

Pilot of a Quantitative Faecal Immunochemical Test (FIT) Directed Iron Deficiency Anaemia (IDA) Pathway in NHS Lothian

Ong S¹, Penman ID¹, Plevris J¹, Noble C², McGowan A¹, Shandro B¹, Kalla R¹, Masterton G¹, on behalf of EGAR (Edinburgh GI Audit and Research)

1. Gastroenterology Unit, Royal Infirmary of Edinburgh
2. Gastroenterology Unit, Western General Hospital

Introduction

IDA represents 10% of referrals to gastrointestinal (GI) services. In November 2021, the Scottish government published a symptom-based pathway to allow “decoupling” of bidirectional GI investigations. Stool FIT testing is superior to symptoms for assessing risk of colorectal cancer, so we piloted a novel FIT-directed IDA pathway.

Methodology

Data were collected and analysed from patients with confirmed IDA at NHS Lothian from October 2022 to December 2022, stratified based on FIT and further investigations as per the pathway (appendix). Patients were sent 2 FIT tests. The cutoff value for a positive FIT is >10 ugHb/g stool. Those ≥ 1 positive FIT sample are categorised as positive FIT, those with 2 negative FIT samples are categorised as negative. Patients who did not complete the FIT samples were excluded from the analysis. High risk colorectal polyps are defined as ≥ 5 premalignant polyps (serrated polyps and adenomatous polyps) or ≥ 2 premalignant polyps including ≥ 1 advanced colorectal polyp (adenoma ≥ 1 cm).

Results

There were 262 referrals, of whom 233 patients had confirmed IDA. 86 were males and 147 were females. The mean age of the patients was 67 years (range 21-94 years). 194 (91.5%) patients completed the FIT testing. 77 (39.7%) patients have positive FIT, 117 (60.3%) patients have negative FIT.

Of those with positive FIT, 9 (11.7%) had cancer, of which 6 were colorectal cancers and 3 were non-GI cancers. There were 7 (9.1%) high risk colorectal polyps; 10 (13%) conditions that require monitoring or treatment, such as peptic ulcer disease and Barrett’s oesophagus. 51 (66.2%) FIT positive patients had no significant pathology found on investigation.

Of those with double negative FIT, there was no cases of colorectal cancer on follow-up. There were 3 (2.6%) cancers, of which 2 were oesophago-gastric cancers and 1 was a mesenteric lymphoma. 6 (5.1%) had high risk colorectal polyps and 14 (12%) had conditions that require monitoring or treatment. In this pilot study, the sensitivity and specificity of FIT for colorectal cancer were 0.62(IQR: 0.55- 0.69) and 1.00 (IQR: 0.54-1.00). For all cancers, sensitivity was 0.63 (IQR:0.55-0.70) and specificity was 0.75 (0.43-0.75).

Conclusion

This novel IDA pathway incorporated FIT to direct the investigative strategy in keeping with the 2021 Scottish Government Pathway. It allowed safe decoupling of IDA investigations and in this small group was effective at prioritising investigations without significantly delaying or compromising diagnosis.