# Does Obesity Affect Outcomes in Acute Pancreatitis?

Rajesh Essrani MD
*Lehigh Valley Health Network*, rajesh.essrani@lvhn.org

Muhammad Usman Zafar
*Lehigh Valley Health Network*, muhammad.zafar@lvhn.org

Hiral N. Shah MD
*Lehigh Valley Health Network*, hiral_n.shah@lvhn.org



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# Does Obesity Affect Outcomes in Acute Pancreatitis?

Rajesh Essrani, MD,[1] Muhammad Usman Zafar, MD,[1] Hiral Shah, MD[2]

[1]General Internal Medicine, [2]Gastroenterology, Lehigh Valley Health Network, PA

## Introduction

Obesity has been described as an epidemic in the United States. Approximately one-third of the US adult population is estimated to be obese, representing a serious public health issue. Obesity can lead to multiple poor health outcomes. We conducted this retrospective study to see how obesity affects outcomes in acute pancreatitis.

## Methods

Data were obtained from the 2017–2018 Nationwide Inpatient Sample. The study included adult patients with a principal discharge diagnosis of acute pancreatitis. Primary outcome (inpatient mortality) and secondary outcome (mean length of hospitalization, and total hospital charges) were compared in acute pancreatitis patients with and without obesity using multivariate logistic and linear regression analysis.

## Results

565,065 patients were admitted with acute pancreatitis and 106,232 patients had both obesity and acute pancreatitis. 54% were male, mean length of stay (LOS) was 4.2 days, and mean age was 52 years.

Obesity had no statistically significant difference in the mortality of acute pancreatitis (Odds Ratio (OR) 1.20, p = 0.091, 95% Confidence Interval (CI) 0.97 – 1.48). Factors contributing to higher odds of mortality include hypotension, sepsis, old age, patients treated at teaching hospital, and patients treated at a large center.

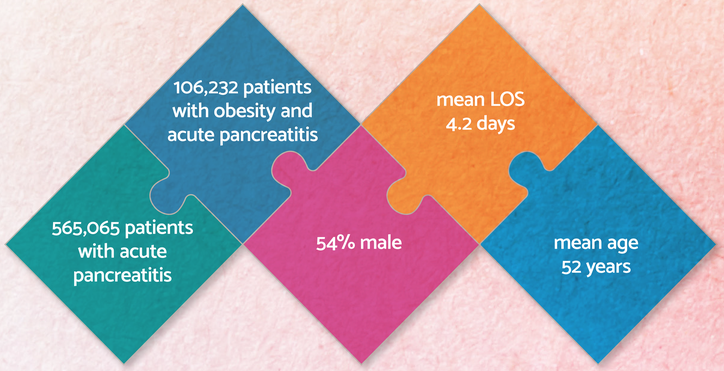
Obesity increases mean length of stay by 0.51 days in acute pancreatitis patients while keeping other variables constant (Coef. 0.51, p = 0.000, 95% CI 0.43 – 0.0.60). Congestive heart failure, hypotension, hypovolemia, sepsis, old age, patient treated at teaching hospital, patients treated at medium/large hospitals independently increases LOS.

Obesity increases mean total hospital charges by $6,473 (p = 0.000, 95% CI 5229 – 7716) in acute pancreatitis patients. Other factors independently increasing total charge include congestive heart failure, hypotension, hypovolemia, sepsis, and old age.

Patients with a higher Charlson Comorbidity Index had increased odds of mortality, LOS, and total inpatient hospital charge.

## Discussion

This study suggests that the presence of obesity in patients with acute pancreatitis predicts higher LOS and total cost but no statistical difference in mortality. Future studies looking into the pathophysiology behind this phenomenon are needed.



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