

# **Canadian Association of Hepatology Nurses Viral Hepatitis Competencies**

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# Canadian Association of Hepatology Nurses Viral Hepatitis Competencies

The Canadian Association of Hepatology Nurses (CAHN) approved the Hepatology Nursing Standards in February 2007. The Standards provide a comprehensive framework for the evaluation of professional, ethical nursing practice in hepatology. Subsequently, a CAHN working group began to develop competency documents that describe core competencies specific to particular liver diseases/conditions. This Viral Hepatitis Competencies document is the first to be created. The viral hepatitis competencies pertain to adults. These competency statements **do not** include specifics for pediatrics or transplantation.

## Purpose

The Canadian Association of Hepatology Nurses Viral Hepatitis Competencies document provides a mechanism for nurses to examine their practice, determine their learning needs and ultimately improve the quality of viral hepatitis care.

## Introduction

The CAHN Viral Hepatitis Competencies document describes a full range of viral hepatitis nursing competencies without identifying educational preparation or specific experience needed for any of the competencies. The document articulates expectations that the regulatory bodies have for Registered Nurses involved in specialty areas of practice. This document can be used by Registered Nurses for ongoing self-assessments and by nurses preparing to transition to viral hepatitis practice, education, administration and/or research. The competencies are not intended to be prescriptive, rather they are meant to assist Registered Nurses identify learning needs appropriate for their particular practice context.

The competencies are described within four sections: fundamental knowledge, nursing assessment, interventions and evaluation. Each section contains several competency statements with accompanying knowledge expectations. The nursing assessment section is framed within the twelve determinants of health.

Embedded in the competencies are the assumptions that nurses' advocate not only at the individual but also at the policy or systems level and that nurses engage in collaborative practice.

An Appendix of definitions and terms is included for clarity.

As the document reflects current knowledge CAHN will review and revise it at regular intervals.

# Viral Hepatitis Competency Statements

The competencies are presented within four sections: fundamental knowledge, nursing assessment, interventions and evaluation. Each section contains competency statements followed by bullet points that describe the specific knowledge content related to that competency.

## Section 1: Fundamental Knowledge Competencies

### 1.1 Explain the epidemiology of viral hepatitis (A, B, C, D and E) liver disease

- National and local prevalence and incidence, where available
- Routes of transmission and risk factors
- Demographic characteristics (i.e., immigration, cultural, ethnicity, male/female and age)
- Links with socio-economic factors
- Available vaccines
- The difference in course and development of acute versus chronic infection

### 1.2 Describe the normal anatomy and physiology of the liver

- Normal liver anatomy and physiology
  - Surface anatomy (e.g., liver lobes)
  - Histology (e.g., liver lobule, portal triad, hepatocytes)
  - Connection to systemic circulation and portal circulation
  - Intrahepatic and extrahepatic biliary system
  - Normal liver functions (e.g., vascular, metabolic and excretory functions)

### 1.3 Describe the pathophysiology and natural history of viral hepatitis

- The effects of inflammation on liver histology
- How fibrosis and cirrhosis impair normal liver function
- The relationship between other diseases of the liver and viral hepatitis (e.g., fatty liver disease, genetic liver diseases)
- Symptoms commonly reported (e.g., fatigue, skin conditions, depression)

## Section 2: Nursing Assessment Competencies

### 2.1 Describe the importance of income and social status in viral hepatitis prevention, care and treatment

- Describe the role of secure income (e.g., employed, on social assistance, disability or retired) on behavior
- Explain how barriers such as unsafe shelter, lack of nutrition and lack of affordable transportation impact client health

- Describe the different types of social assistance available to Canadians at various life stages (e.g., social and income assistance, disability, other forms of financial support programs)
- Identify effective strategies to ensure access to services

## **2.2 Explain the impact of stigma and discrimination**

- Describe the different ways stigma and discrimination are experienced by those affected by viral hepatitis
- Describe how stigma and discrimination can affect health behavior
- Explain how discrimination can violate human rights
- Describe the importance of confidentiality as it pertains to viral hepatitis diagnosis and access to care
- Recognize and evaluate how personal values effect respectful relationships
- Be aware that health care professionals are most frequently identified as those who stigmatize and discriminate

## **2.3 Explain the impact of the client's level of education and literacy**

- Explain methods to assess the client's understanding of information
- Utilize principles of adult learning
  - Utilize language that is appropriate to the client's education, literacy level and ethno-cultural context
  - Describe the importance of language proficiency (i.e., expression/comprehension and reading/writing) in client interactions
- Facilitate client access to evidence based information and accept use (e.g., peer support groups, internet)

## **2.4 Explain the impact of employment/working conditions**

- Explain the rights of the individual around disclosure (e.g., non disclosure at work) and to have their confidentiality respected
  - Knowledge of the impact of disclosure of a viral hepatitis diagnosis on employment/career choices
  - Understand profession regulatory and legal requirements regarding disclosure of viral hepatitis diagnosis
- Promote safe work environments, free from stigma and discrimination, that respect human rights and confidentiality
- Explain transmission prevention and exposure management

