NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

DIAGNOSTICS ASSESSMENT PROGRAMME

Draft guidance

Quantitative faecal immunochemical testing to guide colorectal cancer pathway referral in primary care

The National Institute for Health and Care Excellence (NICE) is producing guidance on using faecal immunochemical tests to guide colorectal cancer pathway referral in primary care in the NHS in England. The diagnostics advisory committee has considered the evidence and the views of clinical and patient experts.

This document has been prepared for public consultation. It summarises the evidence and views that have been considered, and sets out the recommendations made by the committee. NICE invites comments from registered stakeholders, healthcare professionals and the public. This document should be read along with the evidence (the external assessment report and the 2 external assessment report addenda).

The advisory committee is interested in receiving comments on the following:

- Has all of the relevant evidence been taken into account?
- Are the summaries of clinical and cost effectiveness reasonable interpretations of the evidence?
- Are the recommendations sound, and a suitable basis for guidance to the NHS?

Equality issues

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the recommendations may need changing to meet these aims. In particular, please tell us if the recommendations:

- could have a different effect on people protected by the equality legislation than on the wider population, for example by making it more difficult in practice for a specific group to access the technology
- could have any adverse effect on people with a particular disability or disabilities.

Issue date: July 2023

Please provide any relevant information or data you have about such effects and how they could be avoided or reduced.

Note that this document is not NICE's final guidance on quantitative faecal immunochemical tests to guide colorectal cancer pathway referral in primary care. The recommendations in section 1 may change after consultation.

After consultation, the committee will meet again to consider the evidence, this document and comments from the consultation. After considering the comments, the committee will prepare its final recommendations, which will be the basis for NICE's guidance on the use of the technology in the NHS in England.

For further details, see NICE health technology evaluations: the manual.

Key dates:

Closing date for comments: 19 July 2023

Provisional second diagnostics advisory committee meeting: 27 July 2023

1 Recommendations

1.1 Quantitative faecal immunochemical testing (FIT) using HM-JACKarc or OC-Sensor is recommended to guide referral for adults with signs or symptoms suggestive of colorectal cancer (as outlined in recommendations 1.3.1 to 1.3.4 in NICE's guideline on suspected cancer, excluding those with rectal mass).

1.2 Refer adults using a suspected cancer pathway referral (for an appointment within 2 weeks) for colorectal cancer if they have a FIT result of at least 10 micrograms of haemoglobin per gram of faeces.

1.3 Referral to secondary care should not be delayed in the absence of a FIT result if there is clinical concern.

1.4 Safety netting processes should be in place for people:

- who do not return a faecal sample
- with a FIT result below 10 micrograms of haemoglobin per gram of faeces.

1.5 Clinicians should consider if people may need additional help or support to return their sample.

1.6 Further research is recommended (see the section on further research) to:

- evaluate methods for improving uptake and return of FIT, especially in groups where engagement is less likely
- determine the clinical impact of using thresholds higher than 10 micrograms of haemoglobin per gram of faeces to guide referral.

1.7 Further research is recommended (see the section on further research) on the effectiveness of:

- FOB Gold

- IDK TurbiFIT
- IDK hemoglobin ELISA
- IDK hemoglobin/haptoglobin complex ELISA
- NS-Prime
- QuikRead go iFOBT.

Why the committee made these recommendations

FIT detects small amounts of blood in faeces, which is a sign of possible colorectal cancer. Evidence shows that offering the test in primary care can identify people who are most likely to have colorectal cancer. These people can then be prioritised for referral to secondary care, while people who are less likely to have colorectal cancer can avoid unnecessary investigations. This means that colonoscopy resources can be used for people who most need them.

There is clear evidence on the diagnostic accuracy of the HM-JACKarc and OC-Sensor tests. So, the HM-JACKarc and OC-Sensor tests are recommended. The evidence is less clear for other tests and the estimates of diagnostic accuracy are more uncertain, so further research is needed.

