

What Is Hepatocellular Carcinoma (HCC)? How Is It Coded?

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Hepatocellular carcinoma (HCC) – in simple terms is a cancer of the liver. The liver is a football-sized organ that is situated in the upper right portion of your abdomen, (beneath your diaphragm and above your stomach). HCC is the most common type of primary liver cancer that predominantly occurs in patients with underlying chronic liver diseases such as cirrhosis, infection with hepatitis B or C virus, non-alcoholic fatty liver disease or exposure to toxins such as alcohol or aflatoxin. The condition is different from secondary or metastatic liver cancer, which first starts in other organs such as the breast or colon and spreads to the liver. In most cases, this condition is found more often in men than women and is usually diagnosed in people aged 50 years and older. If diagnosed early, treatment for this condition involves - surgical resection and liver transplantation. The choice of treatment option will depend on the extent and location of the cancer, the condition of the liver, and the overall health of the patient. Medical billing and coding for this liver disease can be complex as there are several rules associated with reporting the condition. Gastroenterologists, hepatologists and oncology specialists offering treatment for HCC need to be familiar with the diagnosis and procedure codes. Outsourced **medical billing and coding services** from an experienced provider can ensure accurate and timely claim filing and reimbursement.

HCC is the ninth leading cause of cancer deaths in the United States. According to reports from Cancer.Net (2018 statistics), an estimated 42,220 adults (30,610 men and 11,610 women) in the US will be diagnosed with primary liver cancer. Men are about 3 times more likely than women to be diagnosed with the disease. When compared to the US, the incidence of liver cancer is much more common in sub-Saharan Africa and Southeast Asia.

What Are the Causes?

The exact reasons why hepatocellular carcinoma develops is not fully known. As the liver disease is a multifactorial disorder – this may involve multiple factors that occur before the disorder develops. The condition arises when liver cells develop changes (mutations) in their DNA (the material that provides instructions for every single chemical process in the body). DNA mutations cause changes in these

instructions, which may lead to cells growing out of control and eventually forming a tumor — a mass of cancerous cells.

However, there are several risk factors that can potentially increase the chances of developing HCC which include - Hepatitis B or C virus infection, chronic inflammation of the liver, heavy drinking habits, iron overload in the body (hemochromatosis), non-alcoholic fatty liver disease, eating foods that have aflatoxin, obesity, diabetes and other metabolic and genetic disorders like - Wilson disease, hemochromatosis, autoimmune hepatitis, alpha-1 antitrypsin deficiency, and primary biliary cholangitis.

Identify the Symptoms

Most patients do not develop any specific signs and symptoms during the early stages of liver cancer. As the cancer grows, patients may experience one of more symptoms like -

- A lump or feeling of heaviness in the upper belly
- Bloating or swelling in the belly
- Loss of appetite and feeling of fullness
- Upper abdominal pain
- Weight loss
- Fever
- Nausea and vomiting
- Pale, chalky bowel movements and dark urine
- Weakness or deep fatigue
- Yellow skin and eyes

Need for Effective Diagnosis and Treatment

As hepatocellular carcinoma (HCC) does not cause any specific symptoms in its early stages, getting an accurate diagnosis is difficult. Accurate diagnosis of symptoms may help in better and effective treatment. The initial diagnosis of the condition will begin with a detailed physical examination wherein the physician will ask questions about symptoms like whether the patient suffers from abdominal pain, loss of body weight, tiredness/weakness and less appetite. Several types of diagnostic tests such as blood tests, imaging tests like MRI, CT scan and

Ultrasound and liver biopsy (removing a sample of liver tissue for testing) will be performed to make a definitive diagnosis of liver cancer. Once the condition is diagnosed, the physician will work to determine the extent (stage) of the cancer. Staging tests help determine the size and location of tumor and check whether it has spread to other locations or organs.

HCC Screening Guidelines

People who have a high risk of developing HCC should enter into a surveillance program. The goal of surveillance program is to diagnose the disease at an early stage when curative treatment modalities exist. The decision to enter a patient into a surveillance program for HCC is based on identifying which patients are at sufficiently high risk of developing HCC. The American Association for the Study of Liver Disease (AASLD) recommends liver cancer screening for the following groups of high-risk patients –

- Hepatitis B and one or more of the following apply: are Asian or African, have liver cirrhosis, or have a family history of liver cancer
- Hepatitis B and C carriers with cirrhosis
- Liver cirrhosis from other causes, such as an autoimmune disease, excessive alcohol use, nonalcoholic fatty liver disease and inherited hemochromatosis
- Primary biliary cirrhosis

Patients need to discuss the pros and cons of screening with physicians and based on the discussions; they need to decide whether screening is right for them depending on their level of risk. The AASLD recommends that high risk patients should be screened with an abdominal ultrasound every 6-12 months.

Treatment Modalities and Codes

There are several effective treatment options for hepatocellular carcinoma (HCC). The type of therapeutic procedures and interventions to be administered may vary from one person to another and may depend on numerous factors such as – disease stage, tumor size, level of liver functioning, presence and absence of certain symptoms and whether the disease has spread (metastasized) to other areas of the body. In addition, patient age, general health, patient preference, potential risk factors, possible side effects and other appropriate factors will also be considered.

