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

**ORDER THESE TESTS AT FIRST VISIT**

**Acute-HCV (To ensure no previously infected. This test becomes positive at 2-12 weeks post exposure)**

- **HCV-RNA (qualitative PCR)**
  - First test: 2-4 weeks post exposure
  - Repeat HCV-RNA at 6-12 weeks post infection
- **Anti-HCV**
  - Positive for 2-3 months post exposure
  - Repeat HCV-RNA at 12-24 weeks post infection
- **Anti-HAV**
  - IgM: acute infection
  - IgG: past infection
  - ALT/AST: ALT/AST rise suggests acute hepatitis A

**DIAGNOSIS OF ACUTE HEPATITIS C**

**HCV-RNA**

- **Positive:** Treat immediate with anti-viral therapy
- **Negative:** Repeat HCV-RNA in 12 weeks

**Anti-HCV**

- **Positive:**
  - HBsAg: Hepatitis B infection
  - Patient may have hepatitis C and B
  - Refer to Hepatitis B section
- **Negative:**
  - HBsAg negative: Referral to Hepatitis B section
  - HBsAg positive: Refer to Hepatitis B section

**Anti-HAV**

- **Positive:** Refer to Hepatitis A section
- **Negative:** Refer to Hepatitis A section

**Abnormal liver biochemistry (e.g., ALT)**

- Treatment with anti-viral therapy

**Blood transfusion, blood products, organ transplant before 1985 in Canada**

- Immediate treatment

**Unconfmed: laboratory confirmed, and is not known to have chronic hepatitis C.**

**Hepatitis C: a review for primary care physicians (Wong, Lee, 2006):**


**Hepatitis C virus:**

- Antigen: HCV antigen
- Antibody: anti-HCV
- Anti-HCV negative: Referral to Hepatitis C section
- Anti-HCV positive: Treatment with anti-viral therapy

**Hepatitis C virus (HCV)**

- **Prevention of transmission:**
  - Use disposable hypodermic needles
  - Use disposable non-sterile items

**Hepatitis C virus (HCV) infection**

- **Pre-existing chronic Hepatitis C:**
  - Homelessness, residency in group homes or shelters
  - Higher-risk sexual behaviour

- **Sharing sharp instruments/personal hygiene materials**
  - Due to shared/container materials
  - Intranasal (snorting) & injection drug use
  - Due to shared/container materials

- **Abnormal liver biochemistry (e.g., ALT)**
  - Treatment with anti-viral therapy

- **Drug use (past or present) (e.g., intravenous drug use)**
  - Referral to Drug Use section

- **Blood diseases requiring multiple transfusions of blood products**
  - Due to shared/container materials

- **Porphyria cutanea tarda**
  - Due to shared/container materials

- **Non-Hodgkin’s lymphoma**
  - Due to shared/container materials

- **Higher-risk sexual behaviour**
  - Due to shared/container materials

- **Multi-dose vials, surgery, transfusion, etc.)**
  - Using contaminated equipment (e.g., childhood immunizations, injections, multi-dose vials, surgery, transfusion, etc.)

- **Hemodialysis**
  - Due to shared/container materials

- **Unconfirmed:**
  - Laboratory confirmed, and is not known to have chronic hepatitis C.
  -因实验室确认，但不知有否慢性丙型肝炎。

**Risk factors for hepatitis C infection**

- **Sharing sharp instruments/personal hygiene materials**
  - Due to shared/container materials
  - Intranasal (snorting) & injection drug use
  - Due to shared/container materials

- **Abnormal liver biochemistry (e.g., ALT)**
  - Treatment with anti-viral therapy

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Screening for HCV Exposure & Determining Chronic Hepatitis C Infection

Has there been recent exposure to potentially HCV infected blood?

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

1. Complete physical exam
2. Evaluate for other liver diseases
   • Dull pain in upper right abdomen
   • Yellowing of skin or eyes
   • Enlarged liver or spleen
   • Lightening of skin color
   • Itchy skin
3. Hemochromatosis (check Fe, TIBC).
4. Check HCV-RNA
5. Assess chronicity of liver disease & HCV RNA
6. Further evaluation of chronic infections
   a. Risk factor interview (see below)
   b. Review of laboratory test results
   c. History of infection (lost vor inoculation) — "I thought you had HIV"
   d. Targeted physical exam for signs of fibrosis/cirrhosis
   e. ALT, AST, TBL, GGT, Alk Phos, albumin
   f. HCV genotype
3. Consider:
   a. Hepatocellular carcinoma (US surveillance –シェール_hepatoma)
   b. Annual influenza vaccination
   c. Use of prescription medications

Special considerations:

- Evaluate liver function — measure T-Bil, Albin, INR
- Laboratory tests may help in determining fibrosis progression
- Prolonged cirrhosis — screening liver ultrasound for HCC
- If suspicion mass noted, refer urgently to specialist
- HIV positive
   - refer to experienced colleague
- Extrahepatic HCV — check skin symptoms, nail changes, dry eyes
4. Evaluate for chronic HCV infection
5. Refer to experienced colleague

2. Evaluate for other liver diseases

■ Older age & history of diabetes
■ Alcohol intake > 50 g/day
■ Longer duration of infection
■ Male sex
■ 40% variable progression

There is currently no proven method to reduce the risk of HCV infection.

4. Evaluate HCV infected adult

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

■ Prolonged cirrhosis — screening liver ultrasound for HCC
■ If suspicion mass noted, refer urgently to specialist
■ HIV positive
   - refer to experienced colleague
■ Extrahepatic HCV — check skin symptoms, nail changes, dry eyes

Advice to reduce liver damage (fibrosis progression)

- Maintain a healthy weight
- Avoid alcohol
- Avoid smoking
- Consider therapy for hepatitis C

Advice to reduce the risks of transmission or re-infection

- Sexually active, if below 20 years or untested.
- Avoid close contact with body piercing

Advice regarding medications in cirrhosis

■ Antimicrobial agents (e.g., Tenofovir, entecavir, tenofovir) are available to use in patients with cirrhosis
■ 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 for hepatitis C can cure HCV infection in up to 90% of cases (40-90%)

Efficacy depends on the HCV genotype.

- Treatment duration also depends on HCV genotype or HIV status. 24 to 72 weeks
- For those who opt not to have treatment, regular follow-up should be encouraged to monitor disease progression and desire for treatment

Side effects from hepatitis C medications are common. Before starting hepatitis C therapy, consider and discuss the treatment plan with a specialist.

Remember: Not everybody needs or wants treatment. Many people live well with hepatitis C. As symptoms do not correlate with disease severity, laboratory tests are required to assess the degree of hepatic fibrosis.