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Endoscopy nurse triage significantly reduces urgent, non-urgent and surveillance endoscopies with significant inter-rater agreement with consultant gastroenterologists after 1 year

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Despite established referral guidelines many patients are referred inappropriately for symptomatic and surveillance endoscopy. Triage of endoscopy referrals is essential to reducing waiting lists. Limited data exists assessing the impact of the endoscopy nurse triage and inter-rater agreement (1). We prospectively compared the effect of our triage nurse on endoscopy referrals and inter-rater agreement between triage nurse and consultant gastroenterologists.

Methods

All endoscopy referrals including health-link between January 2019 and July 2020 were stratified into urgent/(P1), non-urgent/(P2) and surveillance groups prior to nurse triage based on established HIQA/BSG guidelines. Missing referral data including prior endoscopy/histology and alarm symptoms were validated by telephone before being vetted by 4 consultant gastroenterologists. Inter-rater agreement between nurse triage and consultant gastroenterologists were compared for the periods Jan-Mar 2019 and May-July 2020.

Summary of inappropriate referrals received:

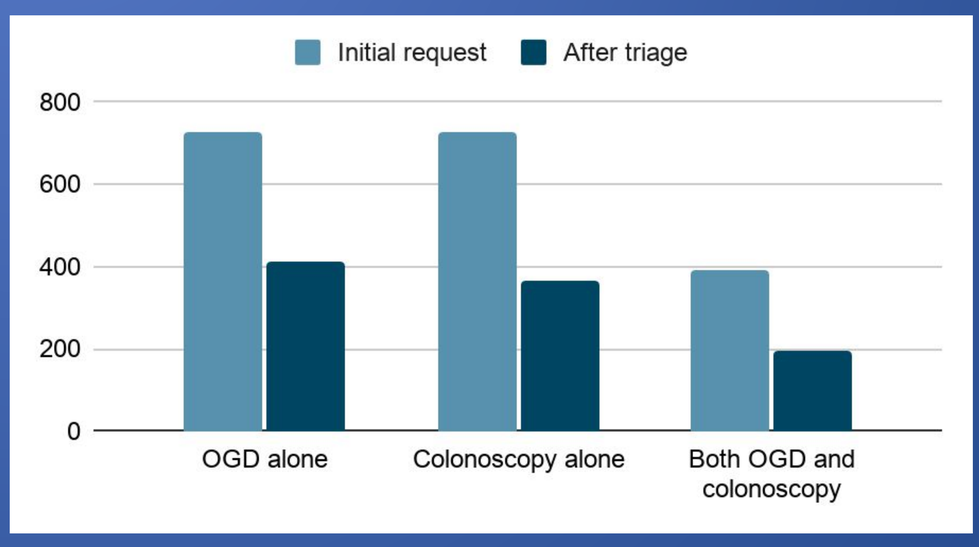
The role of the endoscopy triage nurse includes calling patients to get a more accurate history regarding the reason for referral, review of blood results and previous endoscopy, and ultimately to change the request to that deemed appropriate as per BSG and local guidelines. Of the 2273 referrals received for endoscopy, 1126 were deemed inappropriate by the endoscopy triage nurse for a wide variety of reasons. Reasons that referrals were deemed inappropriate included recent previous endoscopy, patient already being on a waiting list for endoscopy or the patient not being suitable for procedure secondary to co-morbidities. A consideralbe number of patients had their referral amended as a result of their age. Many patients <40 years of age were referred without prior blood work or faecal calprotectin. Having no alarm symptoms that fulfilled criteria for referral received was the most common reason for referral being changed.

Examples of reductions by referral pathway

	Initial request	After triage	Reduction
Direct access/ e-referral/ GP			
OGD alone	691	415	40%
Colonoscopy alonge	669	376	43.8%
Both OGD and colonoscopy	371	245	34%

	Initial request	After triage	Reduction
Outpatient/ ED			
OGD alone	34	11	67.6%
Colonoscopy alone	55	29	47.2%
Both OGD and colonoscopy	20	10	50%

Total reductions made



Discussion:

A PubMed search for ‘endoscopy’, ‘nurse’ and ‘triage’ reveals one study. The majority of nurse triage studies originate in the setting of the emergency department and acute triage decision making. Acceptable inter-rater agreement has been observed in these studies (2). Of the 2273 patients referred for endoscopy in our database, 1231 patients were urgent/P1, 615 were non-urgent/P2 and 427 were surveillance. Nurse triage reduced urgent referrals by 56% ($p<0.001$), non-urgent referrals by 27% ($p<0.001$) and surveillance referrals by 36% ($p<0.001$) with a large proportion redirected back to GP, OPD, HP testing, FIT, CT colonography or discharged from surveillance lists. Substantial agreement between triage nurse and consultant gastroenterologists in early 2019 (=0.645) increased to almost perfect agreement by mid 2020 (=0.94), $P<0.001$).

Conclusion:

Endoscopy is a limited resource that carries significant costs for the provider and risk of complications to the patient. Triage of referrals to ensure appropriate use of this limited resource is important as waiting lists face growing pressure. Appropriate triage is needed to ensure that those who need timely endoscopy are accessing our service within appropriate time frame. Our work to date has shown that endoscopy nurse triage can achieve significant reductions and cost savings in P1, P2 and surveillance endoscopy referrals. After 1 year, endoscopy nurse triage using established endoscopy referral guidelines can approximate decision making by experienced gastroenterologists.

References:

1. Stephen Innes et al. Agreement of triage decisions between gastroenterologists and nurses in a hospital endoscopy unit. Clin Exp Gastroenterology 2018; 11: 399-403
2. Amir Mirhaghi et al. The Reliability of the Canadian Triage and Acuity Scale: A Meta-Analysis. N Am J Med Sci 2015. 7 (7): 299-305