## **2.5 Understand the influence of social environments**

- Describe the importance and impact of social support (e.g., community groups, online support groups )
- Explain how to access the available community resources
- Describe how social media may positively or negatively impact personal health decisions

## **2.6 Understand the importance of physical environments**

- Recognize how living in an unsafe community (e.g., high levels of crime, illicit drug use) may affect behavior
- Describe how safe and affordable housing is fundamental to health
- Explain the contribution of the physical environment (i.e., air/ground/water quality, chemical/biological exposure) to co-morbidity

## **2.7 Understand the importance of personal health practices and coping skills**

- Describe the personal health practices and coping skills that promote a healthy liver (e.g., healthy eating, physical activity, limited alcohol use)
- Describe how personal health choices can be affected by socio-economic environments (e.g., poverty affecting self care, advocacy, and coping mechanisms)
- Describe how personal health practices can be affected by social media (e.g., YouTube, Facebook, Twitter)
- Explain how self-esteem, self-worth and resilience can affect health practices

## **2.8 Explain the importance of healthy child development**

- Explain how positive stimulation early in life improves learning, behavior and health into adulthood
- Describe significant stressors that can adversely affect childhood development (e.g., physical, emotional, sexual neglect/abuse, exposure to substance misuse, vertical/horizontal transmission)
- Explain strategies to support a client who has experienced significant life stressors (e.g., setting boundaries, appropriate goal setting)
- Recognize the barriers that can exist in the transition from adolescent to adult care
- Recognize risk factors that can influence the progression of liver disease (e.g., childhood obesity, substance use)

## **2.9 Understand the role of the virus and host biology/genetics**

- Explain the natural history of viral hepatitis
- Describe factors that affect viral susceptibility and viral clearance
- Describe factors that affect disease progression (i.e., modifiable and non modifiable)
- Describe the questions in a nursing history (e.g., place of birth, symptoms) and physical assessment (e.g., tattoos, spider nevi) that contribute to a nursing diagnosis of viral hepatitis
- Describe the serological tests used to diagnose a viral hepatitis infection
- Describe the extra hepatic manifestations that can occur with viral hepatitis (e.g., cryoglobulinemia)
- Identify significant viral hepatitis co-morbidities (i.e., metabolic syndrome, co-infections and mental health/addictions)
- Describe host factors that lead to viral resistance (e.g., Q80K, IL28B, L180M)

## **2.10 Describe the impact of health services on viral hepatitis**

- Describe current health systems coverage for viral hepatitis care (e.g., refugees, new immigrants, First Nations, provincial/territorial health coverage)
- Describe nursing actions that can improve health services such as:
  - Describe client self advocacy (e.g., navigation of health and social system)
  - Explain how to advocate with clients
  - Explain nurses' role in advocating for health system change (e.g., improved access for care and medications, participation in advocacy organizations such as Canadian Association of Hepatology Nurses)

## **2.11 Understand the role of gender**

- Describe gender considerations (e.g., younger females are at increasing risk for Hep C acquisition (PHAC, 2009))
- Describe differences in gender on viral hepatitis disease progression and management:
  - Treatment response
  - Increased cancer risk for men
  - The effect of menopause and pregnancy on viral hepatitis management
  - Special circumstances for interpreting lab results (e.g., transgender person taking hormones)

## **2.12 Understand the impact of culture**

Describe cultural implications related to viral hepatitis (e.g., race, language, belief system)

- Explain the role of cultural safety in nurse client relationships (i.e., avoid actions that diminish, demean, or disempower the cultural identity and well-being of an individual)

## **Section 3a: Intervention Competencies (Client Focused)**

### **3a.1: Describe health promotion activities associated with liver health**

- Explain the importance of healthy lifestyle activities such as:
  - Maintaining an ideal body weight through healthy diet and exercise (e.g., Canadian Liver Foundation LIVERight program)
  - Avoiding substance misuse (e.g., alcohol, tobacco, Rx medications, illicit substances)
  - Safer sex
  - Not sharing items of personal use (e.g. razors, nail clippers, needles, toothbrushes)
  - Immunizations indicated for hepatitis prevention and immunizations for individuals with chronic viral hepatitis

### **3a.2 Understand harm reduction philosophy, strategies and their effectiveness**

- Explain harm reduction philosophy

- Describe harm reduction approaches and their effectiveness, examples include:
  - Alter eating habits to reduce weight
  - Stop or reduce tobacco and alcohol use
  - Limit illicit substance use or use substitution therapies (e.g., methadone)
  - Do not share drug paraphernalia (i.e. the 'works')

### **3a.3 Understand the vaccines that are available to those with viral hepatitis**

- Describe which types of viral hepatitis are vaccine preventable
- Explain how to access national and provincial immunization guidelines
- Describe professional requirements to safely administer vaccinations

### **3a.4 Understand complementary and alternative therapies**

- Describe complementary and alternative therapies commonly used in viral hepatitis
  - Symptom management (e.g., sleep hygiene, depression, anxiety)
  - Counseling
  - Teaching
  - Complimentary/alternative therapies (e.g., herbal medications, massage, therapeutic touch, marijuana)
  - Nutrition-based therapies (e.g., vitamin D )

