British Society of Gastroenterology (BSG) and Association of Coloproctology of Great Britain and Ireland (ACPGBI) guidelines on the role of faecal immunochemical testing (FIT) in the endoscopic investigation of iron deficiency anaemia (IDA) 2025

INTRODUCTION

The rapidly emerging evidence base for the use of faecal immunochemical testing (FIT) in the investigation of possible colorectal malignancy has resulted in widespread use of FIT as a triage tool between primary and secondary care. This has caused some disruption to established investigation pathways for iron deficiency anaemia (IDA) and confusion regarding the role of FIT in planning any investigation, especially with regard to the upper gastrointestinal (UGI) tract. To provide some clarity, the British Society of Gastroenterology (BSG) commissioned a small group drawn from the guideline groups for both the BSG faecal immunochemical test (FIT)[1] and iron deficiency anaemia (IDA)[2] guidelines, the BSG endoscopy section and the Association of Coloproctology of Great Britain and Ireland (ACPGBI) to assess current evidence and produce guidelines.

These guidelines are additive to the two published guidelines and act as clarification. It does not replace them. For example, it is still recommended that coeliac serology should be requested in primary care prior to referral.

There is a variation of how the investigation of IDA is managed in different parts of the UK, including who oversees the referral process and how investigations are arranged. These guidelines should be adopted according to local processes and governance.

These BSG/ACPGBI guidelines represent a consensus of best practice based on the available evidence at the time of preparation. They may not apply in all situations and should be interpreted in the light of specific clinical situations and resource availability. Further controlled clinical studies may be needed to clarify aspects of these statements, and revision may be necessary as new data appear. Clinical considerations may justify a course of action at variance to these recommendations, but we suggest that reasons for this are documented in the medical record. BSG guidelines are intended to be an educational resource to provide information that may assist in providing care to patients. They are not rules and should not be construed as establishing a legal standard of care or as encouraging, advocating, requiring or discouraging any particular treatment.

METHODS

The guidelines were developed by a working group comprising the authors of this publication, following a systematic literature review using PubMed. Search terms included iron deficiency, anaemia, faecal immunochemical testing and FIT. Relevant articles were identified through this search, along with additional articles sourced from the reference lists of those publications. The draft guideline was then sent to the BSG Clinical Services and Standards Committee for comment and refinement. The finalised guidelines were then sent to the Delphi panel used in the creation of the BSG FIT guideline[1] to establish strength of recommendations, ensure no relevant published evidence had been omitted and to help identify key research questions. This Delphi group included gastroenterologists, surgeons, general practitioners and clinical scientists.

41 individuals responded to at least three of the recommendations made. Those unable to express an opinion and/or abstaining from voting were excluded from analysis. 80% agreement (either strongly agree or agree) was taken as the cut-off for a strong recommendation. The recommendations in these guidelines include the percentage figure for agreement and the number of responses, excluding abstentions.

Role of FIT in patients with IDA

FIT thresholds vary between studies but are usually set at 4–10 µg/g. For the purposes of these guidelines, we will use the phrases 'above threshold' and 'below threshold' to allow evidence based on this range of cut-offs to be included. For pragmatic purposes, though, the cut-off of 10 µg/g is an acceptable threshold for these guidelines.

FIT is well established as a triage tool in the investigation of patients with signs or symptoms suggestive of colorectal cancer (CRC).[1] There is a difference between current BSG guidelines in the specific role of FIT testing in IDA. The 2022 BSG FIT guidelines[1] stated: "We suggest that FIT be used for people with iron deficiency anaemia within primary care to inform urgency of referral". In the earlier 2021 update of the BSG IDA guidelines,[2] the recommendation stated: "There are insufficient grounds at present to recommend faecal immunochemical testing for risk stratification in patients with IDA", although it was noted that the evidence base was evolving rapidly.

This difference is based on concerns about the small but definite false negative rate for detecting CRC in patients with IDA using FIT. Estimates of sensitivity of FIT in IDA for detecting CRC are 96.7% at 10 µg/g and likely to be higher at 4 µg/g,[1] but this is unproven.

Very few studies have assessed the utility of FIT or faecal occult blood testing (FOBt) for UGI lesions in the context of IDA. Significant UGI pathology (although not necessarily causing GI bleeding) has been detected in 29%–52%[3–5] of patients with FIT above threshold and IDA. A recent meta-analysis of UGI endoscopy in patients with FIT above threshold regardless of serum haemoglobin concentration showed abnormal findings in 24%–86% of cases.[6] It should be noted that most of

the studies used in this meta-analysis were on South East Asian population groups with only one study from Europe[7] and included patients in screening programmes. UGI cancer is a less frequent finding in patients with IDA than CRC, but is still detected in around 5% of patients.[2 5] Data are limited but UGI cancer has been reported in 2.1%–3.0% of patients with IDA and FIT above threshold/FOBt positive.[3 8] Very few UGI cancers have been found in patients with anaemia who have had a FIT performed, which is below threshold and rates are estimated at 0.3%–0.5%.[3 9] Therefore, malignancy appears uncommon in a patient with FIT below threshold. UGI endoscopy is probably most useful to detect non-malignant causes of IDA but is still warranted in all, irrespective of FIT result.

