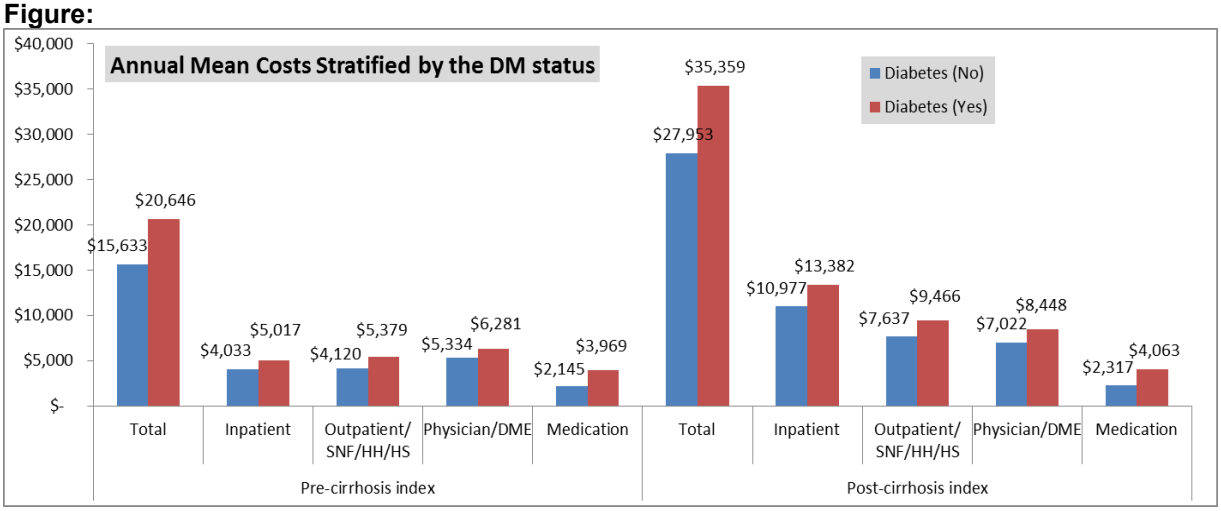
SAT-473

Substantial healthcare utilization (HCU) and costs among non-alcoholic steatohepatitis (NASH) patients with comorbid diabetes mellitus (DM): Real-world analysis of 2007-2015 US Medicare data

Stuart C Gordon[1], Suying LI[2], Yi Peng[2], Xinyue Wang[2], Robert Wong[3]
[1]Henry Ford Hospital, Detroit, United States; *[2]Chronic Disease Research Group, Minneapolis*; *[3]Highland Hospital, Oakland, United States*
Email: sgordon3@hfhs.org

Background and Aims: DM is a known risk factor for NASH. Data on HCU and costs in NASH patients with compensated cirrhosis (CC) by DM status is lacking. This study aimed to evaluate the impact of concurrent DM on HCU and costs among NASH patients with CC.
Method: The study population was extracted from 2007-2015 US Medicare 20% sample data and included NASH/Non-Alcoholic Fatty Liver Disease (NAFLD) patients (identified via ICD codes) with CC aged ≥18 years. First CC diagnosis date marked the index date. Patients with viral hepatitis, HIV, alcoholism or alcoholic liver disease, toxic liver disease, Wilson's disease, autoimmune hepatitis, biliary cirrhosis, gaucher+LAL-D, sclerosing cholangitis, hemochromatosis were excluded. Comorbidities were defined during the 6 months pre-index period (pre). HCU and costs were analyzed during the 6 months pre- and post-index period (post), and adjusted to per patient (PP) annual values in 2015 USD.
Results: The cohort included 3,775 NASH/NAFLD CC patients with mean age 67.0 (±10.9) years and 63.3% females. More than 98% had at least one comorbidities including DM (74.8%), hyperlipidemia (91.6%), and hypertension (93.9%). Annual mean visits (inpatient, outpatient or physician) for CC cohort were 33.9 (pre) vs. 40.7 (post) (p<0.001). Total costs for CC cohort was $19,385 (pre) vs. $33,504 (post) (p<0.001). Comorbidity burden was high in both CC DM patients and CC non-DM patients - hypertension 97.1% (DM) and 84.7% (non-DM); hyperlipidemia 95.3% (DM) and 80.7% (non-DM). For CC DM patients, mean inpatient visits were 0.52 (pre) vs. 0.99 (post) (p<0.001), and for CC non-DM patients, mean inpatient visits were 0.37 (pre) vs. 0.76 (post) (p<0.001). The total costs for CC DM patients were $20,646 (pre) vs. $35,359 (post) (p<0.001), and for CC non-DM patients were $15,633 (pre) vs. $27,953 (post) (p<0.001).
Conclusion: Medicare patients with NASH/NAFLD and CC reported a high comorbidity burden – 75% of them were diagnosed with DM. Diagnosis of CC increased HCU and costs by 20% and 72.8%, respectively. When stratified by DM status, impact of CC diagnosis on HCU and costs among NASH/NAFLD patients was even more substantial – inpatient visits increased by 89.7% (CC DM) and 102.5% (CC non-DM); costs increased by 71.3% (CC DM) and 78.8% (CC non-DM). Early identification and effective treatment of NASH/NAFLD CC patients is needed to reduce the risk of disease progression and higher associated HCU and costs.

Figure:



Durable medical equipment (DME); Skilled nursing facility (SNF); Home health (HH); Hospice (HS)