Health Care for People With NASH and Obesity Will Cost Billions

Over the next two decades, obesity-linked NASH will lead to more deaths and high cost in the United States.

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Non-alcoholic steatohepatitis (NASH) in people with obesity will result in more deaths than NASH in the absence of obesity and will require an estimated expenditure of billions of dollars, according to findings presented at the AASLD Liver Meeting 2021.

Arising from the accumulation of fat in the liver, non-alcoholic fatty liver disease (NAFLD) and its more severe form, NASH, are responsible for a growing proportion of advanced liver disease in the United States and worldwide. In many cases, fatty liver disease is associated with obesity and diabetes. As a result of inflammation, NAFLD can lead to fibrosis, cirrhosis and even liver cancer. With no effective approved medical therapies, disease management is dependent on lifestyle changes such as weight loss and exercise.

Zobair Younossi, MD, of Inova Health System, and colleagues set out to model the clinical and economic burden of NASH in the United States in the context of obesity. Along with data from published scientific research, they categorized population projection data for the period between 2019 and 2040 according to age and obesity.

The researchers accessed data from the National Health and Nutrition Examination Survey III, the National Vital Statistics System and the Scientific Registry of Transplant Recipients databases. Further, they assessed health care costs for inpatient and outpatient care, emergency care and drug costs from published data and the Center for Medicare and Medicaid Services Fee Schedule for 2019.

The team explored the impact of age and obesity on all-cause, cardiac and liver-related deaths, liver transplants, years of decompensated cirrhosis, years of hepatocellular carcinoma (HCC; the most common type of liver cancer) and costs in people with NAFLD and severe fibrosis.

Some 4.5% of the U.S. population was estimated to have NASH in 2019, and 70% of people with NASH had obesity.

Compared with NASH in the absence of obesity, the researchers estimated that from 2019 to

2040, obesity-linked NASH would lead to greater all-cause mortality (75% versus 63%) and cardiac-related mortality (28% versus 9%). However, liver-related deaths were a bit lower in the NASH group with obesity.

For the group with both NASH and obesity, the researchers predicted a total of 31,947 liver transplants, 817,269 years of decompensated cirrhosis and 491,212 years of HCC. For the group with NASH but no obesity, their model projected 11,154 liver transplants, 293,151 years of decompensated cirrhosis and 147,479 years of HCC.

Moreover, the researchers found that obesity-linked NASH could lead to a total expenditure of $126,765,231,245 compared with $48,837,960,130 for NASH in the absence of obesity.

“The growing prevalence of obesity and related NASH will have a major clinical and economic impact in the U.S.,” wrote the researchers. “These data should inform policy makers and other stakeholders to address the growing burden of NASH in the U.S.”

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