

TITLE: CURRENT STATE ANALYSIS OF MALNUTRITION SCREENING FOR PATIENTS WITH INFLAMMATORY BOWEL DISEASE REVEALS TELEHEALTH IS A RISK FACTOR FOR LACK OF SCREENING

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ABSTRACT BODY:

Background:

Patients with inflammatory bowel disease (IBD) have an increased risk of malnutrition. The prevalence of malnutrition is up to 50% among ambulatory IBD patients and has been associated with worse outcomes, prompting recommendations for regular malnutrition risk screening in all IBD patients. This quality improvement (QI) study details a current state analysis of outpatient gastroenterology (GI) malnutrition screening practices for IBD patients at a large, tertiary care center and evaluates risk factors for lack of malnutrition screening.

Methods:

This retrospective study included a random selection of adults with IBD on advanced therapies seen at a large, academic tertiary care center between 2018 and 2024. Patient characteristics, methods of malnutrition screening, and screening result-directed interventions (referral to registered dietitian [RD], laboratory testing) were abstracted from outpatient GI encounters via electronic medical records. Multivariable logistic regression was performed to evaluate potential risk factors for lack of screening.

Results:

Of 235 included patients, the mean age was 43.8 years (standard deviation [SD] 16.4), mean body mass index (BMI) was 25.9 (SD 5.4), 50.2% were female, 62.1% were White, and 44.2% had Crohn's disease. Most (71.9%) had their IBD-related GI encounter via telehealth. Figure 1 summarizes the outpatient malnutrition screening rate among GI physicians, rates of identified malnutrition risk, and subsequent screening result-directed interventions. Malnutrition screening was performed at 48% of IBD-related GI encounters. When patients were screened, a validated screening tool was used in 12% of these encounters. Screening identified malnutrition risk in 13% of encounters and prompted GI physicians to order RD referrals 53% of the time and nutrition labs 87% of the time in these encounters. Among patients who had a RD referral ordered, 38% saw a RD within 6 months of referral order date. In multivariable models (Table 1), malnutrition screening was significantly less likely if the GI

encounter was a telehealth visit (v. in-person, odds ratio [OR] 0.46, $p=0.02$) and more likely if the patient was Asian (v. White, OR 7.36, $p=0.01$). Age, sex, BMI, IBD type, extraintestinal manifestations, active disease, and receiving care from an IBD specialist were not associated with screening.

Conclusions:

This study reveals the need for improvement in malnutrition screening among GI physicians for IBD patients. Given that telehealth visits were strongly associated with lack of malnutrition screening, strategies to address this care gap are needed, particularly as telehealth has become increasingly more common. The next phase of this QI study will include design and integration of malnutrition screening protocols into outpatient GI practice and evaluation of the impact on screening rates and related clinical outcomes.

Figure 1: Flowchart summarizing the current state of malnutrition screening

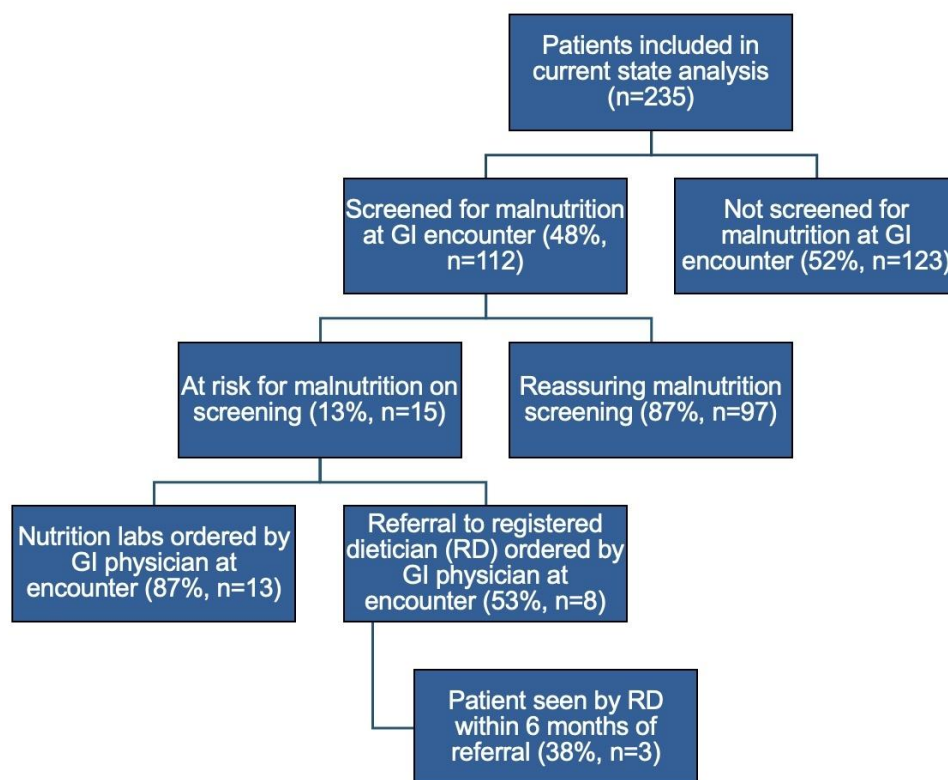


Figure 1: Flow chart depicting the current state analysis of malnutrition screening for IBD patients at outpatient IBD-related GI encounters; N=235.

Table 1: Predictors of having malnutrition screening performed at outpatient GI encounters			
Variables		Outcome: malnutrition screening performed	
		OR (95% CI)	P
Age, years		1.00 (0.98 - 1.01)	0.66
Sex	Male	Reference	0.92
	Female	0.97 (0.56 - 1.70)	
Race	White	Reference	0.07
	Black	0.22 (0.04 - 1.14)	
	Asian	7.36 (1.57 -34.57)	
	Other	0.69 (0.30 - 1.57)	
	Unknown	1.27 (0.55 - 2.90)	
IBD type	CD	Reference	0.73
	UC	0.90 (0.51 - 1.60)	
Active disease		1.60 (0.86 - 2.98)	0.14
Extra-intestinal manifestations		1.27 (0.65 - 2.50)	0.48
Body-mass index		0.98 (0.93 - 1.03)	0.42
Visit type	In-person	Reference	0.02
	Telehealth	0.46 (0.24 - 0.89)	
IBD specialist		0.91 (0.47 - 1.78)	0.79

Table 1: Multivariable regression results for having malnutrition screening performed by outpatient GI physicians at IBD-related GI encounters when adjusted for age, sex, race, IBD type, active disease, presence of extraintestinal manifestations, BMI, visit type, and whether they were followed by an IBD specialist versus general GI physician.