The economic model considers multiple testing strategies for referral across a range of thresholds. All testing strategies using HM-JACKarc or OC-Sensor are cost effective compared with the recommendations in NICE's guideline on suspected cancer and NICE's diagnostics guidance on quantitative FIT to guide referral for colorectal cancer in primary care. This is because FIT allows available colonoscopy resource to be used more effectively.

The economic model suggests that using thresholds above 10 micrograms of haemoglobin per gram of faeces for referral is more cost effective than using lower thresholds. But, this is uncertain because there is not enough evidence to support some of the assumptions about safety netting for these higher thresholds. There is also concern that using a higher threshold would reduce physician confidence in the test results (because more people with cancer may be missed) and so affect clinical

decision making. Further research is needed on how using higher thresholds would affect clinical outcomes and decision making.

The economic model also considers a testing strategy using 2 faecal samples, but evidence suggests that certain groups are less likely to return any samples. So, asking for 2 samples for FIT could create inequality in access.

Social research is needed to find the best ways to improve uptake and return of FIT in groups that are less likely to return a faecal sample.

People who do not return faecal samples or have negative FIT results may still need further investigation in secondary care. It is important that GPs can refer people without a positive FIT result if they think it is necessary.

2 The diagnostic tests

Clinical need and practice

Hidden blood in faeces

2.1 Colorectal cancer may be associated with a variety of symptoms including blood in faeces. Small amounts of hidden blood in faeces (known as faecal occult blood) can show that there is bleeding from the gastrointestinal tract, potentially from malignant (cancerous) growths on the inner lining of the large intestine. Several other conditions (such as inflammatory bowel disease) may also cause blood in faeces.

2.2 Faecal immunochemical testing (FIT) detects small amounts of blood in a faecal sample using antibodies specific to human haemoglobin. A positive FIT result alone cannot confirm a diagnosis of colorectal cancer. Further assessment using colonoscopy or CT colonography is needed to confirm diagnosis.

Care pathway and clinical need

2.3 NICE's guideline on suspected cancer (NG12) and NICE's diagnostics guidance on quantitative FIT to guide referral for colorectal cancer in primary care (DG30) recommend:

- offering FIT to people presenting to primary care with 'low risk' symptoms of colorectal cancer
- immediately referring people with 'high risk' symptoms using a suspected cancer pathway referral.

2.4 People referred to secondary care typically have further investigation using colonoscopy, or sometimes CT colonography. Clinicians have observed that many people on the suspected colorectal cancer referral pathway do not have any unusual findings at colonoscopy. So, using FIT could mean that people who are unlikely to have colorectal cancer may avoid colonoscopy, and that people who are more likely to have colorectal cancer can be prioritised more effectively. Colonoscopy capacity is limited, and there are sometimes long wait times. Using FIT could reduce the number of people referred for colonoscopy, and so reduce the waiting times for people on non-urgent referral pathways.

2.5 In 2022, the Association of Coloproctology of Great Britain & Ireland (ACPGBI) and the British Society of Gastroenterology (BSG) published guidance on FIT in patients with signs or symptoms of suspected colorectal cancer. This recommended using:

- FIT for most people presenting to primary care with clinical features of colorectal cancer to guide referral for urgent investigation
- a threshold of 10 micrograms of haemoglobin per gram of faeces.

The Scottish Government also made similar recommendations. The ACPGBI and BSG guidance was endorsed by NHS England and NHS Wales, and implementation has begun in some areas.

The intervention

2.6 The intervention is quantitative FIT using specific thresholds of haemoglobin per gram of faeces to guide referral for people presenting to primary care with signs or symptoms suggestive of colorectal cancer.

2.7 The tests included in this assessment measure haemoglobin levels in faecal samples using either immunoturbidimetry or enzyme-linked immunosorbent assay (ELISA). Both methods use antibodies specific to human haemoglobin to bind to haemoglobin present in the faecal sample.

