

# **Quantitative Faecal Immunochemical Test (qFIT) for Patients with Colorectal Symptoms Guidance for Primary Care**

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## **Quantitative Faecal Immunochemical Test (qFIT) for Patients with Colorectal Symptoms Guidance for Primary Care January 2022**

This document is designed to provide guidance on the use of a quantitative faecal immunochemical test (qFIT) for faecal haemoglobin (f-Hb) as an adjunct to clinical acumen so that referral and investigation of patients with colorectal symptoms can be targeted to those with the highest risk of significant colorectal pathology.

Individual symptoms are poor predictors of colorectal cancer<sup>1,2</sup>. The predictive value of colorectal symptoms can be improved using qFIT<sup>3,4,5</sup>. Twenty-two percent (19-28%) of Scottish patients with colorectal symptoms, will have a f-Hb  $\geq 10\mu\text{gHb/g}$  faeces<sup>3,4,5,6</sup>. Up to 95% (84-95%) of patients referred who are then diagnosed with colorectal cancer will have a f-Hb  $\geq 10\mu\text{g Hb/g}$  faeces<sup>4,5,7,8</sup>. Referral and management triage applying qFIT in symptomatic patients, shortens time to diagnosis, is cost effective and there is emerging data that its application may result in a migration to an earlier cancer stage at diagnosis<sup>3,9</sup>. qFIT will also prevent harm through the avoidance of investigations in patients who are not likely to have significant pathology.

With the return to pre-Pandemic endoscopy activity, most Boards will have endoscopy capacity to ensure that patients with colorectal symptoms AND a f-Hb  $\geq 10\mu\text{gHb/g}$  faeces are investigated in a timely manner, along with competing demands such as bowel screening. If a qFIT is requested for asymptomatic, vague, acute or non-colorectal symptoms, 12% will still have a f-Hb  $\geq 10\mu\text{gHb/g}$  faeces, but the costs and endoscopy demand will not be sustainable, patients will continue to wait for their investigations and the diagnostic yield will be low<sup>10</sup>. There are alternative referral pathways and bowel cancer screening (if eligible) for these patients.

As an adjunct to clinical acumen, a numerical qFIT result should be available whenever possible, before a patient is referred to secondary care for investigation or management of the large bowel symptoms (Table 1). Where primary care do not have access to qFIT, secondary care will triage the referral taking into account the f-Hb result using their local pathway. Primary care clinicians are also encouraged to request a blood Hb and investigations for iron deficiency anaemia where the Hb is reported as below normal by their local laboratory<sup>c</sup>. These recommendations are to align with the current [Scottish Cancer Referral Guidelines for colorectal cancer](#)<sup>11</sup>.

Table 1: Indications for qFIT
<p>Any of the following:</p> <ul style="list-style-type: none"> <li>- A <b>persistent</b><sup>a</sup> (&gt;4week) change in bowel habit<sup>b</sup> especially to looser stool, not simple constipation</li> <li>- <b>Repeated</b> anorectal bleeding without an obvious anal cause</li> <li>- Any blood mixed with the stool</li> <li>- Abdominal pain associated with weight loss</li> <li>- Iron deficiency anaemia<sup>c</sup> (symptomatic or asymptomatic)</li> <li>- Other colorectal symptoms or family history of colorectal cancer<sup>12</sup> when referral to secondary care is considered</li> </ul>
<p>qFIT NOT required when referring patients with</p> <ul style="list-style-type: none"> <li>- A palpable abdominal mass</li> <li>- A palpable rectal mass</li> <li>- An incapacity that prevents the completion of the qFIT test, patient declined to complete qFIT (this information should be provided in the referral)</li> </ul>

<sup>a</sup> neither qFIT or Colorectal USoC referral are appropriate for an acute change in bowel habit (<4 weeks) or vague non colorectal symptoms.

<sup>b</sup> In patients <40 years old with persistent diarrhoea, a calprotectin should be considered where available.

<sup>c</sup> Iron deficiency anaemia is defined in the national pathway: a low Hb by local lab criteria AND either a ferritin <30µg/L OR a ferritin 30-100<30µg/L AND a low serum iron with a transferrin >3g/L.

