key points

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Hepatocellular carcinoma (HCC) accounts for around 90% of liver cancer cases. Intrahepatic cholangiocarcinomas (CC) account for 9-10% of cases. In the UK, there are on average 5,900 new cases of HCC each year with an average five-year survival of 13.1%, although for non-cirrhotic patients who are eligible for liver resection the five-year survival rate is 42%.

Most cases of HCC occur in the context of chronic liver disease with cirrhosis, particularly in those with chronic hepatitis B or C. Other major risk factors include excessive alcohol consumption, obesity and aflatoxins. Overall, 10-15% of cirrhotic patients will develop HCC within 20 years. In the UK, NICE and the BSG guidelines recommend surveillance with ultrasound scanning ± alpha fetoprotein (AFP) testing every six months for patients with established cirrhosis (apart from those receiving end of life care) to screen for early HCC.

In patients with underlying cirrhosis, liver cancer may present with signs of liver decompensation. Early HCC is rarely symptomatic but as it advances, patients may present in primary care with upper or right-sided abdominal pain, jaundice, weight loss, early satiety or a palpable mass in the right upper quadrant. Patients may rarely also present with features of a paraneoplastic disease including erythrocytosis, hypoglycaemia, hypercalcaemia or diarrhoea. Extrahepatic metastases are present at diagnosis in 10-15% of patients, with the most common sites being lung, intra-abdominal lymph nodes, bone and the adrenal glands. CC is frequently not diagnosed until the symptoms of biliary obstruction develop. Patients presenting with an upper abdominal mass consistent with an enlarged liver should be referred for an urgent direct access ultrasound within two weeks.

AFP levels > 400 ng/ml in a high-risk patient are considered diagnostic of HCC. However, AFP is only positive in 60-80% of HCC cases and in small tumours AFP is raised in 10-20% of cases. Diagnosis can be made through contrast-enhanced CT or MRI scan for lesions > 2 cm. If lesions do not fully meet diagnostic criteria or in non-cirrhotic patients, biopsy is recommended to confirm findings. For diagnosis of CC, CA 19-9 is used alongside imaging and biopsy. Staging CT chest, abdomen and pelvis should be performed for all patients with identified liver cancer to assess for metastatic disease.

The Barcelona Clinic Liver Cancer staging system is used to categorise HCC taking into account the number and size of tumours, the patient performance score and the severity of their liver disease (using the Child-Pugh score). Treatment options are determined by the stage. Liver resection is the treatment of choice for HCC patients with a non-cirrhotic liver and for stage 0 or A HCC arising in a cirrhotic liver. For early tumours unsuitable for resection, treatment options are ablation or transplantation.