## Implementation of Standardized Endoscopic Scoring Systems in Patients with Inflammatory Bowel Disease

# utmb Health

1. Department of Internal Medicine, University of Texas Medical Branch

Jordan Malone, DO<sup>1</sup>; Kevin T. Kline, MD<sup>2</sup>; Sreeram Parupudi MBBS<sup>2</sup> 2. Department of Gastroenterology and Hepatology, University of Texas Medical Branch

#### Background

- Endoscopic scoring systems are an established mechanism for standardized assessment of disease activity in Inflammatory Bowel Disease (IBD) with disease specific systems for Crohn's disease (CD) and ulcerative colitis  $(UC)^{1-4}$ .
- Standardizing scoring facilitates transition of care between endoscopist and treating gastroenterologist and allows for participation of patients in clinical trials<sup>1,7</sup>.
- Despite expert opinion regarding their use in endoscopy, implementation at our institution is suboptimal.

#### Aim

We sought to increase the utilization of standardized endoscopic reporting systems (SES-CD and Mayo Score) for patients with IBD undergoing colonoscopy to 70% at our institution by February 2022.

### Methods

- A query was opened using our institution's endoscopy software, Provation.
- Inclusion criteria were patients with documented or suspected IBD undergoing colonoscopy for the following indications: assessment of disease activity, response to therapy, screening for high-risk dysplasia, screening for suspected IBD.
- This data was then analyzed for inclusion of either the SES-CD for CD or Mayo Score for UC in the final endoscopy report.
- Our intervention included departmental education regarding implementation of standardized IBD endoscopy templates and was implemented 9/1/2021.
- Pre- and post-intervention data was collected.

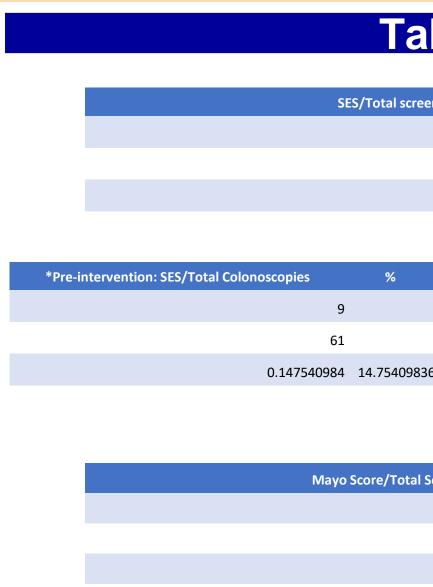
- From August 2020 February 2022, 90 Crohn's Disease endoscopies were performed.
- 61 were performed pre-intervention and 29 following intervention.
- Over this same time period, 160 UC endoscopies were performed
- 121 were performed pre-intervention and 39 following intervention.
- Implementing a standardized endoscopic scoring system for IBD patients may help alleviate some of the subjective reporting variance seen with differing endoscopists<sup>1,5,6</sup>.
- We plan to identify providers who individually may not be meeting our proposed benchmarks and provide further education into the rationale behind adopting this intervention institutionally.
- We are also considering implementation of  $\bullet$ standardized colonoscopy templates for incoming firstyear Gastroenterology fellows to use throughout their training to make standardized reporting more routine.

#### Results

- Prior to the intervention, 14.8% (9/61) of the
- colonoscopy reports included the SES-CD score, and
- following the intervention, 44.8% (13/29) (p = 0.002).

- Prior to the intervention, 46.3% (56/121) of the
- colonoscopy reports included the Mayo score, and
- following the intervention, 84.6% (33/39) (p = 0.00003).

#### Discussion



56 33   121 39   0.462809917 46.28099174	*Pre-intervention: Mayo/Total Colonoscopies	%	*Post-intervention: Mayo/Total Colonoscopies	%
	56		33	
0.462809917 46.28099174 0.846153846 84.6153846	121		39	
	0.462809917	46.28099174	0.846153846	84.61538462

- activity: comparison of the CDEIS and the SES-CD. Inflamm Bowel Dis. 2010 Dec;16(12):2131-6. doi: 10.1002/ibd.21300. PMID: 20848462.
- Drugs and Technologies in Health; 2016 Apr. APPENDIX 5, Validity of Outcome Measures. Available from: https://www.ncbi.nlm.nih.gov/books/NBK539018/
- *journal of gastroenterology = Journal canadien de gastroenterologie, 20*(6), 399–400. https://doi.org/10.1155/2006/828236
- PMID: 3319454.
- components of the Mayo score to assess clinical response in ulcerative colitis. Inflamm *Bowel Dis*. 2008;14(12):1660-1666. doi:10.1002/ibd.20520



Tables

	%
22	
90	
0.244444444	24.44444

	*Post-intervention: SES/Total Colonoscopies	%
	13	
	29	
86	0.448275862	44.82758621

Screened		%
	89	
	160	
	0.55625	55.625

#### References

Koutroumpakis E, Katsanos KH. Implementation of the simple endoscopic activity score in crohn's disease. Saudi J Gastroenterol. 2016;22(3):183-191. doi:10.4103/1319-3767.182455 Sipponen T, Nuutinen H, Turunen U, Färkkilä M. Endoscopic evaluation of Crohn's disease

Elizabeth R. Paine, Colonoscopic evaluation in ulcerative colitis, Gastroenterology Report, Volume 2, Issue 3, August 2014, Pages 161–168, <u>https://doi.org/10.1093/gastro/gou028</u>

Clinical Review Report: adalimumab (Humira) [Internet]. Ottawa (ON): Canadian Agency for

Marshall J. K. (2006). Reporting ileocolonoscopy in inflammatory bowel disease. *Canadian* 

Reproducibility of colonoscopic findings in Crohn's disease: a prospective multicenter study of interobserver variation. *Groupe d'Etudes Therapeutiques des Affections Inflammatoires* du Tube Digestif (GETAID). Dig Dis Sci. 1987 Dec;32(12):1370-9. doi: 10.1007/BF01296663.

Lewis JD, Chuai S, Nessel L, Lichtenstein GR, Aberra FN, Ellenberg JH. Use of the noninvasive