### **3a.5 Understand the tests used to monitor clients during the acute phase for each hepatitis virus**

- Describe the viral hepatitis serology of an acute infection (e.g., anti HBc IgM)
- Explain the reason for changes (deviation from the norm) that commonly occur in other serology (i.e., liver enzymes and liver function tests)
- Describe signs and symptoms
  - Clinical presentation (e.g., jaundice, hepatic encephalopathy, impaired clotting, ascites )
  - Laboratory results (e.g., INR, Creatinine, eGFR, Lytes, AST, ALT, ALP, total bilirubin, albumin, platelets)
  - Diagnostic test results (e.g., liver biopsy or liver ultrasound)

### **3a.6 Understand available anti-viral therapies used to treat adult clients with chronic hepatitis B, C and or D infection (pre and post liver transplant)**

#### Hepatitis B

- Describe the current anti-viral therapy(s) and the process to access treatment for chronic hepatitis B infection
- Explain the principles of antiviral resistance in relation to chronic hepatitis B therapy
- Describe contraindication/s to initiating hepatitis B therapy
- Explain side-effects and management of hepatitis B therapy
- Describe future treatments in development

#### Hepatitis B + Hepatitis D (delta)

- Describe the current anti-viral therapy(s) and the process to access treatment for chronic hepatitis B infection
- Explain the principles of antiviral resistance in relation to chronic hepatitis B therapy
- Describe medical contraindication/s to initiating hepatitis B therapy
- Explain side-effects and management of hepatitis B therapy
- Describe future treatments in development

#### Hepatitis C

- Describe the current anti-viral therapy(s) and the process to access treatment for chronic hepatitis C infection
- Explain the differences in dosing, depending on the hepatitis C genotype
- Describe contraindications to initiating hepatitis C therapy
- Describe side-effects and management of hepatitis C therapy
- Describe future treatments in development
- Explain the principles of antiviral resistance in relation to hepatitis C therapy

#### **3a.7 Describe tests that are used to monitor a client during therapy for chronic hepatitis B, C and D (pre and post liver transplant)**

- Explain the rationale for laboratory monitoring as detailed in the Canadian Consensus Guidelines

#### **3a.8 Describe screening and therapeutics for hepatocellular carcinoma (HCC)**

- Explain the importance of HCC screening
- Describe the primary screening tests (e.g., alpha fetoprotein, ultrasound)
- Explain available treatment (e.g., surgical resection, radiofrequency ablation, chemoembolization, transplantation, systemic therapy)
- Describe future treatments in development

#### **3a.9 Describe the clinical findings indicative of decompensated liver disease**

- Describe clinical symptoms associated with decompensated liver disease (e.g., ascites and variceal bleed)
- Describe the stigmata of chronic liver disease (e.g., muscle wasting, palmar erythema, clubbing, Dupuytren's contracture)
- Describe the tests used to diagnosis and monitor those with decompensated liver disease (e.g., liver synthetic function, liver biopsy, ultrasound)
- Explain current surgical and medical management (e.g., banding/sclerosing of varices, Portal/Systemic venous system shunting (TIPS), diuretics)
- Explain the role of standardized assessments such as the Child Pugh and Model for End-Stage Liver Disease Score (MELD or MELD-Sodium) in liver disease and transplantation assessment
- Explain how and when to access additional services (e.g., transplant program, palliative care program)

### **Section 3b: Intervention Competencies (System Focused)**

### **3b.1 Recognize methods to effect policy change**

- Describe the role of your employer, non profit/community organizations, and municipal, provincial and federal governments in viral hepatitis prevention, care, and treatment
- Describe nursing activities that can influence policy change (e.g. participation in policy development and systems advocacy)
- Recognize systems and processes that effect viral hepatitis care and treatment (e.g., clinical drug review, government pharmaceutical coverage and social services)

### **3b.2 Recognize methods for ongoing learning**

- Explain the importance of life long learning on nursing practice
- Describe the role of membership in a professional association
- Explain the value of reflective practice in maintaining continuing competence

### **3b.3 Recognize the importance of collaboration**

- Identify and collaborate with other providers and support systems (e.g., mental health and addictions services, local community support groups)
- Identify and participate (as appropriate) in local, provincial, national and international health and social service initiatives

## **Section 4: Evaluation Competencies**

### **4.1 Evaluate clinical effectiveness, client responses, efficiency, cost effectiveness, and ethical considerations of interventions for clients**

- Evaluate the overall effect of interventions based on a synthesis of client data
- Monitor progress towards targeted outcomes within the care continuum from prevention to palliation (i.e., primary, secondary, tertiary, quaternary)
- Facilitate modifications as needed (e.g., increasing treatment demand)
- Document clients care outcomes
- Communicate outcomes to appropriate health care professionals/agencies

### **4.2 Participate in the dissemination of new knowledge in hepatology nursing**

- Disseminates outcomes of changes in viral hepatitis nursing practice to diverse internal and external stakeholders
- Participate in research and/or the dissemination of findings applicable to viral hepatitis practice