# Incidence and outcomes of Necrotizing pancreatitis from 2016 - 2019 in the United States

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#### BACKGROUND

Necrotizing pancreatitis (NP) is a complex and heterogeneous disease

- Prolonged hospitalization
- Multiple interventions
- Prolonged disease duration

NP is a complication of Acute pancreatitis, and its epidemiology is not well studied.

We analysed the incidence, complications, and outcomes of necrotizing pancreatitis in hospitalized patients from 2016- 2019.



#### AIM

To study the Incidence of NP

To study the cost of hospitalization with NP

To study the mortality in patients with NP

To study the etiology of NP

### METHODS

We analysed 1586214 adults (aged >17 years) patients included in the National Inpatient Sample (NIS) database that was admitted with AP.

NP was defined using ICD - 10 code.

A multivariable adjusted regression model was used to examine the association of necrotizing pancreatitis with mortality.

## RESULTS

Of the total, 54940 (3.5%) patients (mean age 50.4  $\pm$  17.0 years, 35.9% females, 66.8% whites) were included in the analysis.

There were no racial and gender-based differences.

Mortality rates were higher among AP with necrosis than without necrosis (3.0% vs. 0.7%).

AP with necrosis was independently associated with risk of mortality (OR 4.13, 95% Cl 3.63 - 4.72, p <0.001).

Alcohol abuse was more common as an etiology of AP with necrosis than others (35.3% vs. 30.5%, p <0.001).

The length of stay was longer in necrosis vs. without necrosis (median LOS for AP with necrosis vs. without necrosis; 6 days vs. 3 days, p <0.001).

The cost for hospitalization was higher for NP vs. AP (median cost for AP with necrosis vs. without necrosis; \$53737 vs \$28531, p <0.001).

# RESULTS

There was also a trend in the increase in the diagnosis of AP with necrosis from 2016 to 2019.

# Figure 1. Risk factors for mortality in patients with NP



#### CONCLUSIONS

Acute pancreatitis with necrosis has significantly higher morbidity and mortality. The incidence of this condition is rising, and it is associated with increased cost and length of stay in the United States.

#### REFERENCES

1. Boumitri C, Brown E, Kahaleh M. Necrotizing Pancreatitis: Current Management and Therapies. Clin Endosc. 2017 Jul;50(4):357-365. doi: 10.5946/ce.2016.152. Epub 2017 May 16. PMID: 28516758; PMCID: PMC5565044.