There are no data, to our knowledge, on the diagnostic utility of FIT in patients with IDA and UGI alarm symptoms,[10] compared with those without alarm symptoms.

Based on this weak evidence base, it seems reasonable to suggest that all patients with IDA should be referred for consideration of both UGI and lower GI investigations. However, patients with FIT result below threshold do not need to be referred under the urgent suspected cancer pathway unless they have other symptoms suspicious of malignancy.

Bidirectional endoscopy

The use of bidirectional endoscopy (BDE) in the investigation of IDA is well established in the UK and elsewhere. There remains debate about the order of UGI endoscopy and colonoscopy, with most centres favouring UGI endoscopy first due to both established practice and the presumption that UGI endoscopy is better tolerated when sedation is maximal. There are, however, data to support either UGI endoscopy or colonoscopy first in those not having propofol sedation.[11–13] The latest American Gastroenterological Association technical review on GI evaluation in IDA[14] does not recommend either order, only specifying that procedures should be done on the same day where possible.

Given the low rate of dual pathology in those with CRC and IDA, it could be argued that if colonoscopy is done first and CRC detected, there is no need to proceed to UGI endoscopy. This would potentially save 5%–10% of UGI endoscopies in this setting depending on other patient demographics. One study[5] has examined different protocols to include FIT testing in the investigation of IDA compared with BDE for all. UGI endoscopy for all patients, with colonoscopy reserved only for those with FIT above threshold, appeared to be the most cost-effective approach. However, in a large population, this strategy would miss the rare cases of FIT below threshold CRCs.

As stated above, these guidelines should be applied with whatever adaptations best suit the local service configuration.

Managing patients who do not return a FIT

There are no data, to our knowledge, on the utility of UGI endoscopy in patients with IDA who have declined FIT. The reasons for declining FIT are numerous and some population groups are less likely to return a FIT than others.[15] Excluding patients who have not returned a FIT may lead to health inequality.

Recommendations

For patients with newly presenting IDA:

1. FIT and coeliac serology should be performed in primary care prior to secondary care referral to guide further investigation. *Recommendation strength: strong, 95% agree/strongly agree (40 respondents*)
2. Patients with FIT above threshold should be referred from primary to secondary care under the relevant suspected cancer pathway for UGI and lower GI investigation. *Recommendation strength: strong, 97% agree/strongly agree (38 respondents*)
3. In patients undergoing colonoscopy due to a FIT above threshold, UGI endoscopy should be done on the same day, with the order of procedures determined by local consensus to optimise use of endoscopy services. *Recommendation strength: strong, 83% agree/strongly agree (37 respondents*)
4. Patients with a FIT below threshold without suspicious symptoms should undergo clinical assessment in secondary care via a relevant urgent non-cancer pathway. This can consider the appropriateness and timing of any UGI endoscopy and lower GI investigation based on patient demographics, haemoglobin and comorbidities. *Recommendation strength: strong, 82% agree/strongly agree (39 respondents*)
5. Patients not returning a FIT should be managed as per the BSG FIT guidelines, specifically:
   a. They should be encouraged to return a sample or be offered a further test if the kit has been lost or an inadequate kit has been returned. *Recommendation strength: strong, 98% agree/strongly agree (40 respondents*)
   b. If they still decline to return a kit, they should be counselled to explain their evaluation is incomplete and encouraged to complete the test. *Recommendation strength: strong, 90% agree/strongly agree (40 respondents*)
   c. If they are still unable to return a kit, urgent referral to secondary care should be considered. *Recommendation strength: strong, 92% agree/strongly agree (39 respondents*)
6. Recurrent IDA should be managed according to the existing BSG IDA guidelines. *Recommendation strength: strong, 97% agree/strongly agree (37 respondents*)
7. We recommend these guidelines are reviewed in 2 years given the rapidly changing evidence base. *Recommendation strength: strong, 98% agree/strongly agree (40 respondents*)
8. We identified the following key research questions regarding the utility of FIT in patients with IDA:
   a. The impact of FIT on CRC survival and other critical outcomes.

b. Efficacy of safety-netting strategies developed to prevent missed diagnoses.
c. Large-scale evaluation of the diagnostic yield and cost-effectiveness of UGI and lower GI endoscopic investigation including use of FIT.
d. Modelling of FIT combined with other factors or investigations to optimise risk stratification.
e. Factors influencing the return rate of FIT.
f. Yield of investigation in those not returning FIT.
g. The role of repeat FIT testing (double FIT) in patients with FIT below threshold on first test

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