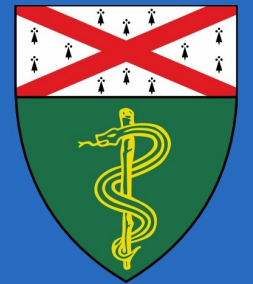


Trend Analysis of Lower Gastrointestinal Bleeding Over a Decade: A Population-Based Study



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INTRODUCTION

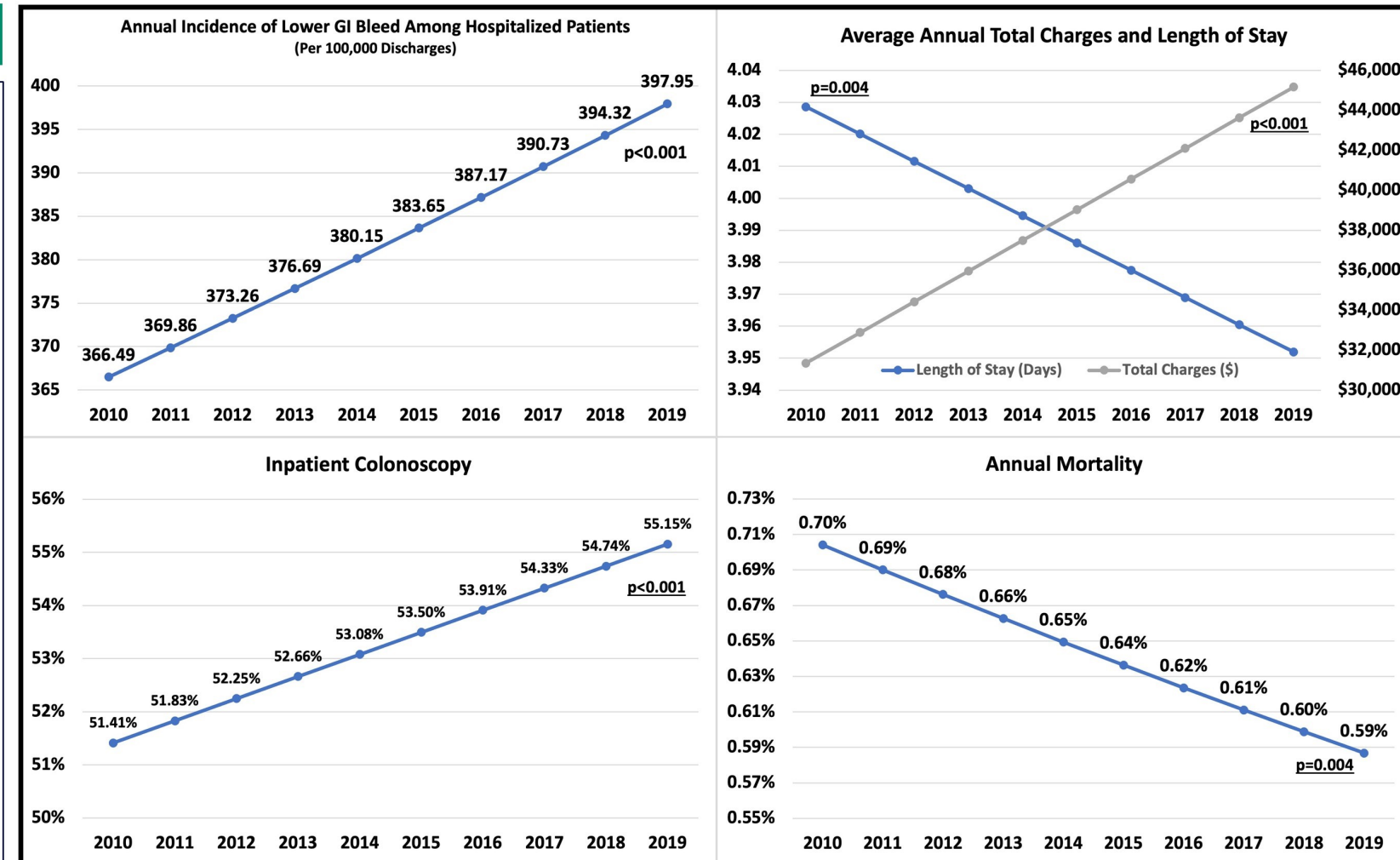
There is a scarcity of data available on the outcome and healthcare cost in patients with lower gastrointestinal bleeding (LGIB) over the past decade. Given improved diagnostic techniques, more access to interventional radiology procedures and increased prescription of direct oral anticoagulants in comparison to the years prior to that we hypothesized that these changes impacted the outcomes of patients presenting to hospitals with LGIB from 2010 – 2019.

METHODS

We performed a retrospective cohort study using the National Inpatient Sample database from 2010 to 2019 of hospitalized patients with primary discharge diagnoses indicating LGIB. Patients with concurrent upper gastrointestinal bleed were excluded. We performed a trend analysis comparing annual inpatient admissions, rates of colonoscopy, length of stay (LOS), total hospitalization charges, and all-cause mortality over the past decade. We applied discharge weights to generate national estimates.

RESULTS

- A total of 1,163,385 hospitalizations with LGIB were identified.
- Diverticular bleed remained the most common diagnosis of LGIB admissions.
- The 2015-19 patients had a lower all-cause mortality (1.00% vs 1.15%, $p < 0.001$) despite a higher mean Charlson comorbidity index (2.18 vs 1.69, $p < 0.001$).
- Over the study period, LGIB annual incidence increased with respect to hospitalizations (366.49 in 2010 to 397.95 in 2019 per 100,000 discharges, $p < 0.001$).
- The number of patients undergoing inpatient colonoscopy increased (51.41% in 2010 and 55.15% in 2019, $p < 0.001$).
- Inflation-adjusted total hospitalization charges were \$13,826 higher in 2019 compared to 2010 ($p < 0.001$).
- There was decrease in all-cause mortality (0.70% in 2010 to 0.59% in 2019, $p = 0.004$).



Trends of incidence, length of stay, cost of hospitalization, rates of colonoscopy and all-cause mortality rate for lower gastrointestinal bleed over a decade

CONCLUSION

Over the past decade, the rate of inpatient colonoscopy has increased, and despite an increase in incidence, the inpatient mortality rate is decreasing in patients admitted with LGIB. Despite patients being sicker, with more interventions and assessments occurring, the overall outcomes are improving, which is encouraging. Future research should focus on how colonoscopic assessment might better direct therapy and improve outcomes.