

Introduction

While most inpatients with diverticulitis are treated nonoperatively, surgical intervention is still periodically required.

This study aims to compare demographics, hospital encounters, discharge dispositions, and cost profiles between patients receiving surgical versus medical management for acute diverticulitis.

Methods

A retrospective analysis was performed using National Inpatient Sample (NIS) data from 2021 and 2022. Patients with a primary diagnosis of diverticulitis along with any associated procedures were defined by using ICD-10 codes.

The primary outcome was management type, and the secondary outcome was inpatient costs. Variables analyzed included patient demographics, socioeconomic indicators, hospital factors, comorbid

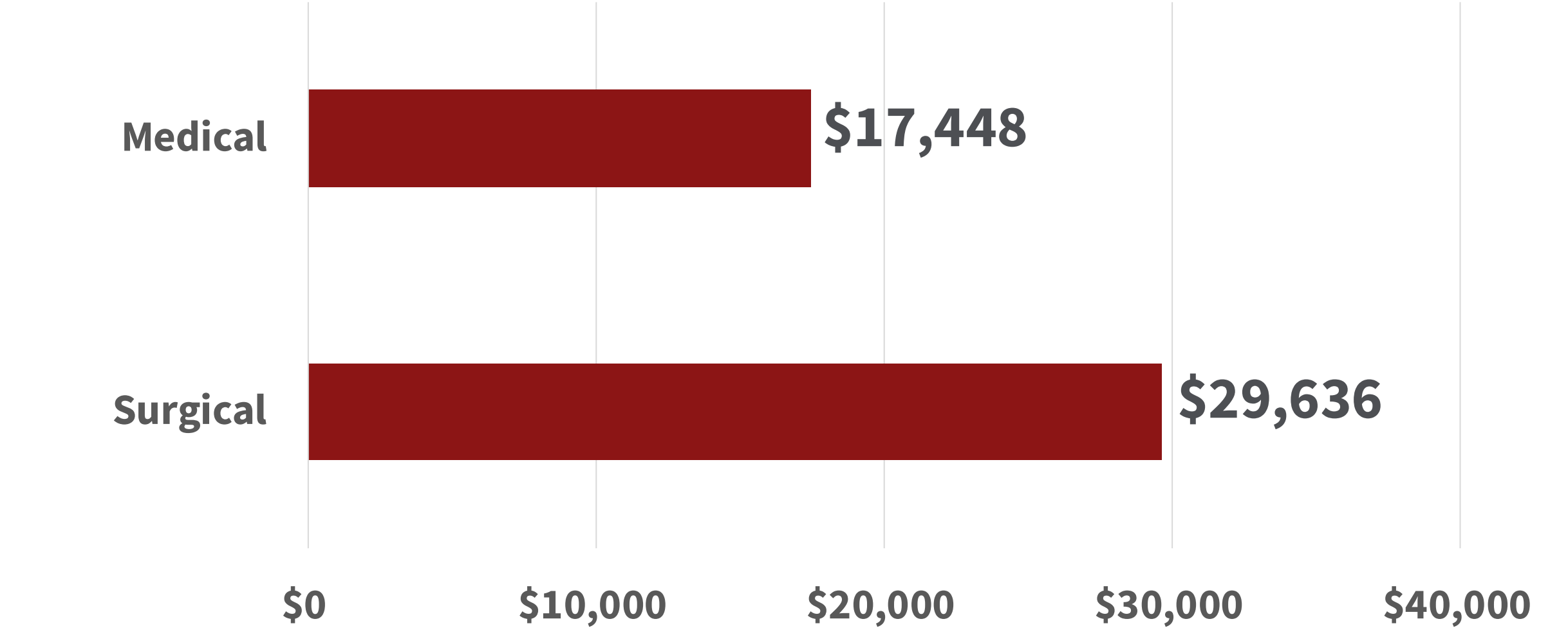
Results

Patient Characteristics

	Surgical N=10,316	Medical N=972,198	p-value
Mean Age in Years	65	71	<0.001
Male	55%	44%	<0.001
Medicare Coverage	50%	68%	<0.001
Non-Elective Care	96%	90%	<0.001
Large Hospital	50%	45%	<0.001
Urban Teaching Hospital	80%	73%	<0.001

Among 982,514 diverticulitis patients, surgical patients were younger (65 vs. 71 years), male (55% vs. 44%), and less likely to be covered by Medicare (50% vs. 68%) compared to medical patients [all p<0.001]. Surgical patients were also more likely to receive non-elective (96% vs. 90%) care at large (50% vs. 45%), urban teaching hospitals (80% vs. 73%) than medical patients [all p<0.001]. Surgical patients incurred higher inpatient costs (\$29,636 vs. \$17,448) and were less likely to be discharged home (50% vs. 63%) than medical patients [all p<0.001].

