

Alcoholic liver disease replaces hepatitis C infection as the leading cause of liver transplantation

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Two independent studies have today reported that alcoholic liver disease has now replaced hepatitis C virus (HCV) infection as the leading cause of liver transplantation in the USA in patients without HCC. Non-alcoholic steatohepatitis (NASH) is also on the increase, now ranking second as a cause of liver transplantation due to chronic liver disease.

Chronic HCV infection has remained the leading indication for liver transplantation in the USA for the last two decades.¹ However, the availability of second-generation direct-acting antiviral agents (DAAs) in late 2013 led to a decline in the number of HCV-related liver [transplant](#) waiting list registrations and surgeries from 2015 onwards.^{2,3} Alcohol consumption began to increase markedly in the US during the 1990s and early 2000s, with data highlighting dramatic rises in alcohol use and high-risk drinking in recent years.⁴

The two studies presented this week at The International Liver Congress 2018 in Paris, France, were conducted to evaluate recent trends in the aetiology of liver disease among liver transplant recipients in the USA in view of the changing landscape of potential risk factors. In the first study, data from the United Network for Organ Sharing (UNOS) between 2005-2016 were analyzed, looking at four indications for [chronic liver disease](#): [alcoholic liver disease](#) (ALD), NASH, HCV infection, and HCV/ALD combined. According to the results of the study, the number of liver transplant recipients with HCV peaked in

2014 (1,905 individuals) and has been declining ever since. In contrast, the number of liver transplants due to ALD and NASH has been steadily increasing and, in 2016, there were 1,624 liver transplants performed as a result of ALD, compared with 1,535 due to HCV, 1,334 due to NASH, and 424 due to HCV/ALD.

"Although we found that, overall, alcoholic liver disease became the leading indication for liver transplantation in the US in 2016, NASH was not far behind," said Dr. Jennifer Wang from the California Pacific Medical Center in San Francisco, USA, who presented the study findings. "Importantly, NASH is now the leading cause of liver transplantation in women, which is not entirely surprising given the higher rates of metabolic syndrome in women and the resultant increased risk of non-alcoholic [fatty liver disease](#)."

"In African Americans and those with hepatocellular carcinoma, HCV remains the leading cause of transplantation and a major burden."

The second study presented today also evaluated data from the UNOS registry, looking at first liver transplants performed in individuals without HCC between January 2012 and October 2017. As in the first study, HCV infection remained the leading aetiology for liver transplant recipients until 2016, when ALD surpassed it, accounting for 24% of liver transplants performed compared with 19% for NASH and 18% for HCV. In 2017, ALD, NASH, and HCV were responsible for 24%, 18%, and 17% of [liver transplants](#), respectively, according to the results of this study.

"One of our most worrying findings was that patients with ALD are being listed for liver transplantation at a much younger age and with more severe disease than patients with either HCV infection or NASH," said investigator, Dr. George Cholankeril from Stanford University Medical Center, California, USA. "These are very ominous trends and

we need to take aggressive action to address these rising rates of [liver transplantation](#) in patients with alcoholic [liver disease](#)."

"So far, alcoholic [liver disease](#) has received much less attention with regards to clinical and basic research than either hepatitis B or C,"⁵ said Prof. Helena Cortez-Pinto from the University Hospital of Santa Maria, Lisbon, Portugal, and EASL Governing Board Member. "It is time to change and turn our attention to ALD, both in research and of course in policies that have been shown to reduce consumption, such as increases in taxation, in order to decrease affordability."

More information: References:

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