FACTORS ASSOCIATED WITH CANNABIS USE AMONG INPATIENTS WITH INFLAMMATORY BOWEL DISEASE EXACERBATION

E Oseni, MD, M Blumenthal, S Izard, M Qiu, A Mone, MD, A Swaminath, MD, K Sultan, MD
Center for Health Innovations and Outcomes Research, Department of Medicine
Biostatistics Unit, Feinstein Institute of Medical Research

BACKGROUND

- Opioid use for inflammatory bowel disease (IBD) has been associated with an increased risk of disease complications
- Many IBD patients view cannabis use as a safer palliative alternative to opioids
- This study aimed to investigate cofactors associated with cannabis use as a first step before analysis of its impact on patient clinical outcomes
- Note: This research study did not receive any financial support. The investigators retained full independence in the conduct of this research.

METHODS

- A retrospective chart review was conducted of all adult patients admitted for an IBD exacerbation between 2016 and 2020, within the Northwell Healthcare System
- Manual chart review confirmed cannabis use.
- Cofactors including IBD type, age, gender, race, anxiety, depression, alcohol and tobacco use, CCI, inpatient opioid use and hospital length of stay were identified.
- An adjusted analysis was performed of cofactors to determine any association with cannabis use

STUDY POPULATION

- 1021 patients were identified; 47.40% with Crohn's Disease (CD) and 53.09% with Ulcerative Colitis (UC)
- Mean age was 45.28 (SD +/- 20.24). 72.77% of patients were < 60 years
- Pre-admission cannabis use was reported by 7.25%
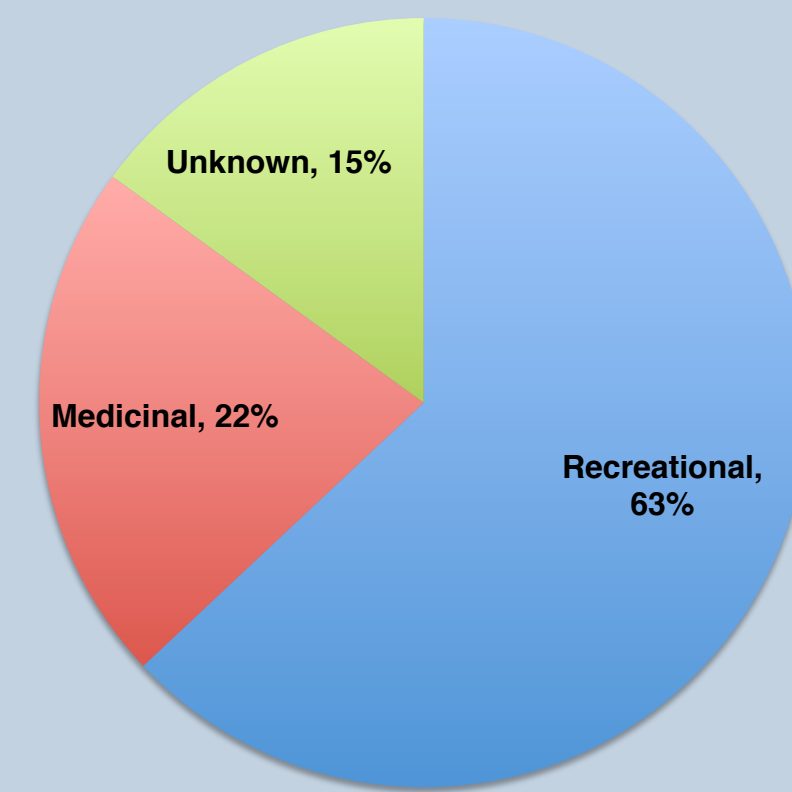
FIG. 1: CANNABIS USE CLASSIFICATION

Unknown, 15%
Medicinal, 22%
Recreational, 63%

FIG. 2: PATIENT CHARACTERISTICS

Age (years)	
Mean (SD)	45.28 (20.24)
Gender	
Female	542 (53.09)
Male	479 (46.91)
Race	
African American/ Black	150 (14.69)
Asian	54 (5.29)
Other/ Multiracial	143 (14.01)
White	674 (66.01)
Cannabis use	
Yes	74 (7.25)
No	947 (92.75)
Alcohol use	
Current	179 (17.53)
Former	24 (2.35)
Never	408 (39.96)
Unknown	410 (40.16)
Tobacco use	
Current	100 (9.79)
Former	172 (16.85)
Never	617 (60.43)
Unknown	132 (12.93)
IBD type	
Crohn's disease	484 (47.40)
Ulcerative colitis	537 (52.60)
CCI	
Mean (SD)	2.17 (2.88)
LOS (days)	
Mean (SD)	6.39 (7.11)

