

DOMAIN 1

THE NURSE'S ROLE IN CARING FOR PEOPLE WITH, OR AT RISK OF, ADVANCED LIVER DISEASE

NURSES HAVE A ROLE IN IDENTIFYING PEOPLE WITH, OR AT RISK OF, ADVANCED LIVER DISEASE,

and providing culturally appropriate, person-centred education and care that is relevant to the individual's diagnosis and severity of disease, and considers their health literacy and cognition. Nurses are a vital part of the interdisciplinary team that includes hepatologists, general practitioners and other health workers.

ADDITIONAL RESOURCES

Australasian Hepatology Association (AHA)
www.hepatologyassociation.com.au

Australasian Society for HIV, Viral Hepatitis and Sexually Health Medicine (ASHM), Decision Making in Viral Hepatitis Related Advanced Liver Disease. 2016. Sydney: ASHM. Available at: www.ashm.org.au/products/product/978-1-920773-41-0. Accessed December 2018.

» IDENTIFY PEOPLE AT RISK

Assess for risks of advanced liver disease, including:

- Chronic hepatitis, from viral and non-viral aetiologies
- Hazardous alcohol consumption
- Obesity and type 2 diabetes
- Genetic conditions, e.g. Haemochromatosis.

» TEST PEOPLE AT RISK

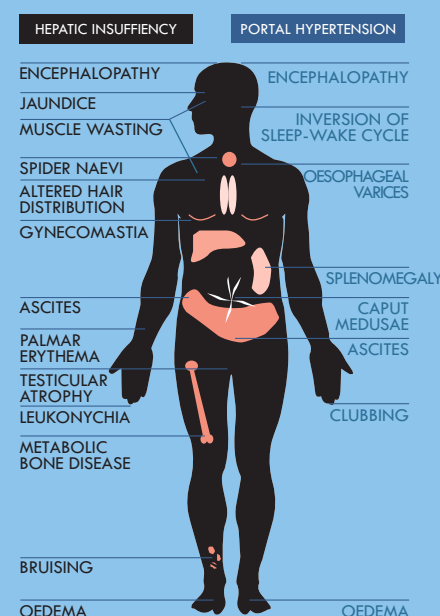
All individuals with chronic hepatitis should be tested for advanced liver disease through:

- Physical examination
- Laboratory testing
- Imaging
- Non-invasive markers of fibrosis including transient elastography, APRI, ELF, Hepascore.

» ASSESS¹

Identify and document the following, to inform the nursing management plan:

- Individual's medical and social history, e.g. diagnosis date, monitoring and treatment history
- Symptoms and signs of advanced liver disease (see diagram)
- Laboratory findings: reversal of AST/ALT ratio, low albumin, high INR and bilirubin, low platelets
- Radiological imaging: ultrasound, CT, MRI
- Assess for varices in individuals with low platelets ($<110 \times 10^9$) and/or median liver stiffness > 25 kPa.



» ADVOCATE²

- Assess the individual's ability to negotiate the health system.
- Empower the individual through coaching and self-management strategies.
- Identify barriers to accessing and receiving care and facilitate flexible approaches to care delivery, including collaborative models between primary and hospital care.

» SUPPORT ADHERENCE³⁻⁶

Explore potential competing priorities and establish systems to promote complete adherence to prescribed treatment by:

- Acknowledging potential for treatment fatigue with long term medication use
- Understand and discuss potential barriers for maintaining complete adherence
- Address barriers to accessing treatment.

» SUPPORT HEPATOCELLULAR CARCINOMA (HCC) SURVEILLANCE^{3,7}

- Identify individuals at risk of HCC and enrol in surveillance. Support individuals to understand and self-manage adherence to the HCC surveillance plan
- Implement a recall system to support the individual to participate in regular HCC surveillance.

» EDUCATE^{2,9,11}

Assess the individual's knowledge of advanced liver disease and its management, specifically:

- Consider the individual's cultural understanding and stigma of liver disease
- Assess coping mechanisms and refer to relevant support
- Provide education about natural history of advanced liver disease, symptoms and signs of worsening liver disease, nutritional status and dietary changes, behavioural changes including elimination of alcohol and other drug use, including tobacco, and liver transplantation.
- Identify strategies to prevent liver disease progression
- Highlight the importance of ongoing monitoring, including HCC surveillance
- Recommend vaccinations for the patient and carer(s)
- Surgical risks and pain management strategies.

» TREATMENT-RELATED CARE¹²⁻¹⁹

The nurse has an important role in providing treatment-related care, including:

- Managing portal hypertension:
 - Explain benefits and side effects of beta blocker use and regularly monitor blood pressure/pulse to ensure optimum dose
 - Educate on symptoms of a variceal bleed and the need for regular variceal screening and treatment.
- Managing ascites:
 - Promote self-management including regular measurement of weight and observation of increased peripheral oedema
 - Explain benefits and side effects of salt restriction and diuretic use
 - Organise and support the individual's admission for large volume paracentesis, as required.
- Managing Hepatic Encephalopathy (HE):
 - Promote self-management of HE including monitoring bowel movements, sleep-wake cycle, cognitive state and medication use
 - Support adherence to Lactulose, explaining benefits and side effects
 - Support adherence to Rifaximin, when prescribed.
- Nutritional stabilisation:
 - Monitor for bone density loss by supporting the use of DEXA scan, nutritional assessment and frailty measures
 - Adhere to principles of nutritional management, including supplements.
- Managing bone density loss:
 - Advocate for and support access to bisphosphonate treatment, as required
 - Support referral to endocrinology, as required.
- Monitor for deterioration of health:
 - Observe for signs of sepsis or infection
 - Support the individual and carer(s) to adhere to the monitoring and surveillance plan for early detection of hyponatremia, acute kidney injury and HCC
 - Provide individual and carer(s) with phone support to manage symptoms, navigate appointments and health concerns
 - Involve the interdisciplinary team to assist the individual and carer(s) with social isolation, financial/work/ housing issues, emotional and mental health support
 - Discuss end of life care, including advanced care planning and palliative care referral.