2.8 A summary of the technical specifications of the tests is presented in Table 1. This information was provided by the companies or the test's instructions for use document. The limit of detection is the smallest amount of the substance being tested for that can be reliably distinguished from an absence of the substance. The limit of quantitation is the lowest amount of the substance being tested for that can be quantified with acceptable precision. See sections 2.9 to 2.17 for further detail on the tests.

Table 1 Summary of test technical specifications

Test	Measuring range (micrograms of haemoglobin per gram of faeces)	Limit of detection (micrograms of haemoglobin per gram of faeces)	Limit of quantitation (micrograms of haemoglobin per gram of faeces)
FOB Gold	Analyser dependent	Analyser dependent	Analyser dependent
HM-JACKarc	7 to 400	2	7
IDK TurbiFIT	Analyser dependent	Analyser dependent	Analyser dependent
IDK hemoglobin ELISA	0.18 to 50	0.15	0.18
IDK hemoglobin/haptoglobin complex ELISA	0.25 to 50 micrograms of haemoglobin–haptoglobin complex per gram of faeces	0.16 micrograms of haemoglobin–haptoglobin complex per gram of faeces	0.25 micrograms of haemoglobin–haptoglobin complex per gram of faeces
NS-Prime	4 to 240	4	10
OC-Sensor PLEDIA	2 to 50,000	2	2
OC-Sensor iO	2 to 200	2	4
QuikRead go iFOBT	10 to 200	2.5	9.5

FOB Gold (Sentinel/Sysmex)

2.9 FOB Gold is an automated quantitative immunoturbidimetric FIT system. It comprises faecal sample collection tubes that collect 10 milligrams of faeces in 1.7 ml of buffer, and latex agglutination reagent. FOB Gold is compatible with Sentinel's own SENTiFIT series of analysers and analysers manufactured by 5 other companies. The performance characteristics of the assay and throughput of the test vary depending on which analyser is used. The SENTiFIT 270 can run 270 samples per hour.

HM-JACKarc (Minaris Medical/Alpha Laboratories)

2.10 HM-JACKarc is an automated quantitative immunoturbidimetric FIT system. It comprises a sample collection device, designed to measure 2 milligrams of faeces in 2 ml of buffer, latex agglutination reagent, and buffer solution. The assay is compatible with the HM-JACKarc analyser,

which can process up to 200 samples per hour, with a maximum capacity of 80 samples per run.

IDK TurbiFIT (Immundiagnostik)

2.11 IDK TurbiFIT is an immunoturbidimetric FIT assay compatible with a range of automated analysers from 16 manufacturers. The TurbiFIT kit comprises reagents, control samples and calibration samples.
IDK TurbiTUBE sample collection devices are available separately, and collect 15 milligrams of faeces in 1.5 ml of buffer. The performance characteristics and throughput of the assay vary depending on which analyser is used.

IDK hemoglobin and hemoglobin/haptoglobin complex ELISA tests (Immundiagnostik)

2.12 The IDK hemoglobin ELISA comprises:

- a microtiter plate, pre-coated with anti-haemoglobin antibodies
- buffers for washing, extraction and sample dilution
- conjugate peroxidase-labelled antibodies
- standards and controls
- tetramethylbenzidine substrate.

The test requires a 15-milligram sample of faeces. It uses an ELISA plate reader with a photometer (Dynex DS2 and DSX systems) to determine the result. The throughput of the test is dependent on which system is used to analyse the samples.

2.13 The company also produces the IDK hemoglobin/haptoglobin complex ELISA, which is similar but uses a microtiter plate pre-coated with anti-haptoglobin antibodies.

NS-Prime (Alfresa/Abbott)

2.14 NS-Prime is an automated quantitative immunoturbidimetric FIT system. It comprises a specimen collection container that collects 10 milligrams of faeces in 1.9 ml of buffer. The test is run on the NS-Prime analyser. The NS-Prime haemoglobin reagent is specific to the NS-Prime analyser and cannot be used on other platforms. The NS-Prime analyser can process 300 tests per hour with a maximum capacity of 220 samples per run.

