be encouraged to monitor disease progression and desire for treatment**

Risk factors which may contribute to liver damage (fibrosis progression)

- **Older age**
- **Alcohol intake > 50g/day (3 drinks)**
- **Male sex**

**Note**: chronic HCV-RNA is rarely detected in acute cases of hepatitis C.

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2. **Start here**

- **Anticy-HCV**
- **ALT, AST**
- **Consider HIV antibody**
- **Check HCV-RNA**
- **Start**

3. **EVALUATE THE HCV INFECTED ADULT**

- Evaluate liver function — measure T-Bili, Albumin, INR
- Note labs that support suggestion of liver disease
- Pusible cirrhosis — screening liver ultrasound for HCC. If suspicion rises, refer urgently to specialist
- HIV positive — refer to experienced colleague* with expertise in HIV HCV co-infection
- Extrahepatic HCV** — HCV skin, oral mucosal, nail, follow. NHL — needs to see experienced colleague** urgently
- Pregnant women with chronic hepatitis C infection — no change to routine obstetric care unless cirrhosis
- Pregnant women with cirrhosis require referral to an expert in high risk obstetric care
- HCV positive women can breastfeed as long as nipples are not cracked/bleeding. Can resume breastfeeding when nipples healed
- Children & Adolescents — no urgent care required. Test results of HCV-RNA positive mothers at 1 year using HCV-RNA test. Note: Anti-HCV may be positive if infant is tested before 1 year and children rarely develop end-stage liver disease

4. **EDUCATION FOR CHRONIC HCV INFECTED ADULTS**

- Natural history of chronic HCV infection
- 1.00 ACUTE HCV INFECTIONS
- 20% recovery
- 80% persistent infections

- 20 patients

- 80 patients

- 30% severe progressive hepatitis**
- 40% severe progressive***
- 30% chronic, renaoproggressive**
- 32 patients

- 34 patients

- **Note**: acute HCV-RNA at 6 weeks after acute hepatitis C infection.

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5. **SCREENING FOR HCV EXPOSURE & DETERMINING CHRONIC HEPATITIS C INFECTION**

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