1. Patients with colorectal symptoms and a f-Hb  $\geq 10\mu\text{gHb/g}$  faeces should be referred through the Urgent Suspicion of Cancer (USoC) pathway. Secondary Care Boards may triage assessment and investigation priority dependent on the f-Hb while clinical resources remain challenged. (see Secondary Care Guidance)
2. Where a patient has persistent symptoms and a f-Hb  $< 10\mu\text{gHb/g}$  faeces, a second f-Hb within 6 weeks should be considered. There is growing evidence that requesting a second FIT, in patients where the first f-Hb was  $< 10\mu\text{gHb/g}$  faeces, increases the FIT sensitivity from 84 to 97%<sup>13</sup>. It will however, also increase colonoscopy demand by up to 9.7% unless applied only in patients with persistent symptoms and ongoing clinical concern<sup>13</sup>. A secondary care referral is recommended if the second f-Hb is  $\geq 10\mu\text{gHb/g}$  faeces. If the second f-Hb is  $< 10\mu\text{gHb/g}$  faeces please see below.
3. Patients with a qFIT  $< 10\mu\text{gHb/g}$  faeces should only be referred if (please specify in the referral)
  1. Iron deficiency Anaemia
  2. symptom management support from secondary care is required eg faecal incontinence, anorectal bleeding OR
  3. you have ongoing clinical concerns that the patient has significant colorectal pathology, despite 2 f-Hb  $< 10\mu\text{gHb/g}$  faeces e.g. severe persistent symptoms such as persistent diarrhoea

4. there is a significant family history of colorectal cancer requiring screening outwith the bowel screening programme<sup>12</sup>.
4. Colorectal referrals without a qFIT, not described in Table 1 as appropriate exclusions, or with a f-Hb < 10µgHb/g faeces are likely to be triaged to Urgent or Routine clinic appointments while clinical resources remain challenged. This may delay investigations. To minimise the impact of this primary care are asked to encourage qFIT completion by patients prior to referral. Where a Primary Care clinician has an expectation that a qFIT was not or may not be completed due to socioeconomic, ethnic or other reasons, providing this information in the referral is encouraged.
5. Patients without specific colorectal symptoms or iron deficiency anaemia, should be considered for referral through alternative pathways

#### References:

- 1.Ford AC, Veldhuyzen van Zanten SJ, Rodgers CC, et al. Diagnostic utility of alarm features for colorectal cancer: systematic review and metanalysis. *Gut* 2008;57:1545-53.
- 2.Vulliamy P, McCluney S, Raouf S, et al. Trends in urgent referrals for suspected cancer: an increase in quantity, but not in quality. *Ann R Coll Surg Engl* 2016;98:564-567.
- 3.Pin-Vieto N, Tejido-Sandova C, de Vicente-Bielza. Faecal immunochemical tests safely enhance rational use of resource during the assessment of suspected symptomatic colorectal cancer in primary care: systemic review and metanalysis. *GUT* 2021;2022;71:950-960.
- 4.Mowat C, Strachan JA, McCann RK et al. Faecal haemoglobin concentration thresholds for reassurance and urgent investigation for colorectal cancer based on a faecal immunochemical test in symptomatic patients in primary care. *Ann Clin Biochem* 2021;5(3):211-219.
- 5.McSorley ST, Digby J, Clyde D et al. Yield of colorectal cancer at colonoscopy according to faecal haemoglobin concentration in symptomatic patients referred from primary care. *Colorectal Disease* 2021;23(7):1615-1621
- 6.The total number of FIT tests and the percentage of tests with a f-Hb ≥10µg Hb/g faeces in 2021 have been provided from all FIT laboratories across Scotland.
- 7.Maeda Y, Gray E, Figueroa JD. Risk of missing colorectal cancer with a COVID-adapted diagnostic pathway using quantitative faecal immunochemical testing *BJS Open* 2021;5(4): <https://doi.org/10.1093/bjsopen/zrab056>
- 8.Macdonald S, Macdonald L, Godwin J et al. The diagnostic accuracy of the faecal immunochemical test in identifying significant bowel disease in a symptomatic population. *Colorectal Disease* 2021;24(3):257-263.
9. Delson D, Ward M, Haddock R et al. Impact of faecal haemoglobin-based triage of bowel symptoms presenting to primary care on colorectal cancer mode of presentation and stage at diagnosis. *Colorectal Disease* (submitted for publication)
10. Data kindly provided by Bowel Screening Scotland.
11. Scottish Referral Guidelines for Suspected Cancer. 2019. <http://www.cancerreferral.scot.nhs.uk/lower-gastrointestinal-cancer/>
12. Monahan KJ, Bradshaw N, Dolwani S et al. Guidelines for the management of hereditary colorectal cancer from the British Society of Gastroenterology (BSG)/Association of

Coloproctology of Great Britain and Ireland (ACPGBI)/United Kingdom Cancer Genetics Group (UKCGG). Gut 2020;69:411-444.

13. Gerrard A, Maeda Y, Miller J, Gunn F, Theodoratou E, Noble C, Porteous L, Glancy S, Maclean P, Pattenden R, Dunlop M, Din F. A cohort study comparing test performance characteristics of a single faecal immunochemical test (FIT) with double FIT testing for patients referred with symptoms suspicious of colorectal cancer (submitted for publication).

\*\*The above guidance has been developed through a collaboration of over 120 primary and secondary care clinicians and service teams from across all Health Boards, patients and Scottish Government.



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