

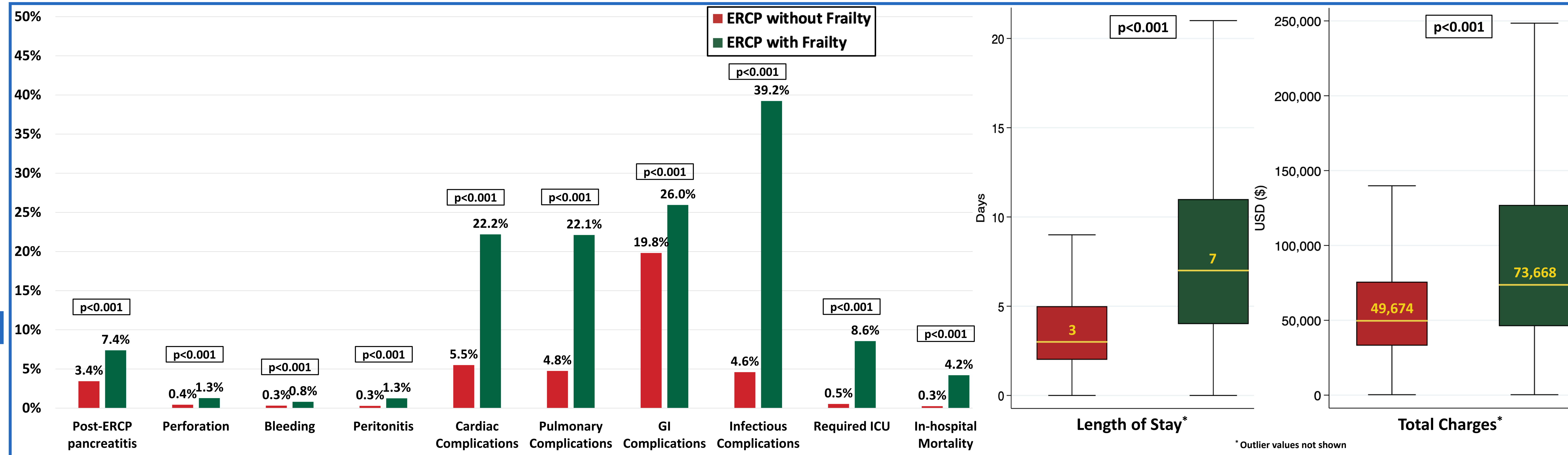
Introduction

- Frailty is an important risk factor and predictor of mortality and adverse events among inpatients.
- We aim to determine the association between frailty and risk of adverse events in hospitalized patients undergoing Endoscopic Retrograde Cholangiopancreatography (ERCP).

Methods

- We conducted a cohort study using the 2017 Nation Inpatient Sample database ICD 10 codes to identify adult patients who underwent ERCP and the Hospital Frailty Risk Score (HFRS) to classify patients as Frail or non-Frail.
- HFRS is a validated algorithm of ICD-10 codes, in which HFRS ≥ 5 is defined as Frail.
- Multivariable analysis logistic regression was performed for outcomes of frail patients compare to non frail patients.

Results



Variable	N=216,775		p-value
	ERCP without Frailty n=148,220	ERCP with Frailty n= 68,555	
Female, %	59.69	52.61	<0.001
Age (years), mean \pm SD	55.87 \pm 18.93	69.37 \pm 15.35	<0.001
Age \geq 65 years, %	37.20	67.85	<0.001
Charlson co-morbidity index, mean \pm SD	1.33 \pm 1.98	3.11 \pm 2.59	<0.001
Hospital Frailty Risk Score, mean \pm SD	1.71 \pm 1.55	8.56 \pm 3.14	<0.001

Table 1: Baseline Characteristics

* p<0.05

Outcome	Adjusted Odds Ratio* (FrailERCP vs NonFrailERCP)	95% CI	p-value
In-hospital mortality	9.93	[7.38 – 13.35]	<0.001
Length of Stay (Days)	4.53 ^{&}	[4.28 – 4.77]	<0.001
Total Charges (\$)	54,659.9 ^{&}	[50,176.52\$ – 59,143.28\$]	<0.001
Cardiac complications	2.29	[2.12 – 2.46]	<0.001
Pulmonary complications	4.90	[4.52 – 5.31]	<0.001
GI complications	1.68	[1.58 – 1.77]	<0.001
Infectious complications	12.83	[11.85 – 13.88]	<0.001
Required Intensive Care Unit	17.19	[13.99 – 21.13]	<0.001

Table 2: Multivariate Regression for the Outcomes

* Analysis adjusted for age, gender, race, hospital location and teaching status, insurance, median household income and Charlson co-morbidity index
& Adjusted co-efficient representing the average difference in this outcome between FrailERCP and NonFrailERCP

Conclusion

- In hospitalized patients undergoing ERCP, frailty status is associated with increased adverse events including all-cause mortality.
- The use of frailty assessments can further guide clinical decision-making when considering ERCP in adult patients.