

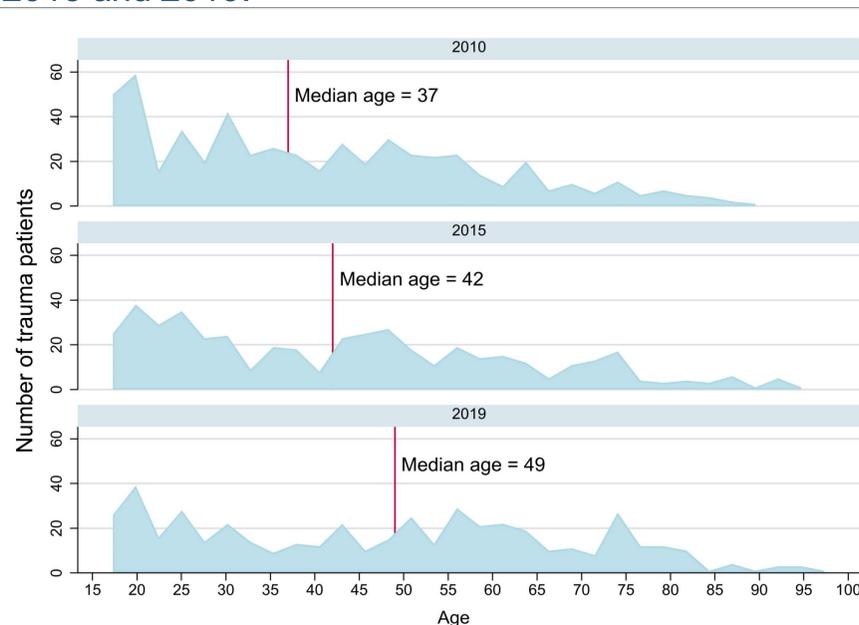
Introduction

This study's aim is to analyze ten-year trends of trauma patients at a major trauma center in Central Denmark Region.

Methods

5366 patients aged ≥ 16 years with Injury Severity Score (ISS) > 0 admitted by trauma team activation at a major trauma center between January 1, 2010 and December 31, 2019 were included. An annual percent change with a 95% confidence interval was used to estimate trends in the mechanism of injuries. Multiple logistic regression with mortality as the outcome was adjusted for age, sex, and ISS.

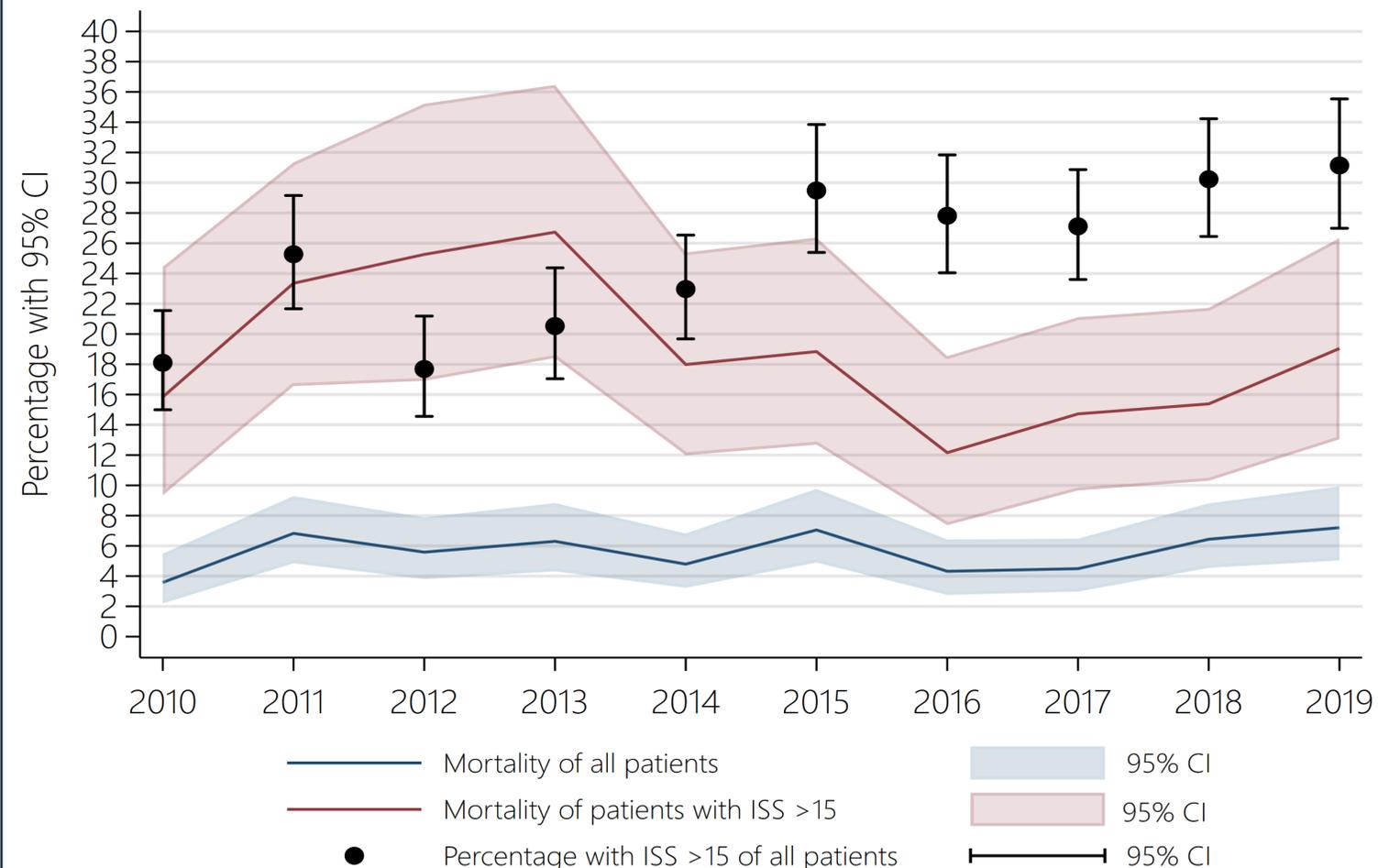
Figure 1: Median age of adult trauma patients in 2010, 2015 and 2019.



Results

The incidence of minor injuries (ISS 1–15) decreased from 181.3/10⁵ inhabitants in 2010 to 112.7/10⁵ in 2019. Severe injuries (ISS > 15) increased from 10.1/10⁵ inhabitants in 2010 to 13.6/10⁵ in 2019. The proportion of patients with ISS > 15 increased from 18.1% in 2010 to 31.1% in 2019. Multivariable logistic regression showed lower 30-day mortality for all trauma patients with ISS > 0 over the study period when adjusting for age, sex, and ISS (Odds ratio: 0.94, 95% CI: 0.90 to 0.99). The 30-day mortality for severely injured patients with ISS > 15 decreased during the study period when adjusting for age, sex, and ISS (Odds ratio: 0.92, 95% CI: 0.87 to 0.97). Fall injuries increased by 4.1% annually (95% CI: 2.3% to 6.1%).

Figure 2: Trend in 30-day mortality of all patients and of severely injured patients (ISS >15). The percentage of patients with ISS >15 is shown in black.



Conclusion

Ten-year trends of trauma patients at a major trauma center in Central Denmark Region show an increasing median age, injury severity, and the number of fall injuries. The 30-day mortality of trauma patients decreased for both minor injuries and severe injuries when adjusting for age, sex, and injury severity.

