

Canadian Association of Hepatology Nurses Cirrhosis Competencies

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Preamble

The Canadian Association of Hepatology Nurses (CAHN) approved the Hepatology Nursing Standards in February 2007, revised in June 2019. The Standards provide a comprehensive framework for the evaluation of professional ethical hepatology nursing practice. Subsequently, a CAHN working group began to develop competency documents that describe core competencies specific to particular liver diseases/conditions. The *Cirrhosis Competencies* pertain to adults and **do not** include specifics for pediatrics or transplantation.

Purpose

CAHN *Cirrhosis Competencies* document provides a mechanism for nurses to examine their practice, determine their learning needs and ultimately improve their knowledge, skill and judgment related to cirrhosis care.

Introduction

The CAHN *Cirrhosis Competencies* document describes compensated and decompensated cirrhosis nursing competencies. The competencies are not intended to be prescriptive, rather they are meant to assist Nurses to identify learning needs appropriate for their particular practice context and seek educational support accordingly. This document can be used by Nurses for ongoing self-assessments and by nurses preparing to transition to cirrhosis practice, education, administration and/or research.

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. This document will best be used in conjunction with the CAHN End Stage Liver Disease (ESLD) educational tool (www.CAHN.ca).

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

As the document reflects current knowledge, CAHN will review and revise it at least every three years.

Cirrhosis Competency Statements

Section 1: Fundamental Knowledge Competencies

1.1 Explain the epidemiology of cirrhosis

- Prevalence and incidence
- Demographics (e.g., ethnicity, gender)
- Risk factors

1.2 Describe the natural history of cirrhosis

- The relationship between liver cirrhosis progression and co-morbidities (e.g., metabolic syndrome, substance use, viral hepatitis)
- The pathophysiology in the development of fibrosis, compensated cirrhosis, decompensated cirrhosis and death
- The risk of Hepatocellular Carcinoma (HCC) development

1.3 Describe changes in liver anatomy and physiology from cirrhosis

- Gross anatomy
- Pathology
- Connection to systemic circulation and portal circulation and the development of portal hypertension
- Intrahepatic and extrahepatic biliary system
- Liver functions (e.g., vascular, metabolic and excretory functions)

Section 2: Nursing Assessment Competencies

2.1 Describe the importance of income and social status in cirrhosis prevention, care and treatment

- The role of income security (e.g., employed, social assistance, retired)
- Types of income assistance available
- The impact of barriers such as unsafe housing, lack of food security and lack of affordable transportation on client health
- Strategies clients can use to access services such as alcohol treatment programs, travel support, and nutritional supplementation
- Access to medication coverage (e.g., private, provincial, NIHB)

2.2 Describe the importance and impact of the client's social network

- Living with uncertainty
- Quality of life
- Dysfunctional lassitude
- Palliation

2.3 Explain how the client's level of literacy can impact health

- Assess the client's understanding of information (e.g., reading, writing, expression and comprehension)
- Use of principles of adult learning (e.g., language that is appropriate to the client's education, literacy level and ethno-cultural context)

- Facilitate client access to evidence-based information (e.g., peer support groups, internet)

2.4 Explain the impact of employment/working conditions

- Individual's rights to confidentiality and privacy
- Decrease exposure to hepatotoxins
- Need to plan for changes in Activities of Daily Living (ADL) and employment

2.5 Understand the influence of social environments

- Importance and impact of social network e.g., community groups
- Access to community resources
- Impact of stigma on health behavior and human rights

2.6 Understand the importance of physical environments

- Housing instability, need for supportive housing
- Importance of a safe home environment (e.g. falls prevention)
- Contribution of the physical environment (e.g., air/ground/water quality and chemical/biological exposure)

2.7 Understand the importance of personal health practices and coping skills

- Promote optimal liver function (e.g., addressing alcohol intake, balanced nutrition, physical activity and smoking cessation)
- Choices can be affected by socio-economic environments (e.g., self-care, advocacy and coping mechanisms)
- Self-esteem, self-worth and resilience can affect health practices
- Impact of historic trauma

2.8 Explain the importance of healthy child development

- Experiences in early life that can affect lifestyle choices and behaviours in adulthood (e.g., childhood obesity, trauma and family history of substance use)