OC-Sensor (Eiken Chemical/MAST Diagnostics)

2.15 OC-Sensor is a quantitative immunoturbidimetric FIT. It comprises faecal sample collection tubes, latex agglutination reagent and buffer. The OCAuto sampling bottles can hold 10 milligrams of faeces. The test can be run on either the OC-Sensor PLEDIA or OC-Sensor iO analysers, which differ in the number of samples they are able to process. Two other historical OC-Sensor devices (DIANA and MICRO) were also included in the assessment and assumed to be equivalent to the other OC-Sensor devices.

2.16 The OC-Sensor PLEDIA can process up to 320 samples per hour, with a maximum capacity of 200 samples per run. The OC-Sensor iO can process up to 88 samples per hour with a maximum capacity of 20 samples per run. MAST Diagnostics state that the OC Sensor iO will be replaced by the OC-Sensor CERES, which processes 90 samples per hour and has technical specifications equivalent to the OC-Sensor PLEDIA.

QuikRead go iFOBT (Aidian)

2.17 The QuikRead go is a point-of-care analyser that can be used for a number of different diagnostic tests, including the immunochemical faecal occult blood test (iFOBT) which is an immunoturbidimetric test. The kits contain reagent capsules and buffer in prefilled cuvettes. Faecal sampling sets and control materials are supplied separately. A single sample of

10 milligrams of faeces can be run at a time, and the test takes less than 2 minutes to display the result.

The comparator

Standard care according to NICE guidance

2.18 The comparator is standard care according to NG12 and DG30. This begins with clinical assessment of symptoms by a GP in primary care. DG30 recommends triaging people with 'low risk' symptoms using FIT and NG12 recommends immediately referring people with 'high risk' symptoms using a suspected cancer pathway referral.

Reference standard

2.19 The reference standards used for assessing the accuracy of FIT are colonoscopy, CT colonography or long-term follow up.

3 Committee discussion

The diagnostics advisory committee considered evidence on quantitative faecal immunochemical testing (FIT) to guide colorectal cancer pathway referral in primary care from several sources, including an external assessment report and an overview of that report. Full details are in the project documents for this guidance.

Attitudes towards FIT

3.1 Patient experts explained that people with symptoms suggestive of colorectal cancer have different attitudes towards specific ways of using FIT (such as choice of threshold). These depend on their personal approach to risk and there is no unified preference. The committee recognised that attitudes may be related to sociodemographic factors (see section 3.5) or disability. It concluded that certain groups may need tailored resources or additional clinical or carer support to enable them to use the test.

Clinical effectiveness

Populations included in the evidence base

3.2 Most of the evidence was in populations that did not exactly match the population defined in the scope. Some populations only included people with 'high' or 'low' risk symptoms (see section 2.3), and some populations were unclear. The external assessment group (EAG) explained that sensitivity analyses indicated that these differences in study populations did not have a detectable effect on the estimates of diagnostic accuracy. But there was a large amount of variability between studies. Because some tests did not have evidence in the scope population, the EAG chose to include studies from a broader population. The committee concluded that the estimates of diagnostic accuracy based on this broad population were likely representative of the accuracy in the scope population.