For patients who have early-stage cancer (confined to the liver) and who are healthy enough to undergo a surgery, treatment options include surgical resection or liver transplantation. Even when the cancer is confined to the liver, not all patients will be ideal candidates for surgery. There are several non-surgical treatment approaches which include – Chemoembolization, Radiofrequency ablation, Cryoablation and Targeted drug therapy. In severe cases, if physicians cannot remove your cancer through a partial hepatectomy, they may suggest a liver transplant.

Accurate medical coding on the claims is essential on the part of oncologists/**medical coding companies** to ensure proper documentation and reimbursement. Oncologists or other specialists offering treatment for HCC need to report the correct ICD-10 diagnosis codes, CPT procedure codes and HCPCS codes on the claims to receive appropriate reimbursement.

ICD – 10 Codes

- **C22 Malignant neoplasm of liver and intrahepatic bile ducts**
 - C22.0 Liver cell carcinoma
 - C22.1 Intrahepatic bile duct carcinoma
 - C22.2 Hepatoblastoma
 - C22.3 Angiosarcoma of liver
 - C22.4 Other sarcomas of liver
 - C22.7 Other specified carcinomas of liver
 - C22.8 Malignant neoplasm of liver, primary, unspecified as to type
 - C22.9 Malignant neoplasm of liver, not specified as primary or secondary

CPT Codes

- 47370 Laparoscopy, surgical, ablation of one or more liver tumor(s); radiofrequency
- 47380 - Ablation, open, of 1 or more liver tumor(s); radiofrequency
- 47381 - Ablation, open, of 1 or more liver tumor(s); cryosurgical
- 47382 - Ablation, 1 or more liver tumor(s), percutaneous, radiofrequency

- 36245 - Selective catheter placement, arterial system; each first order abdominal, pelvic, or lower extremity artery branch, within a vascular family
- 36260 - Insertion of implantable intra-arterial infusion pump (e.g., for chemotherapy of liver)
- 37211 - Transcatheter therapy, arterial infusion for thrombolysis other than coronary or intracranial, any method, including radiological supervision and interpretation, initial treatment day
- 37212 - Transcatheter therapy, venous infusion for thrombolysis, any method, including radiological supervision and interpretation, initial treatment day
- 37213 - Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed
- 37214 - Transcatheter therapy, arterial or venous infusion for thrombolysis other than coronary, any method, including radiological supervision and interpretation, continued treatment on subsequent day during course of thrombolytic therapy, including follow-up catheter contrast injection, position change, or exchange, when performed; cessation of thrombolysis including removal of catheter and vessel closure by any method
- 37241 - Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; venous, other than hemorrhage (e.g., congenital or acquired venous malformations, venous and capillary hemangiomas, varices, varicoceles)
- 37242 - Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; arterial, other than hemorrhage or tumor (e.g., congenital or acquired arterial malformations, arteriovenous malformations, arteriovenous fistulas, aneurysms, pseudoaneurysms)
- 37243 - Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging

guidance necessary to complete the intervention; for tumors, organ ischemia, or infarction

- 37244 - Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, Hepatic Neoplasm Treatment Payment Policy Page 5 intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for arterial or venous hemorrhage or lymphatic extravasation
- 47120 - Hepatectomy, resection of liver; partial lobectomy
- 47122 - Hepatectomy, resection of liver; trisegmentectomy
- 47125 - Hepatectomy, resection of liver; total left lobectomy
- 47130 - Hepatectomy, resection of liver; total right lobectomy
- 61650 - Endovascular intracranial prolonged administration of pharmacologic agent(s) other than for thrombolysis, arterial, including catheter placement, diagnostic angiography, and imaging guidance; initial vascular territory
- 61651 - Endovascular intracranial prolonged administration of pharmacologic agent(s) other than for thrombolysis, arterial, including catheter placement, diagnostic angiography, and imaging guidance; each additional vascular territory (List separately in addition to code for primary procedure)
- 75894 - Transcatheter therapy, embolization, any method, radiological supervision and interpretation
- 77750 - Infusion or instillation of radioelement solution (includes 3-month follow-up care)
- 77778 - Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
- 77799 - Unlisted procedure, clinical brachytherapy
- 96446 Chemotherapy administration into the peritoneal cavity via indwelling port or catheter

HCPCS Codes

- C2616 - Brachytherapy source, nonstranded, yttrium-90, per source
- Q3001 - Radioelements for brachytherapy, any type, each

- S2095 - Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using yttrium-90 microspheres

Since Hepatitis B and C infections are among the main causes of hepatocellular carcinoma (HCC); prevention of infection is the key to prevent HCC. Taking childhood vaccination against hepatitis may reduce the risk of liver cancer in the future. For patients with liver cirrhosis, alcohol consumption must be avoided.

Medical billing and coding requires knowledge regarding the right coding modifiers and payer-specific medical billing that are essential for correct reimbursement. The support of a reliable and experienced **medical coding service** provider can be helpful for reporting liver cancer correctly.