



Diagnostic Utility of Inpatient Fecal Occult Blood Testing

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OBJECTIVE

- To assess the diagnostic utility of fecal occult blood testing in the inpatient setting

INTRODUCTION

- The fecal occult blood test (FOBT) is a screening tool recommended for use in the outpatient setting for the detection of colorectal cancer in average risk patients
- Use in the inpatient setting is not recommended
- There is consistent evidence that inpatient testing may be a detriment to patient care, however there is notable ongoing use of this test in the inpatient setting

METHODS

- This is a retrospective cohort study approved by the University of South Florida and Tampa General Hospital IRBs
- All consecutive adult patients who did not carry a pre-existing diagnosis of colorectal cancer and underwent FOBT between April 2020 and April 2021 in the ER or inpatient settings were eligible for inclusion
- Data extracted included patient demographics, relevant medical comorbidities and treatments, indication for FOBT, and subsequent inpatient GI consultation and endoscopy related to the completion of FOBT

RESULTS

Variable	FOBT negative (N)	FOBT positive (N)	p-Value
FOBT Result	456	370	
Indication for FOBT	n (%)	n (%)	
GI Bleed	45 (24.9)	136 (75.1)	0.000
Anemia	315 (63.1)	184 (36.9)	
Abdominal Pain	7 (63.6)	4 (36.4)	
Diarrhea	15 (83.3)	3 (16.7)	
Constipation	0 (0)	2 (100)	
Abnormal imaging	4 (100)	0 (0)	
Colon cancer screening	3 (100)	0 (0)	
Unknown	67 (62)	41 (38)	
GI Consult Placed			
Yes	151 (33.1)	265 (71.6)	0.000
no	305 (66.9)	105 (28.4)	
Colonoscopy Performed			
Yes	30 (6.6)	55 (14.9)	0.000
No	426 (93.4)	315 (85.1)	
EGD Performed			
Yes	48 (10.5)	134 (36.2)	0.000
No	408 (89.5)	236 (63.8)	
Presence of CRC			
Yes	2 (1.4)	5 (3.2)	0.451
No	142 (98.6)	153 (96.8)	
Source of bleeding identified			
Yes	144 (40)	159 (49.7)	0.013
No	216 (60)	161 (50.3)	

- The two most common indications for FOBT were anemia (60.4%) and overt GI bleed (21.9%)
- A positive FOBT resulted in higher rates of EGD (36.2%) compared with negative FOBT (10.5%; p<0.01)
- A positive FOBT resulted in higher rates of colonoscopy (14.9%) compared with negative FOBT (6.6%; p<0.01)
- A potential source of bleeding or anemia was found in 49.7% of patients with a positive FOBT who underwent endoscopy compared to 40% of patients with a negative result (p = 0.013)

DISCUSSION

- The findings of our study show that the diagnostic utility of FOBT in the ED or inpatient setting is poor and of low yield
- Only a minority of patients were subsequently diagnosed with colorectal cancer after a positive FOBT
- FOBT use was associated with several follow up tests and consults which may be considered a significant misuse of valuable time and resources
- One potential implication from our findings could be the development of a decision support system in the electronic medical record to guide healthcare professionals in optimal decision making when assessing a patient with suspected bleeding or anemia in the ER or inpatient settings

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