#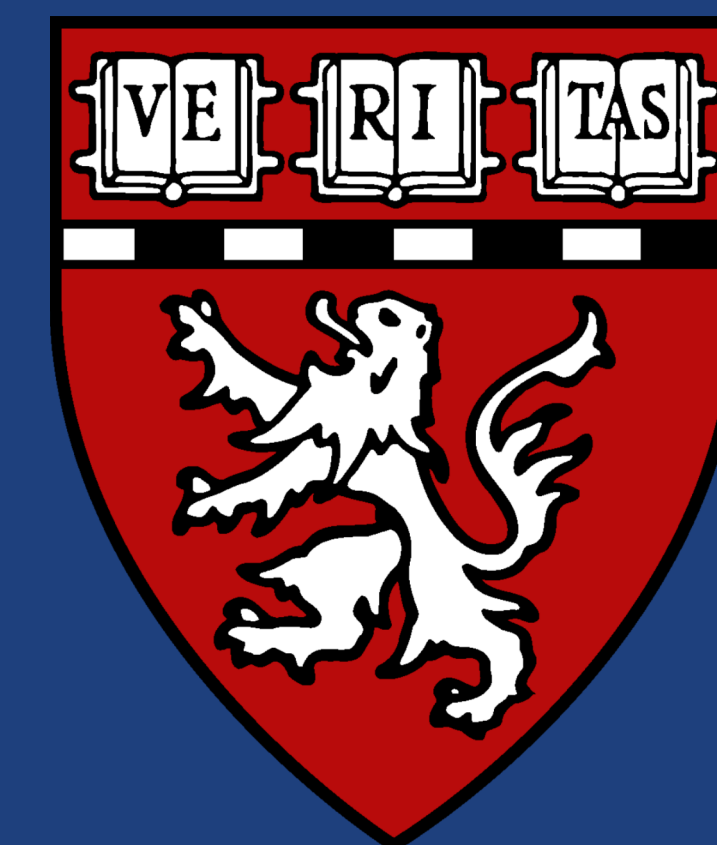 Impact of Opioid Use Disorder on Resource Utilization in Patients Admitted With Inflammatory Bowel Disease: A Nationwide Analysis

Umar Hayat, MD, MPH[1], Maham Waqar MBBS[2], Fnu Faheela, MBBS[3], Muhammad Umar Kamal, MD[4], Osama Abu-Shawer, MD, MS[5], Ali Raza, MBBS, FCPS[3]. Muhammad Haseeb, MD, MSc[6]

[1]University of Kansas, USA, [2]King Edward Medical University, Pakistan, [3]Nishtar Medical University, Pakistan, [4]Essen Healthcare System, USA, [5]Cleveland Clinic, USA, [6]Beth Israel Deaconess Medical Center, Boston, USA.

Introduction

• Opioids are widely used for pain management in patients with Inflammatory Bowel Disease (IBD).

• IBD patients are more prone to developing Opioid Use Disorder (OUD).

Aim: To evaluate the impact of OUD on resource utilization in patients hospitalized with IBD in the US.

Methods

• National Inpatient Sample (NIS) 2019.

• ICD-10-CM Codes to identify a cohort of inpatient IBD admissions with and without OUD.

• A weighted sample was used to get baseline characteristics and resource utilization (length of stay and total hospital charges) during the inpatient admissions.

