Health and Economic Impact of Diabetes and NASH Will Balloon

Non-alcoholic steatohepatitis is an advanced form of non-alcoholic fatty liver disease associated with type 2 diabetes.

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Among people with type 2 diabetes, the next two decades will see a swelling burden, both in terms of health and health care costs, driven by non-alcoholic steatohepatitis (NASH), an advanced form of non-alcoholic fatty liver disease (NAFLD).

Fatty liver disease is increasingly recognized as part of metabolic syndrome, a cluster of conditions that raise the risk of cardiovascular disease. It is commonly linked to obesity, type 2 diabetes, abnormal blood fat levels and high blood pressure.

Zobair M. Younossi, MD, of Inova Health System in Falls Church, Virginia, and colleagues created a mathematical model to project the economic burden of NASH among people with type 2 diabetes in the United States.

Publishing their findings in Diabetes Care, Younossi and his team relied on published studies and medical billing codes and took into account 10 disease states. These included NALFD, four stages of NASH-related fibrosis (scarring) of the liver, hepatocellular carcinoma (HCC, the most common form of liver cancer), liver transplantation, the one-year mark post-transplantation, liver disease–related death, cardiovascular disease–related death and overall mortality.

The size of the cohort fed into the analysis was based on 2017 statistics regarding the rate of diagnosis and the number of people living with NASH as well as the number of people with type 2 diabetes.

The model projected that in 2017, there were 18.2 million people with type 2 diabetes and NAFLD, 6.4 million of whom had NASH. Over a 20-year period, the health care costs associated with NAFLD are projected to reach $55.8 billion. NASH and type 2 diabetes will lead to an estimated 65,000 liver transplants, 1.37 million cardiovascular disease–related deaths and 812,000 liver-related deaths.

“This model predicts significant clinical and economic burden due to NASH with T2DM [type 2

diabetes] over the next 20 years," the study authors concluded. "In fact, this burden may be greater, since we assumed conservative inputs for our model and did not increase costs or the incidence of T2DM over time. It is highly likely that interventions reducing morbidity and mortality in NASH patients with T2DM could potentially reduce this projected clinical and economic burden."

To read the study abstract, click here.
