

NASH Is Major Cause of Liver Cancer Among Transplant Candidates

In 2022, fatty liver disease accounted for nearly a quarter of all liver cancer cases on the transplant waiting list.

July 31, 2023 By [Sukanya Charuchandra](#)

Non-alcoholic steatohepatitis (NASH), an advanced form of [non-alcoholic fatty liver disease \(NAFLD\)](#), is the leading cause of liver cancer among people on the liver transplant waiting list in the United States, according to study findings published in [Clinical Gastroenterology & Hepatology](#).

Over time, fatty liver disease, viral hepatitis and heavy alcohol consumption can lead to severe complications, including [liver cirrhosis](#) and hepatocellular carcinoma (HCC), the most common type of primary [liver cancer](#). Worldwide, HCC is the third leading cause of cancer-related death. While chronic [hepatitis C](#) remains the leading cause of liver cancer among people receiving transplants in the United States, NASH is a growing cause.

Daniel Huang, MBBS, MMED, of the National University of Singapore, and colleagues analyzed the latest trends in the causes of liver cancer among people wait-listed for liver transplants. The researchers accessed registry data from the United Network for Organ Sharing, which coordinates transplants in the United States, from 2000 to 2022.

During this period, 51,721 people on the transplant waiting list had liver cancer and were included in the analysis. Of this population, 20,972 cases were linked to chronic hepatitis C; 6,457 cases were linked to NASH; 6,030 were linked to alcohol; and 2,541 were related to chronic hepatitis B. In addition, 3,936 cases were linked to both hepatitis C and alcohol, while 11,785 had other causes.

NASH was the fastest-rising cause of liver cancer among people awaiting liver transplants. In 2001, only 1.6% of people with liver cancer on the waiting list had NASH, but by 2022, this proportion had risen to 24.3%. During the same period, hepatitis B, hepatitis C and alcohol were less likely to contribute to liver cancer for this population.

From 2000 to 2022, the annual percentage change was 29.8 for NASH, 20.5 for hepatitis B, 19.3 for alcohol alone, 15.6 for hepatitis C, 10.1 for hepatitis C plus alcohol and 12.35 for other causes.

People with alcohol-related liver cancer tended to spend more time on the transplant list and were

less likely to receive a transplant, compared with people with NASH. After transplantation, chronic hepatitis C and the combination of hepatitis C and alcohol were linked to higher mortality compared with NASH.

“The current study highlights the enormous burden that NASH exerts on the health care system and patients by increasing the demand for donor organs and health care resources,” wrote the researchers. “To mitigate the burden of HCC, a paradigm shift in the management of patients with chronic liver disease is required. Early detection and implementation of lifestyle modifications, medical therapy and surveillance may help reduce the burden of HCC.”

Click here to read the study in [Clinical Gastroenterology & Hepatology](#).

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