» MONITORING-RELATED CARE^{7,8,12-16}

- Encourage and support adherence to ongoing monitoring, including screening and surveillance activities and attending medical appointments, specifically addressing the following: HCC surveillance, variceal screening, osteoporosis screening, HE, ascites, portal hypertension.
- Optimise health and prevent liver decompensation by completing a health action plan, including plan for acute deterioration and precipitants leading to decompensation.
- Establish collaborative, flexible models of care to support individuals requiring long term care, e.g. support GPs to deliver nutritional care, and ordering of prescriptions and diagnostics.

REFERENCES

- 1 Augustin S, Pons M, Maurice JB, Bureau C, Stefanescu H, Ney M, et al. Expanding the Baveno VI criteria for the screening of varices in patients with compensated advanced chronic liver disease. *Hepatology* 2017;66(6):1980-1988.
- 2 Hepatitis NSW. Liver Cirrhosis: A Toolkit for Patients. 2018. Hepatitis NSW. Available at: <https://issuu.com/hepatitisnsw/docs/liver-cirrhosis-booklet>. Accessed November 2018.
- 3 Richmond JA, Sheppard-Law S, Mason S, Warner SL. The Australasian Hepatology Association consensus guidelines for the provision of adherence support to patients with hepatitis C on direct acting antivirals. *Patient Preference and Adherence* 2016;10:2479-2489.
- 4 Polis S, Zang L, Mainali B, Pons R, Pavendranathan G, Zekry A, et al. Factors associated with medication adherence in patients living with cirrhosis. *Journal of Clinical Nursing* 2016;25:204-212.
- 5 Agency for Healthcare Research and Quality (AHRQ). AHRQ Health Literacy Universal Precautions Toolkit. 2010 (2nd edition). Available at: www.ahrq.gov/literacy. Accessed December 2018.
- 6 Shea SC. Improving Medication Adherence – How to Talk with Patients About Their Medications. 2006. Pennsylvania: Wolters Kluwer Health, Inc.
- 7 European Association for the Study of the Liver (EASL). EASL clinical practice guidelines: Management of hepatocellular carcinoma. *Journal of Hepatology* 2018;69:182-236.
- 8 Heimbach JK, Kulik LM, Finn RS, Sirlin CB, Abecassis MM, Roberts LR, et al. AASLD guidelines for the treatment of hepatocellular carcinoma. *Hepatology* 2018;67(1): 358-380.
- 9 Austin Health. Advanced Care Planning Australia. 2018. Available at: www.advancerecplanning.org.au. Accessed November 2018.
- 10 Nicoll A, Zekry A. Surgical Risk in Patients with Cirrhosis 2012. Available at: <http://www.assa.org.au/resources/clinical-guidelines-and-updates/surgical-risk-in-patients-with-cirrhosis>. Accessed March 2019.
- 11 Rakoski M, Goyal P, Spencer-Safer M, et al. Pain Management in Patients with Cirrhosis. *Clinical Liver Disease* 2018;11(6):135-140.
- 12 European Association for the Study of the Liver (EASL). EASL clinical practice guidelines for the management of patients with decompensated cirrhosis. *Journal of Hepatology* 2018;69(2):406-460.
- 13 Garcia-Tsao G, Abraldes JG, Berzigotti A, Bosch J. Portal hypertensive bleeding in cirrhosis: Risk stratification, diagnosis, and management: 2016 practice guidance by the American Association for the Study of Liver Diseases. *Hepatology* 2017;65(1):310-335.
- 14 Vilstrup H, Amodio P, Bajaj J, Cordoba J, Ferenci P, Mullen KD, et al. Hepatic encephalopathy in chronic liver disease: 2014 practice guideline by the American Association for the Study of Liver Diseases and the European Association for the Study of the Liver. *Hepatology* 2014;60(2):715-735.
- 15 Runyon BA. Introduction to the revised American Association for the Study of Liver Diseases practice guideline management of adult patients with ascites due to cirrhosis 2012. *Hepatology* 2013;57(4):1651-1653.
- 16 European Association for the Study of the Liver (EASL). EASL clinical practice guidelines on the management of ascites, spontaneous bacterial peritonitis, and hepatorenal syndrome in cirrhosis. *Journal of Hepatology* 2010; 53:397-417.
- 17 Tandon P, Saez R, Berzigotti A, Abraldes JG, Garcia-Pagan JC, Bosch J. A specialized, nurse-run titration clinic: a feasible option for optimizing beta-blockade in non-clinical trial patients. *American Journal of Gastroenterology* 2010;105(9):1917-1921.
- 16 European Association for the Study of the Liver (EASL). EASL clinical practice guidelines on nutrition in chronic liver disease. *Journal of Hepatology* 2019;70(1):172-193.
- 17 Valery PC, Clark PJ, McPhail SM, Rahman T, Hayward K, Martin J, et al. Exploratory study into the unmet supportive needs of people diagnosed with cirrhosis in Queensland, Australia. *Internal Medicine Journal* 2017;47(4):429-435.