Mean Inpatient Cost of Diverticulitis Treatment



Logistic Regression Analysis Based on Management Type

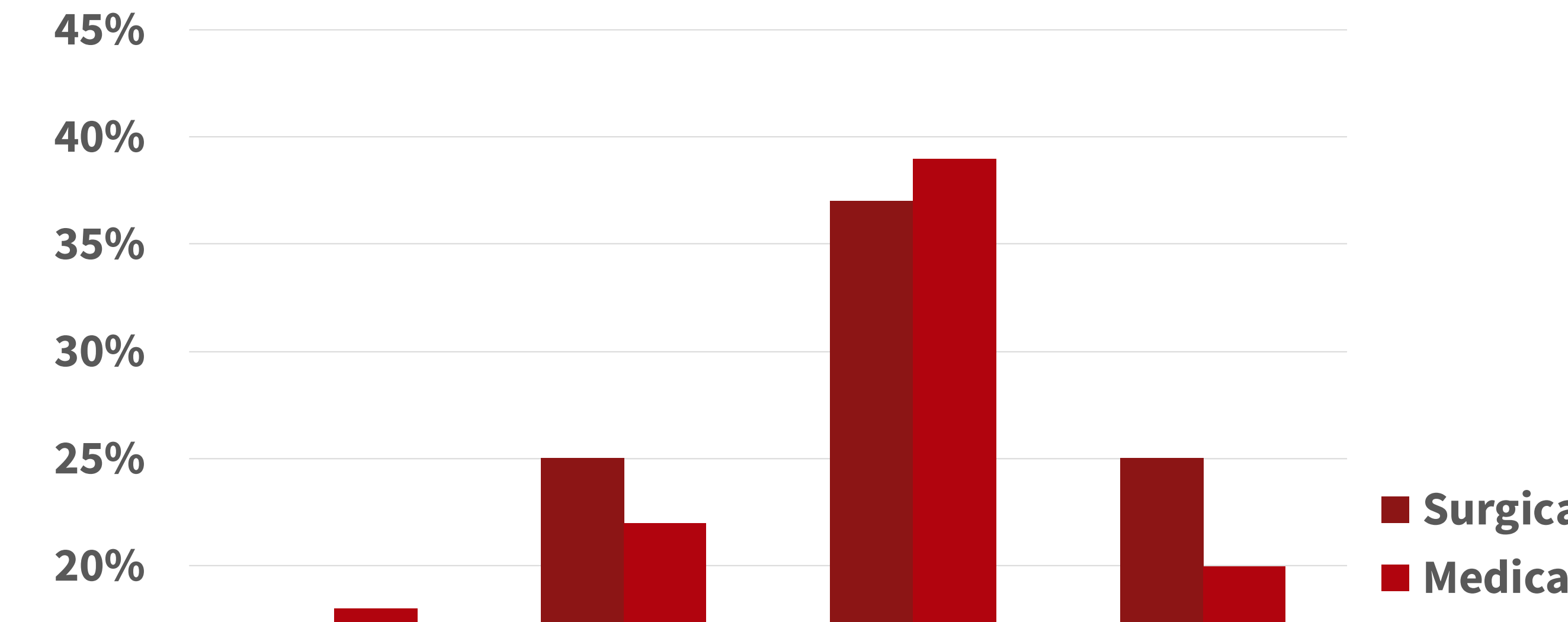
	Odds Ratio	p-value	95% confidence interval	
			Upper	Lower
65 – 74 Years	4.1	p<0.001	2.76	6.40
Female	1.3	p<0.001	1.14	1.47
Large Hospitals	0.67	p<0.001	0.51	0.72
Urban Teaching Hospitals	0.36	p<0.001	0.25	0.52
African American	1.8	p<0.001	1.44	2.26

On adjusted analysis, patients 65-74 years of age (aOR 4.0) and African American patients (aOR 1.81) were more likely to undergo medical management, while those treated at large (aOR 0.67), urban teaching hospitals (aOR 0.36) were more likely to undergo surgical management [all p<0.001]. Women were more likely than men to undergo medical management (aOR 1.3, p<0.001).

Diverticulitis patients located in the Midwest (25% vs. 22%) and West (25% vs. 20%) were more likely to be treated surgically (p < 0.001). Conversely, patients located in the Northeast (18% vs. 13%) and South (39% vs. 37%) were more likely to be managed medically (p < 0.001).

Based upon Zip Income Quartile analysis,

Regional Variation of Management Types



Conclusions

- Surgical management is more common among younger male patients treated in large, urban teaching hospitals. These cases incur higher inpatient costs, mostly arising from non-elective admissions.
- Medical management is more frequently administered to older patients and Medicare beneficiaries. These patients have a higher likelihood of being discharged home.
- Adjusted analyses reveals that treatment in large and urban teaching hospitals decreases odds of receiving medical management. However, African American patients are more likely to be managed medically.

Future Directions

This study highlights important demographic and institutional factors that influence treatment decisions and access to care. These findings highlight