2.9 Describe the role of biology and genetics

- Role of genetic disorders causing cirrhosis
- Importance of family history
- Identification of at-risk individuals or groups e.g., family screening

2.10 Describe the impact of health services on cirrhosis

- Importance of client self-advocacy
- Role of significant others in client advocacy
- Nurse's role in client advocacy
- Nurses' role in advocating for health system change (e.g., improved access for care and medications, participation in advocacy organizations)
- Effect of stigma and discrimination on service access and utilization

2.11 Understand the role of gender

- Recognize gender differences in likelihood of diagnosis, disease progression, and cancer risk

2.12 Understand the impact of culture and ethnicity

- Cultural implications related to cirrhosis
- Culturally sensitive awareness (e.g., avoid actions that diminish, demean or disempower the cultural identity and well-being of an individual)
- Spiritual and religious beliefs impact decisions (e.g., natural healing beliefs)
- Recognize the impact of provider's values on relationships and client decision-making

Section 3a: Intervention Competencies (Client Focused)

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

- Avoid alcohol, tobacco, contraindicated prescriptions, substances, solvents and chemical irritants
- Balance nutrition and exercise to maintain an ideal body weight (e.g., low sodium intake, increased dietary protein (vegetable & dairy sources), night time snack) (https://www.liver.ca/wp-content/uploads/2018/06/99841_Nutrition_in_Cirrhosis_40pg_FINAL-2018-05-29.pdf)
- Immunize to prevent co-morbid diseases (e.g., pneumovax, shingles, influenza, hepatitis)
- Evaluate for cognitive impairment which may impact judgment (e.g., safe operation of a mechanical vehicle, psychomotor performance, decision making capabilities)

3a.2 Provide a medication review and reconciliation

- Prescribed and PRN medication
- Drug to drug interactions

3a.3 Describe and understand the misuse of complementary and alternative therapies

- Use and effects of herbal medications, mega vitamins

3a.4 Explain what the nurse needs to know about cirrhosis assessment

- Stigmata of chronic liver disease (e.g., muscle wasting, palmar erythema, clubbing, Dupuytren's contracture)
- Changes in cognition and ability to make informed choices related to advancing cirrhosis
- Signs of change from compensated to decompensated liver function
- Indicators to seek emergency care (e.g., coffee-ground emesis, slurred speech, weight gain)
- Tests used to diagnose and monitor those with decompensated liver disease (e.g., liver synthetic function, ultrasound, liver biopsy, non-invasive fibrosis tests)
- Clinical importance of the cirrhotic scoring tools (e.g., hepatic venous pressure gradient (HVPG), Child-Pugh, and model for end-stage liver disease (MELD))
- The five clinical stages approach to assessment
- The impact of underlying disease and management

3a.5 Describe the management of portal hypertension

- Common complications e.g. ascites, variceal bleed, encephalopathy etc.
- Screening, surveillance, medical and/or surgical interventions for complications
- Nurse's role in monitoring interventions
- How and when to access additional services e.g., transplant or palliative care programs

3a.6 Describe screening and therapeutics for Hepatocellular Carcinoma (HCC)

- Importance of surveillance (e.g., abdominal ultrasound)
- Treatment modalities (e.g., transplantation, surgical resection, radiofrequency ablation, alcohol injection, chemoembolization, transplantation, radiation and pharmacological agents)
- Monitoring response and side effects to treatment

Section 3b: Intervention Competencies (System Focused)

3b.1 Recognize methods to effect policy change

- Advocacy role of non-profit/community organizations
- Role of healthcare institutions and governments in health policy change (e.g. resource allocation)
- Nursing activities that can influence policy change (e.g., participation in policy development and systems advocacy)

3b.2 Advocate for ongoing nurse education and learning opportunities

- Advocate for cirrhosis education and learning opportunities for nurses and other health care professionals

3b.3 Describe the importance of collaboration

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

Section 4: Evaluation Competencies

4.1 Evaluate client responses, clinical effectiveness, efficiency, cost effectiveness, and ethical considerations of interventions

- Evaluate the effect of interventions and progress towards targeted outcomes
- Discuss findings with appropriate health care providers

4.2 Participate in the discovery and the dissemination of new knowledge in cirrhosis

- Share leading practices
- Participate in research and disseminate findings