

Abstract

Background

This retrospective study was conducted to analyze the temporal trends, predictors, and impact of disseminated intravascular coagulation (DIC) on outcomes among septicemic patients using a nationally representative database.

Methods

We derived data from the National Inpatient Sample (NIS) for the years 2008-2017 for adult hospitalizations due to sepsis. The primary outcomes were in-hospital mortality and discharge to facility. The Cochran-Armitage test and multivariable survey logistic regression models were used to analyze the data.

Results

Out of 12,820,000 hospitalizations due to sepsis, 153,181 (1.18%) were complicated by DIC. The incidence of DIC decreased from 2008 to 2017. In multivariable regression analysis, demographics and comorbidities were associated with higher odds of DIC. During the study period, in-hospital mortality among patients with sepsis decreased, but the attributable risk percent of in-hospital mortality due to DIC increased. We observed similar trends for discharge to facility; however, the adjusted odds of discharge to facility due to DIC remained stable over the study period.

Conclusion

Although the incidence of sepsis complicated by DIC decreased, the attributable in-hospital mortality rate due to DIC increased during the study period. We identified several predictors associated with the development of DIC in sepsis, some of which are potentially modifiable.