• Multivariate linear regression analysis followed by predictive margins of the model was used to get adjusted estimates of the length of stay and total hospital charges.
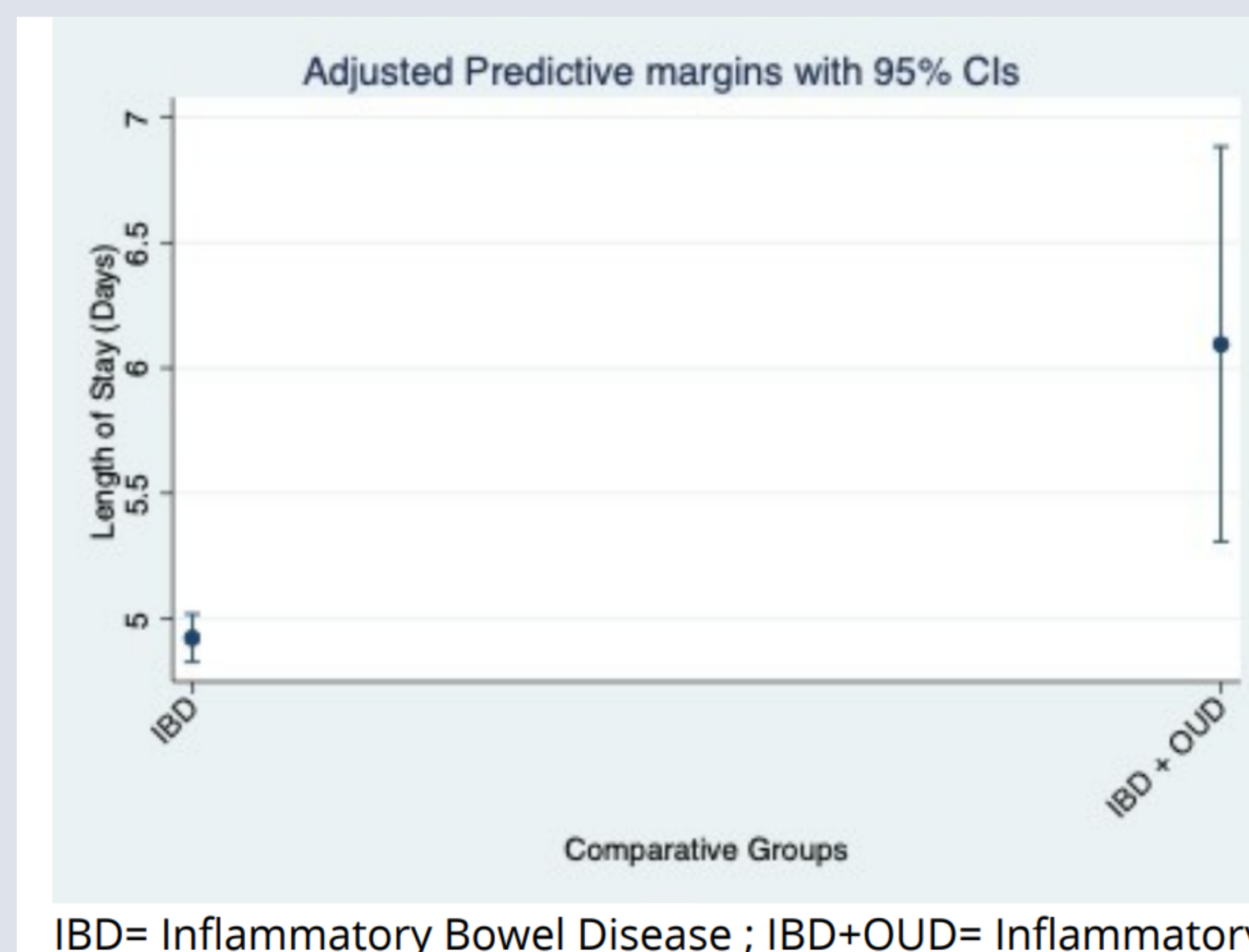
Results

• Among 92740 patients admitted with IBD, 2335 (2.5%) had a concurrent diagnosis of OUD.

Results (Cont.)

Variables	IBD without OUD (90405)	IBD with OUD (2335)	p-value
a) Baseline Patient and Hospital Characteristics			
Age (SD)	46.7 (18.4)	42.9 (13.2)	< 0.01
Female (%)	49030 (54.2)	1150 (49.3)	0.04
Race (%)			0.07
White	65285 (73.7)	1820 (79.1)	
Charlson Comorbidity Index (SD)	0.72 (1.3)	0.79 (1.3)	0.20
Hospital Type (%)			
Urban	84395 (93.4)	2200 (94.2)	0.49
Teaching	70020 (77.5)	1835 (78.6)	0.59
Hospital Bed Size (Large)	46905 (51.9)	1290 (55.3)	0.06
Payer Information (%)			< 0.01
Medicare	24175 (27.8)	840 (36.6)	
Private Insurance	42180 (48.5)	565 (24.6)	
Disposition (%)			< 0.01
Home	74325 (82.2)	1820 (77.9)	
AMA	1985 (2.2)	140 (6.0)	
Died	260 (0.3)	10 (0.4)	
b) Resource Utilization			
LOS (Unadjusted)	4.91 (95% CI 4.81-5.02)	6.17 (95% CI 5.39-6.94)	< 0.01
LOS (Adjusted)	4.92 (95% CI 4.83-5.02)	6.10 (95% CI 5.31-6.88)	< 0.01
TOTAL CHARGES (Unadjusted)	51184 (95% CI 48817-53551)	77603 (95% CI 51333-103874)	0.05
TOTAL CHARGES (Adjusted)	51399 (95% CI 49133-53665)	77013 (95% CI 50604-103421)	0.05

Adjusted for Age, Charlson Comorbidity Index, Hospital (Location, Teaching status, Bed size), Insurance status

Table 1: a) Baseline patient and hospital characteristics b) Multivariate linear regression analysis to get adjusted estimates of length of stay and total hospital charges.

IBD= Inflammatory Bowel Disease ; IBD+OUD= Inflammatory

Results (Cont.)

• OUD was associated with a significantly longer length of stay in IBD patients, 6.10 days (95% CI 5.31-6.88) vs. 4.92 days (95% CI 4.83-5.02) for patients without OUD in the adjusted model.

• In addition, 6% of patients with OUD were discharged against medical advice compared to 2.2 % of patients without OUD.

Conclusions

• OUD was associated with increased resource utilization in patients admitted with IBD.

• They had a longer length of stay despite an increased number of these patients leaving against medical advice.

Presenter's Bio & References