Diagnostic accuracy of different tests

3.3 The quantity and quality of the evidence base varied between tests. The committee noted that most studies used either HM-JACKarc (16 studies) or OC-Sensor (17 studies). For FOB Gold, 3 studies were identified, but these were small studies and the estimates of accuracy were uncertain. The committee acknowledged that FOB Gold was recommended in NICE's diagnostics guidance on quantitative FIT to guide referral for colorectal cancer in primary care (DG30). During development of DG30 the committee concluded that, although there was less data for FOB Gold than for HM-JACKarc or OC-Sensor, it was likely to perform similarly in practice. However, in this assessment the committee observed that the evidence base for HM-JACKarc and OC-Sensor was now larger and the estimates of diagnostic accuracy were more certain than during the development of DG30. But the FOB Gold evidence base remained limited. The committee also noted recent evidence that different tests produce different results from the same samples, so equivalence between brands could not be assumed. Only 1 study was identified for each of IDK

hemoglobin ELISA, IDK hemoglobin/haptoglobin complex ELISA, NS-Prime and QuikRead go. No studies were found for IDK TurbiFIT. So, the committee recommended that HM-JACKarc and OC-Sensor could be used for FIT. It recommended further research on the clinical effectiveness (including diagnostic accuracy) of FOB Gold, IDK TurbiFIT, IDK hemoglobin ELISA, IDK hemoglobin/haptoglobin complex ELISA, NS-Prime and QuikRead go.

Factors that could affect the performance of FIT

3.4 There was not enough evidence to make any recommendations on changes to how FIT should be used for people with different characteristics that could affect the performance of the test. During scoping, clinical experts suggested that factors such as age, sex, ethnicity, anaemia, or medications or conditions that change the risk of gastrointestinal bleeding, could influence the threshold that should be used to guide referral, or affect the diagnostic accuracy of the test. Some people may also have difficulty providing samples because of cognitive or physical disability. The EAG found limited evidence in these subgroups, and no conclusive evidence to determine whether FIT should be used differently in these groups. The EAG and committee members also noted that ethnicity and disability are generally poorly recorded in studies of FIT. A committee member suggested further research could be recommended for some subgroups. But, the committee noted that evidence is already developing in this area, with algorithms such as COLOFIT that incorporate multiple factors alongside a FIT result. This should address some of these uncertainties and allow these factors to be considered alongside a FIT result.

Uptake of faecal testing

3.5 The committee reviewed evidence showing differences in the rate of return of FIT between sociodemographic groups based on age, sex, ethnicity and socioeconomic status. The EAG highlighted publications that

proposed strategies to help encourage test return in these groups, such as following up after a sample is not returned, providing information in multiple languages, or providing counselling and education services. But, it was not clear which methods would be the most effective, and different methods may be more appropriate for different groups. Therefore, the committee recommended social research to determine the best way to improve return of FIT, especially from groups in which engagement is less likely.

3.6 A patient expert suggested that healthcare professional involvement is important to drive engagement with testing. GP experts noted that the ability of primary care healthcare professionals to provide support is limited by workload. They noted that support would be hardest to implement in the most underserved areas where engagement with testing is likely to be lower. Guidance or educational resources to help improve test uptake would be helpful to minimise geographical differences in care.

Dual FIT

3.7 Dual FIT was considered as a testing strategy. This uses 2 separate faecal samples, usually collected within 2 weeks of each other, and a positive result from either sample would indicate a referral to secondary care. The committee considered evidence from the EAG's clinical-effectiveness review that found that dual FIT generally improved sensitivity but decreased specificity compared with single FIT at the same threshold. Some committee members suggested that a dual FIT strategy could reduce the risk of missing people with cancer and reported positive experiences with dual FIT in their local practice. Clinical experts noted that FIT results can vary between bowel movements because bleeding can be intermittent. However, the committee recalled that certain groups are less likely to return a sample. It was concerned that asking for 2 samples could particularly affect these groups (see section 3.5). This could increase inequality in access to healthcare. Experts also highlighted that there

could be additional implementation issues if twice as many sample kits were needed, such as increased reliance on mail services or GP capacity.

