Optimal cancer care pathway for people with hepatocellular carcinoma

Prevention: Immunisation for hepatitis B (HBV), monitoring of patients with HBV and hepatitis C (HCV) and use of antiviral drugs can reduce the risk of infection developing into cancer. Strategies to curb alcohol intake and reduce obesity (and hence type 2 diabetes and non-alcoholic fatty liver disease) will also reduce future hepatocellular carcinoma (HCC) burden.

Risk factors include:
- chronic HCV infection
- HBV infection
- a family history of HCC
- cirrhosis of the liver of any cause.

Other risk factors: male gender, older age, viral co-infection, chronic alcohol consumption, obesity, non-alcoholic fatty liver disease, type 2 diabetes, iron overload, aflatoxin exposure and tobacco smoking.

Early detection: Australia does not have a population screening program for HCV, HBV or HCC. Surveillance for HCC should be based on six-monthly abdominal ultrasound in high-risk groups.

Signs and symptoms: The following signs and symptoms should be investigated:
- right upper quadrant abdominal pain or discomfort
- a hard lump on the right side of the abdomen
- worsening liver failure (jaundice, ascites, portal hypertension)
- constitutional symptoms
- the presence of multiple signs and symptoms.

Initial investigations include:
- ultrasound assessment of liver and renal function
- assessment of tumour markers (alpha-fetoprotein (AFP))
- full blood examination
- HBV and HCV serology (HBsAg, anti-HCV antibody).

Tests should be conducted within two to three days of symptom discovery.

Referral: Refer all patients with suspected or proven HCC to a specialist linked with a multidisciplinary team within one week. The multidisciplinary team should have a rapid access program/contact person.

Diagnosis: The following sequence of investigations is suggested:
- four-phase contrast-enhanced computed tomography (CT) scan
- magnetic resonance imaging (MRI) with contrast in patients who cannot tolerate CT contrast or where diagnostic uncertainty remains
- contrast-enhanced ultrasound, in select cases. If diagnostic uncertainty still remains, conduct:
  - positron emission tomography (PET)
  - a liver biopsy (particularly if no surgery is planned).

Staging: Staging parameters include imaging (metastases and vascular invasion), Eastern Cooperative Oncology Group (ECOG) status and Child–Pugh score.

Treatment planning: All patients with suspected or proven HCC should be discussed by a multidisciplinary team before treatment begins.

Research and clinical trials: Consider enrolment where available and appropriate.

Communication – lead clinician to:
- explain to the patient/carer who they are being referred to and why
- support the patient and carer while waiting for specialist appointments.

Communication – lead clinician to:
- discuss a timeframe for diagnosis and treatment with the patient/carer
- explain the role of the multidisciplinary team in treatment planning and ongoing care
- provide appropriate information or refer to support services as required.

1 Lead clinician – the clinician who is responsible for managing patient care. The lead clinician may change over time depending on the stage of the care pathway and where care is being provided.

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Support: Assess supportive care needs at every step of the pathway and refer to appropriate health professionals or organisations.
Cancer survivors should be provided with the following to guide care after initial treatment.

**Treatment summary** (provide a copy to the patient/carer and general practitioner) outlining:
- diagnostic tests performed and results
- tumour characteristics
- type and date of treatment(s)
- interventions and treatment plans from other health professionals
- supportive care services provided
- contact information for key care providers.

**Follow-up care plan** (provide a copy to the patient/carer and general practitioner) outlining:
- medical follow-up required (tests, ongoing surveillance)
- care plans for managing the late effects of treatment
- a process for rapid re-entry to medical services for suspected recurrence.

**Step 4**

**Treatment:**
- Establish intent of treatment:
  - curative
  - anti-cancer therapy to improve quality of life and/or longevity without expectation of cure
  - symptom palliation.

**Treatment of localised HCC**

**Local ablative therapies** are the most common treatment for HCC. They may benefit patients:
- with unresectable disease (due to the size or location of the tumour)
- with a small tumour or tumours (lesions 3 cm or smaller)
- awaiting liver transplant
- with small recurrent tumours.

**Surgery – resection or transplant:** Resection may benefit patients with compensated liver disease and a resectable tumour. Liver transplant may benefit patients with the presence of cirrhosis, including those with decompensation.

**Regional therapies:** Transarterial chemoembolisation (TACE), selective internal radiation therapy (SIRT) or stereotactic therapy may be appropriate.

**Palliative care:** Early referral can improve quality of life and in some cases survival. Referral should be based on need, not prognosis.

**Communication – lead clinician to:**
- discuss treatment options with the patient/carer including the intent of treatment as well as risks and benefits
- discuss advance care planning with the patient/carer where appropriate
- discuss the treatment plan with the patient's general practitioner.

**Step 5**

**Care after initial treatment and recovery**

**Step 6**

**Managing recurrent, residual and metastatic disease**

**Detection:** Most residual or recurrent disease will be detected via routine follow-up or when the patient presents with symptoms.

**Treatment:** Where possible, refer the patient to the original multidisciplinary team. Treatment will depend on the location and extent of disease, previous management and the patient's preferences.

**Palliative care:** Early referral can improve quality of life and in some cases survival. Referral should be based on need, not prognosis.

**Communication – lead clinician to:**
- explain the treatment intent, likely outcomes and side effects to the patient/carer
- establish transition plans to ensure the patient's needs and goals are addressed in the appropriate environment.

**Step 7**

**End-of-life care**

**Palliative care:** Consider referral to palliative care if not already involved. Ensure that an advance care plan is in place.

**Communication – lead clinician to:**
- be open about the prognosis and discuss palliative care options with the patient/carer
- establish transition plans to ensure the patient's needs and goals are addressed in the appropriate environment.


This work is available at: www.cancer.org.au/ocp