FIG. 3: PRE-ADMISSION CHARACTERISTICS AND CANNABIS USE

	Cannabis use (n=74), n (%)	No cannabis use (n=947), n (%)	Univariable OR (95% CI)	p-value	Multivariable OR (95% CI)	p-value
Patient characteristics						
Age (years)						
Mean (SD)	36.46 (15.52)	45.97 (20.41)	0.98 (0.96, 0.99)	**0.0001**	0.96 (0.94, 0.99)	**0.0009**
Gender						
Female	22 (29.73)	520 (54.91)	0.35 (0.21, 0.58)	**<0.0001**	0.28 (0.16, 0.50)	**<0.0001**
Male	52 (70.27)	427 (45.09)	(REF)		(REF)	
Race						
African American/ Black	21 (28.38)	129 (13.62)	2.51 (1.44, 4.40)	**0.0012**	2.83 (1.52, 5.27)	**0.0011**
Asian	3 (4.05)	51 (5.39)	0.91 (0.27, 3.04)	0.8757	1.12 (0.32, 3.97)	0.8622
Other/ Multiracial	9 (12.16)	134 (14.15)	1.04 (0.49, 2.19)	0.9240	1.11 (0.50, 2.47)	0.8016
White	41 (55.41)	633 (66.84)	(REF)		(REF)	
Tobacco use						
Current	17 (22.97)	83 (8.76)	3.31 (1.78, 6.15)	**0.0002**	2.95 (1.46, 5.96)	**0.0025**
Former	12 (16.22)	160 (16.90)	1.21 (0.62, 2.38)	0.5800	1.72 (0.79, 3.74)	0.1721
Never	36 (48.65)	581 (61.35)	(REF)		(REF)	
Unknown	9 (12.16)	123 (12.99)	1.18 (0.56, 2.52)	0.6664	1.27 (0.50, 3.21)	0.6114
Alcohol use						
Current	17 (22.97)	162 (17.11)	1.32 (0.71, 2.47)	0.3794	1.03 (0.52, 2.05)	0.9246
Former	6 (8.11)	18 (1.90)	4.2 (1.55, 11.37)	**0.0047**	3.75 (1.21, 11.59)	**0.0218**
Never	30 (40.54)	378 (39.92)	(REF)		(REF)	
Unknown	21 (28.38)	389 (41.08)	0.68 (0.38, 1.21)	0.1893	0.51 (0.25, 1.04)	0.0647
Clinical characteristics						
Anxiety						
Yes	14 (18.92)	91 (9.61)	2.20 (1.18, 4.08)	**0.0130**	2.76 (1.31, 5.81)	**0.0074**
No	60 (81.08)	856 (90.39)	(REF)		(REF)	
Depression						
Yes	12 (16.22)	53 (5.60)	3.27 (1.66, 6.43)	**0.0006**	4.07 (1.80, 9.20)	**0.0007**
No	62 (83.78)	894 (94.40)	(REF)		(REF)	
IBD type						
Crohn's disease	42 (56.76)	442 (46.67)	0.67 (0.41, 1.08)	0.0961	--	--
Ulcerative colitis	32 (43.24)	505 (53.33)	(REF)		--	--
CCI						
Mean (SD)	1.35 (2.35)	2.23 (2.90)	0.87 (0.78, 0.97)	**0.0124**	0.97 (0.83, 1.13)	0.7044

RESULTS

- Factors found to be significantly associated with cannabis use include: age (younger), gender (males), race (African Americans), tobacco use, former alcohol use, anxiety and depression.
- These associations were found to be significant on both univariable and multivariable analysis (Fig 3).
- CCI was associated with cannabis use on univariable but not multivariable analysis.
- Cannabis use was most reported to be used by patients recreationally (Fig 1).

CONCLUSION

- Finding suggest that among IBD patients, cannabis use may be less associated with disease activity than with other patient characteristics.
- Further analysis of the impact of cannabis use on IBD outcomes is needed.
- Limitations of the study include possible underreporting and under-documentation of cannabis use, the inability to track cannabis use post-discharge and the inability to account for other factors that may contribute to contribute to cannabis use such as disease severity, duration and socioeconomic status.