Inflammatory bowel disease

3.8 Several conditions other than colorectal cancer can cause gastrointestinal symptoms and blood in faeces, including inflammatory bowel disease (IBD). IBD (Crohn's disease or ulcerative colitis) is also usually diagnosed in secondary care through investigations such as colonoscopy. The EAG's clinical review found that the estimates of the diagnostic accuracy of FIT for IBD were more uncertain than those for colorectal cancer, and the sensitivity was generally lower. However, clinical experts did not think that introducing FIT would have a substantial effect on people who have IBD, because GPs are likely to order a calprotectin test at the same time as FIT, which is a more accurate test for IBD (see NICE's guidance on faecal calprotectin diagnostic tests for inflammatory diseases of the bowel). Because the focus of this assessment was using FIT to guide referral pathways for colorectal cancer, other methods of detecting IBD were not considered.

Cost effectiveness

Cost effectiveness of FIT

3.9 The committee agreed that using FIT for all people with signs or symptoms suggestive of colorectal cancer (excluding people with rectal mass, see recommendation 1.1) was likely to be cost effective compared with using FIT as outlined in NICE guidance (see section 2.3). The economic model estimated that all testing strategies using HM-JACKarc or OC-Sensor were cost effective. This was because costs were saved by reducing the overall number of colonoscopies, but there was also a very small loss of health resulting from people who had false negatives from their FIT test. The EAG stated that the QALY loss was equivalent to less than 1 day of full health for all people in the cohort. The committee noted

that the model predicted that reducing the number of colonoscopy referrals would likely reduce secondary care waiting times for most people. However, the average time to diagnosis was increased overall because some people with false negative FIT results would have very long waiting times.

Assumptions in the economic model

3.10 The committee agreed that the overall conclusions of the economic model were reasonable. However, there was uncertainty in specific cost-effectiveness estimates because many inputs were based on clinical expert opinion when evidence was not available. Some committee members thought that the times to diagnosis used in the base case were pessimistic. But a scenario analysis that used shorter times to diagnosis resulted in a more favourable cost-effectiveness estimate for FIT than in the base case. Primary care experts thought that the number of additional GP appointments for people in primary care was too low, but not so low that the overall conclusion of cost effectiveness would be changed. The proportion of people who would be referred to secondary care despite a negative FIT result was based on clinical experts' experience with existing guidance (see sections 2.3 and 2.5), which recommends a threshold of 10 micrograms of haemoglobin per gram of faeces. Clinical experts thought that using a higher threshold would reduce physician confidence in the test. As a result, the proportion of people being referred without a positive FIT result would be higher than modelled. Therefore, the cost-effectiveness results at higher thresholds were more uncertain.

Testing strategies

3.11 The committee decided that testing a single faecal sample and using a single threshold to inform referral decisions was the best strategy. It noted that the economic model predicted that using dual FIT would be slightly less cost effective than single FIT, but would also reduce the QALY loss from false negatives. However, it recalled that dual FIT could

disadvantage groups that are less likely to return samples, and introduce additional implementation issues (see section 3.5 and section 3.7). The committee concluded that drawbacks of dual FIT were likely to outweigh the potential benefits of increased sensitivity. The committee noted that using 2 thresholds appeared slightly less cost effective than using 1 threshold. Clinical experts also advised that using 2 thresholds would complicate referral decisions and make it harder to understand what the results mean in practice, which may reduce cost effectiveness more than predicted by the model.

Choice of threshold

3.12 The committee concluded that a threshold of 10 micrograms of haemoglobin per gram of faeces should be used to guide referral decisions. It acknowledged that the economic model suggested a threshold of 100 micrograms of haemoglobin per gram of faeces would be most cost effective. However, the committee recalled that the cost-effectiveness estimates at higher thresholds were more uncertain (see section 3.10). Thresholds below 10 micrograms of haemoglobin per gram of faeces were not considered. This was because they were less cost effective and approached the limits of quantitation for many of the tests, which may reduce the reliability of results (see section 2.8).

