

Trends in Mortality and Health Care Burden of Cirrhotic Decompensation in Hospitalized Patients: A Nationwide Analysis

Authors: Faiz Afridi¹, MD, Anmol Mittal², MD, Nikolaos Pysopoulos¹, MD

Abstract

Introduction:

Mortality caused by cirrhosis is now the 14th most common cause of death worldwide and 12th most common in the United States. We studied trends in inpatient mortality and hospitalization costs associated with cirrhotic decompensation from esophageal variceal hemorrhage, ascites, hepatic encephalopathy (HE), spontaneous bacterial peritonitis (SBP) and hepatorenal syndrome (HRS) from 2007 to 2014.

Methods:

Using the National Inpatient Sample databases, we first isolated patients 18 years or older with the diagnosis of cirrhosis using ICD-9 codes. We then identified patients with the admission diagnosis of esophageal variceal hemorrhage, ascites, HE, SBP and HRS. Time series regression was used to determine if a trend occurred over the study period.

Results:

A total of 80,357 cirrhotic patients with the studied decompensations were captured. During the study period, time series regression confirmed downtrends in mortality rates for decompensations from HRS and hepatic encephalopathy. No trend was noted in mortality rates for decompensations from SBP, ascites, and variceal bleeding. Length of stay decreased for decompensations from SBP, HE, and variceal bleeding. No trend was noted for decompensations from HRS and ascites. Time series confirmed increases in hospitalization costs for all decompensations except for hepatorenal syndrome.

Conclusion:

From 2007-2014, inpatient mortality rates decreased for cirrhotic decompensations secondary to HRS and hepatic encephalopathy. However, no difference was seen for decompensations from SBP, ascites, and variceal bleeding. Length of stay decreased for decompensations from SBP, HE and Variceal Bleeding while it remained unchanged for ascites and HRS. Hospitalization costs increased across the board except for hepatorenal syndrome.