3.13 Economic experts highlighted that cost-effectiveness estimates improved the most between lower thresholds. They suggested that moving to a threshold of 20 micrograms of haemoglobin per gram of faeces could produce a gain in cost effectiveness without losing physician confidence. Clinical experts disagreed that physicians would accept a higher threshold because of the risk of false negative results, but conceded that there was no evidence on how the choice of threshold affects decision making. So, the committee recommended further research on the clinical impact of using different thresholds to guide referral to understand whether referrals would decrease by a similar proportion as predicted by the model.

Implementation of safety netting

3.14 The committee discussed safety netting for people with negative FIT results and ongoing symptoms. The committee stated that clear guidance will be needed to ensure that safety netting is implemented consistently and effectively, and noted that NICE's guideline on suspected cancer (NG12) includes guidance on this. Clinical experts highlighted that the exact form of safety netting available is likely to differ across the UK. The implementation of safety netting used in the model for people with negative FIT results or who did not return a test was based on clinical advice. Options included:

- referral to secondary care because of ongoing clinical concern, either through suspected cancer or non-urgent pathways
- management in primary care ('watch and wait')
- offering another FIT test.

A committee member noted that FIT-negative pathways based in secondary care are also available in some places, as described in the 2022 NHS England letter endorsing FIT.

3.15 Clinical experts emphasised that having a positive FIT result should not be an absolute requirement for referral to secondary care. This is because it is possible to have a false negative result and some people may not be able to complete a test, either because of physical or cognitive disability or because of barriers to test uptake. So, the option to refer should always be available should GPs think it is needed.

4 Recommendations for further research

4.1 Further research is recommended to assess the effectiveness (including diagnostic accuracy, failure rate and test uptake) of:

- FOB Gold

- IDK TurbiFIT
- IDK hemoglobin ELISA
- IDK hemoglobin/haptoglobin complex ELISA
- NS-Prime
- QuikRead go iFOBT.

4.2 Further research is recommended on how using thresholds higher than 10 micrograms of haemoglobin per gram of faeces would affect decision making and clinical outcomes.

4.3 Social research is recommended to evaluate methods to improve uptake and return of faecal immunochemical testing, especially in groups in which engagement is less likely such as:

- males
- people from ethnic minorities
- people with lower socioeconomic status
- people with cognitive disabilities or mental health conditions.

5 Implementation

NICE intends to develop tools, in association with relevant stakeholders, to help organisations put this guidance into practice.

In addition NICE will support this guidance through a range of activities to promote the recommendations for further research. The research proposed will be considered by the NICE Medical Technologies Evaluation Programme research facilitation team for developing specific research study protocols as appropriate. NICE will also incorporate the research recommendations in section 4 into its guidance research recommendations database and highlight these recommendations to public research bodies.

6 Review

NICE will regularly monitor its published technology guidance to check for any new evidence or information that could affect the recommendations. Guidance will not have a fixed review date.

Neil Hawkins

Vice-chair, diagnostics advisory committee

July 2023

7 Diagnostics advisory committee members and NICE project team

Committee members

This topic was considered by the diagnostics advisory committee, which is a standing advisory committee of NICE.

Committee members are asked to declare any interests in the test to be evaluated. If it is considered there is a conflict of interest, the member is excluded from participating further in that evaluation.

The minutes of each committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

Additional specialist committee members took part in the discussions for this topic:

Specialist committee members

Caroline Addison

Consultant clinical scientist, Queen Elizabeth's Hospital, Gateshead

Mary Craig

Macmillan GP cancer lead, Aneurin Bevan University Health Board

Farhat Din

Professor and honorary consultant colorectal surgeon, University of Edinburgh and Western General Hospital

Michael Gray

Specialist lay committee member

John Morris

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Brian Nicholson

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Edward Seward

Consultant gastroenterologist, University College London Hospitals

Baljit Singh

Consultant colorectal surgeon and honorary associate professor, University Hospitals Leicester

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NICE project team

Each diagnostics evaluation is assigned to a team consisting of a technical analyst (who acts as the topic lead), a technical adviser and a project manager.

Jacob Grant

Topic lead

Judith Shore

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ISBN: