Faecal Immunochemical Testing for Symptomatic Patients

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INTRODUCTION

Alpha Laboratories has been at the forefront of faecal testing in the UK for 20 years. This was initially as the market leader for guaiac-based faecal occult blood testing in hospital laboratories.

Tender wins for bowel screening in all four UK countries followed this, as each launched its own screening programme, assessing the average risk in asymptomatic populations.

Continuing to provide leading edge products, Alpha Laboratories has been awarded the first contract for quantitative FIT as the front line test in the Scottish Bowel Screening Programme. This will employ the Kyowa Medex HM-JACKarc system. England will also be moving to a quantitative FIT method in the NHS Bowel Cancer Screening Programme in the near future.

The use of FIT in the assessment of the symptomatic is changing too, as more publications have demonstrated that the use of quantitative FIT as a “rule-out” test has benefits to clinicians, laboratories and patients.

This “Focus on FIT” publication summarises some recent progress and current thinking on the application of FIT for symptomatic patients, following the publication of NICE Diagnostic Guidance DG30.

The long awaited NICE Guidance DG30 on “Quantitative faecal immunochemical tests (FIT) to guide referral for colorectal cancer in primary care” was published in July 2017. Release of this document has now helped to address the debate raised by the NG12 cancer referral guidelines published in June 2015. NG12 recommended Faecal Occult Blood Tests (FOBT) as an aid to the two week wait referral pathway for patients with suspected colorectal cancer from primary care, and where a definitive diagnosis was unclear.

Controversy with the NG12 guidelines arose due to the use of the terminology of FOBT, since this method had been withdrawn from the patient pathway in the 2005 guidelines. Although a generic terminology, the majority of FOBT technology at that time was primarily guaiac based which was considered to have poor specificity and sensitivity for use in identification of colorectal cancers in symptomatic patients.

The new guidance (DG30) focuses on the peer reviewed data for the more sensitive and specific Faecal Immunochemical Test (FIT) technology that is now available. Using the available data, the Diagnostics Advisory Committee has created an economic model for each of the FIT methods under review. The recommendations from the review, are that quantitative FIT should be used in primary care to guide referral for suspected colorectal cancer in people without rectal bleeding, who have unexplained symptoms, but who do not meet the criteria for a suspected cancer pathway referral outlined in the NICE NG12 guideline (see Table 1).

The guidance also recognises that FIT detects a symptom of colorectal cancer (haemoglobin) that could also be associated with a range of other conditions. Data from studies reporting diagnostic accuracy for multiple target conditions in the same population, suggested that up to 28.9% of people with a false-positive FIT result for colorectal cancer, did have some form of serious bowel pathology, such as inflammatory bowel disease or high-risk adenoma. The guidance concludes that it is plausible that the number of false-positive results that occur when using the tests to rule out colorectal cancer, could be partially offset by detecting other treatable bowel pathology.

The guidance suggests that commissioning groups that implement the use of FIT in their patient referral pathway should be auditing their outcomes to include:

- The number of patients referred under the 2 week wait for suspected cancer pathway
- The number of patients diagnosed with colorectal cancer
- The resultant number of colonoscopies and CT colonographies requested

### Table 1. Criteria for a suspected cancer pathway referral

<table>
<thead>
<tr>
<th>Patient group</th>
<th>June 2015 NICE NG12</th>
<th>2005 NICE Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 50 years and over with unexplained abdominal pain</td>
<td>2WW if +ve FOB</td>
<td>No recommendation</td>
</tr>
<tr>
<td>Aged 50 years and over with unexplained weight loss</td>
<td>2WW if +ve FOB</td>
<td>No recommendation</td>
</tr>
<tr>
<td>Aged under 60 years with changes in bowel habit</td>
<td>2WW if +ve FOB</td>
<td>No recommendation</td>
</tr>
<tr>
<td>Aged under 60 years with iron deficiency anaemia</td>
<td>2WW if +ve FOB</td>
<td>2WW for unexplained iron deficiency anaemia using M/F specific Ref cut off</td>
</tr>
<tr>
<td>Aged 60 years and over with anaemia even in absence of iron deficiency</td>
<td>2WW if +ve FOB</td>
<td>2WW for cases of iron deficiency anaemia only (as above)</td>
</tr>
</tbody>
</table>

NICE concludes that a cut-off of 10 µg Hb/g faeces should be used to define the threshold for ruling out colorectal cancer.
Additionally, there is also the request for further research into whether faecal haemoglobin levels are influenced by age, gender and medicines that increase the risk of gastrointestinal bleeding, and whether a risk score could be used to refine the use of FIT in primary care.

Despite DG30 addressing the clinical advantages and need for implementing FIT, it does not deal with the practicalities of how commissioning groups may implement it.

The core benefit of FIT is the ability to detect low levels of faecal haemoglobin (f-Hb). The test is very specific for the intact Hb molecule, unlike the original Guaiac test, which detected the haem moiety. Originally requests for FOBT required a stool sample to be provided by the patient in the blue topped tubes, with the faeces being processed by laboratory staff to generate the result.

However, haemoglobin is an unstable molecule, more so in faeces, an environment where digestive enzymes and variable gut flora can accelerate molecular destruction. Additionally the transport time can be variable and the sample can be subject to differing ambient temperatures providing further uncertainty over the rate of f-Hb degradation.

The new FIT technologies have specific collection devices which overcome such sample integrity challenges, by buffering and stabilising any haemoglobin present in the fresh stool sample. In particular, the HM-JACKarc (Alpha Laboratories, UK) device can protect the f-Hb for up to 120 days, if the sample can be refrigerated or 14 days at ambient temperature.

In the NICE DG30 evidence review, HM-JACKarc was reported with 100% sensitivity, 76.6% specificity, 6.1% positive predictive value and 100% negative predictive value for colorectal cancer. [FIT] assays were also cost effective when compared with no triage, with the HM-JACKarc dominating (that is, it was more effective and less expensive).

However, this benefit is only possible from fresh faeces. Thus the ideal solution is to get the patient to collect their sample directly into the specific collection device, to retain as much of the f-Hb from the fresh sample.

Having concluded that the best sample is obtained by getting the patient to collect it directly into the sample device, the next challenge is to provide the best logistics for both the delivery and return of the sample device. This is especially important for patients in rural areas with transportation limitations.

Some sites in Scotland have been running FIT in primary care for over a year now.

Due to the geography of the areas covered, different laboratories use various methods for distribution and return of the sample. One site uses postal services for delivery to the patient and return of the collection device to the lab. Another produces a patient pack which is provided in the GP practice. The patient then returns to the practice with the sample which is collected for onward transportation to the laboratory.

For those looking to implement FIT as a new test service, it is important therefore to communicate effectively with all stakeholders, so that considerations can be made on sample pathway and its ultimate impact on the patient referral process.

To find out more about faecal immunochemical testing in the patient pathway, including case studies from hospitals already implementing the service or for information on the HM-JACKarc FIT system please visit www.faecal-immunochemical-test.co.uk
Alpha Laboratories’ experience can support you in establishing a FIT service by providing education, product demonstrations and logistics solutions.
Please contact us at digestivedx@alphalabs.co.uk

Find out more at www.faecal-immunochemical-test.co.uk

- Blood in your stool
- Changes in bowel habits
- Severe abdominal pain
- Unintentional weight loss
- Unexplained tiredness
The NICE FIT study was launched through Croydon University Hospital in early 2017, as a diagnostic accuracy study for faecal immunochemical testing (FIT). Following the introduction of NICE DG301 the study has grown significantly in size. After the first pilot, the study, based initially at Croydon University Hospital, was expanded under the direction of chief investigator Mr Muti Abulafi and co-investigator, Mr Nigel D’Souza. Working with Royal Marsden Partners (RM Partners) the aim is for multi-centre recruitment throughout England. As one of the largest studies conducted on FIT, Alpha Laboratories’ Senior Product Manager, Matthew Davis, spoke with Mr D’Souza to find out about the latest progress with the NICE FIT Study.

Now the study is expanding, what helped you to obtain new funding?
A combination of factors; first of all, early diagnosis is key to the ‘Five Year Forward View’ for early cancer diagnosis. This makes FIT very attractive as a simple dipstick test to rule out bowel cancer, instead of putting all these patients onto the two week wait pathway.

The Sustainability and Transformation Plan (STP4) for saving money was also a major benefit factor: comparing a £9.00 FIT to a £375 colonoscopy1 makes the argument easier to emphasize. We submitted the bid on behalf of RM Partners and with their support, they submitted the bid as part of the STP funding.

So RM Partners did the pitch to NHS England?
Yes – we drew up the basic cost savings, projections, and methodology for the project. We couldn’t have done it without their support.

Dr Michelle Chen and Professor Stan Kaye from the R&D team have been instrumental in supporting our initial roll-out and subsequent expansion.

The study has been running some months, and now you’ve recruited additional hospitals: how is that progressing?
When we first designed our study, we weren’t sure we would achieve NIHR badge approval. The initial model involved recruiting patients directly from RM Partner sites in London, using our own research nurses, who would be hired with funding. However, when we were awarded badge approval onto the NIHR portfolio, Dr Michelle Chen recommended recruitment via a colorectal nurse (CRN), to facilitate recruitment to more sites both in and outside of London.

As a portfolio study, hospitals are awarded funding for each patient recruited to the study. So with the high volume this was an attractive proposition for hospitals.

By recruiting patients from outside London, has the thrust of the study changed at all?
Our main goal is (and will remain) to recruit 5,500 patients from London to prove the diagnostic accuracy of FIT in diverse populations.

Logistically, how does this work with the London and non-London sites?
For London sites, the hospital sends the patient information to us, and we arrange to have the FIT kit sent to the patient. Outside London the hospitals do the recruitment work themselves. The samples, regardless of where they were sent from, are all returned to Sally’s team at the Guildford Hub, and the data generated is sent straight back to us at Croydon.

Why is it so important for the data to come straight to you?
It’s very important that the data come back to us. When examining a colonoscopy report, it can be challenging for a non-clinician to accurately classify the findings. During the pilot, we noticed many coding errors on the system, where findings had been incorrectly coded on the system.

To ensure the data is as accurate as possible, the findings are logged onto our bespoke system by a member of the local CRN.

This is the main thrust of the study. Portfolio adoption enables additional (non-London) recruitment, because NHS England wants as much data on FIT as possible.

Fortunately, our study methodology for London recruitment can be scaled to recruit across sites throughout England. The work was within our scope, so we could support the additional roll out. The local hospitals, R&D departments and CRNs will play a larger role in recruitment, but ultimately we remain responsible for the data management and quality assurance.
One of our main questions is, what’s limiting the uptake? Each site is different, some patients are seen in clinics, and some are triaged straight to test based on the referral letter, so there isn’t a one-size-fits-all approach.

In Croydon, a triage nurse calls every patient referred for colonoscopy. In the conversation with the patient, the nurse informs them about the NICE FIT Study, and we’ve found this is a good way of introducing them to it.

There is a lot of evidence from screening programmes showing that London has a significantly lower uptake than the national average – could this be a factor?

I remember calling our first patient, and the call was not well received! The main question the patient asked was, “what’s in it for me?” At the time, my response could only be, “well… nothing directly!” I think this may be one of the key problems for the recruitment of patients – there is no immediate, obvious benefit to doing it as they are still referred for colonoscopy, and the FIT result does not affect their management.

Do you now explain any potential future benefits to FIT when talking to patients?

We do try to emphasize that based on the study data we collect, we could in the future improve the process for patients being referred with GI symptoms.

Mr Abulafi was keen to develop a patient pathway tailored specifically for London. Does this come into your study?

Not quite. We’re mainly looking at the diagnostic accuracy of FIT, and the sub-studies will work on ways to improve diagnostic accuracy. The positioning of FIT in primary or secondary care is being examined in other studies and service improvement projects in England and Scotland.

Other sites, such as Nottingham and Leicester, have very different pathways and decision making processes. What are your thoughts on the development of a pathway?

Hopefully, once the process is complete, we can combine information on diagnostic accuracy and decision making pathways from all the studies to construct an evidence based patient pathway. We are providing the diagnostic accuracy portion of the evidence base.

Roughly when do you think you’ll have sufficient data for a summary on the project?

The recruitment rate continues to increase so it is adaptive. With our aim to recruit the 5,500 London patients, and the additional national patients, I believe we should have some initial data by December 2018.

I think there would be an interesting comparison between those inside London and those outside! Another potential study arm?

Yes definitely, we’ve already seen differences in recruitment method and patient response, so yes, I think it would be valuable information.

What happens with the data you collect?

We will conduct a primary data analysis based on, “F-Hb depending on, age, sex, ethnicity and deprivation, and also NICE criteria on patients referral. We will then pool data with NHS England, to create a database for the safe utilisation of FIT.

It has been intimated by some key opinion leaders (WAGE) that NICE was ‘wrong’ with DG30 and that FIT should not be used solely for the ‘low-risk’ patients, but all patients with GI symptoms. What are your thoughts on this?

I have grounds to agree and disagree. Firstly, I do not believe these patients are necessarily low risk based on the data we’ve collected. NICE are encouraging this process using the terms ‘low-risk’ and ‘high-risk’ for cancer. The category divisions may not be black and white—GPs may not always have time to assess for all symptoms prior to referral, so the high- and low-risk classification may be inappropriate.

Previous work by our team has found that “low-risk” symptoms may have a higher rate of cancer than that which has been predicted by NICE.

Secondly, I do not believe there is sufficient evidence upon which the recommendations are based. We will shortly be publishing our own analysis of DG30. I worry still about the test being used without full understanding of the limitations and the safety netting requirements, and resulting in missed cancers. This could result in this great test being pulled off the table before it’s had chance to be used.

Ultimately, we will hopefully use FIT for all symptomatic patients, however I think there should be a larger evidence base for the recommendations and so work is still to be done.

The NICE FIT Study has a dedicated website which provides further information: www.nicefitstudy.com

This information is for both clinicians and patients and provides ongoing updates on participating sites as well as recruitment numbers.

Find out more at www.faecal-immunochemical-test.co.uk
Focus on FIT

What the Experts Say

In November 2017 Alpha Laboratories held an educational Digestive Diseases Day in Birmingham. Experts in the field discussed recent advances in clinical diagnostics for gastroenterology and FIT was a key focus area. Here are summaries of the presentations from three key opinion leaders. You can watch videos of the complete talks at www.faecal-immunochemical-test.co.uk/events

FIT in the Symptomatic Patient

NICE DG30 Guidance

Sally C Benton FRCPath, Consultant Biochemist, Surrey Pathology Services, Royal Surrey County Hospital, Director, Bowel Cancer Screening Hub – South of England

Sally Benton is co-chair of the World Endoscopy Organization Expert Working Group on Faecal Immunochemical Tests for Colorectal Cancer Screening. She is also Chair of an International Federation of Clinical Chemistry working group to standardise and harmonise FIT testing.

As such she is a leading authority on FIT and puts into context the significance of NICE DG30 in relation to the pathology of colorectal cancer (CRC) and the struggles faced by the NHS in terms of endoscopy resource.

“The NICE Guidance makes recommendations regarding; the science of the test, the specific analysers, cut-off values, and the actions to be taken by those involved in the wider patient pathway.

The recommendations from NICE are better understood when seen as a comparison with the current patient pathways.

Data on the negative predictive values of FIT emphasises the rationale behind why the test should be utilised as a ‘rule-out’ test for CRC rather than ‘rule-in’.

During evidence based studies, it was noted that despite some cancers being missed when the cut-off was 10 µg Hb / g of faeces, they would have been detected had the cut-off been 7 µg Hb / g.

This poses an interesting differentiation between symptomatic and screening requirements.

More work is required prior to widespread roll-out and it is important to address areas for continuing development, for both the test and patient pathway.

From a clinician’s standpoint, the issues may include reporting data (using the limit of quantitation in place of ‘undetectable’), the point in the pathway that the test should be requested, and the safety-netting of negative test results. Laboratories also have reservations regarding FIT such as pre-analytical variation, operationalisation of the test, EQA schemes challenges, and test standardisation.

Sally also discusses, the subject of ‘essentialism versus consequentialism’.

‘Essentialism is, “the theory that the value of a medical test should be judged by the ‘trueness’ of its results”, whereas consequentialism focuses on, “the theory that the value of a medical test should be judged on the value of its consequences”.

In the laboratory, it is important to value the trueness and the accuracy of a method, however, the clinician is more concerned whether the result is fundamentally correct. FIT is well positioned for essentialism; the science is robust, deficiencies are understood, and there remains a continuous drive for improvement. FIT also has a place with regards to consequentialism, with evidence to show patients are being correctly categorised after their FIT tests.

Overall, this presentation addresses some key advantages, and areas for continuous improvement in the NICE DG30 guidance, and is valuable to all those wishing to change, or add to, their service offerings in line with NICE recommendations.
With FIT testing being introduced into primary care, there are many questions to be discussed before widespread implementation. Professor Ramesh Arasaradnam, consultant gastroenterologist at University Hospitals at Coventry and Warwickshire, presents his data on how FIT will fit into primary care, and the advantages it could bring.

The data presented was provided by the study conducted at Warwick University Hospital. This included symptomatic patients presenting in primary care, that were suspected of having cancer, and assigned to the two-week-wait (2WW) pathway.

The value of the 2WW is discussed in the presentation and importantly notes that only around 7% of cancers are detected in this pathway.

The 2WW pathway itself causes a significant strain on endoscopy resource.

This study also compares the use of a faecal calprotectin test alongside FIT. In addition it looks at the patient response rate; by including a novel sample collection device (Fe-Col), the pre-analytical variability can be reduced, and the return rate was around 67%, which is higher than in other similar studies.

The diagnostic utility of the FIT in this study provides a sensitivity value of 84%, negative predictive value of 99%, and specificity of 82%. The negative predictive value of FIT is the argument used when deciding whether FIT should be a rule-in or –out test. In conjunction with this, it was determined that adding a faecal calprotectin test, the NPV does not change, and the expense of the additional biomarker test, makes the pathway significantly less attractive to funding bodies.

The study uses a cut off value of 7 µg of Hb per g of faeces. Using this level, FIT was found to miss fewer cancers than the NG12 pathway. Of the four cancers missed in this FIT study, two of the patients presented with weight loss, and had a palpable abdominal mass.

Based on this clinical suspicion, the patients would have been triaged immediately to the 2WW, and are unlikely to have conducted a FIT. Of the four missed cancers, none of them received curative therapy. The cancers were all very advanced, and as a result, these specific cancers, at the very late stage, do not often bleed.

Dr Arasaradnam then discusses his views on the NG12 guidance, and references a paper, produced by Quyn et al. regarding their research on NICE NG12 and the comparison with FIT.

Lastly, the talk concludes with a preview of the recommended colorectal FIT pathway – covering both primary and secondary care. This incorporates the 2WW and the possible application of FIT in the pathway – at the transition stage between primary and secondary care.

Reference

continued...
FIT Negative Follow-Up
Safety-netting patients with a low faecal haemoglobin concentration and modifying the current patient pathway to improve patient care.

Dr. James Turvill, Consultant Gastroenterologist, York Teaching Hospital NHS Foundation Trust

Dr. James Turvill is a screening endoscopist within the Bowel Cancer Screening Programme and has an interest in inflammatory bowel disease and gastrointestinal cancer. Since 2008 he has developed a research interest in the use of biomarkers to facilitate the diagnosis and monitoring of gastrointestinal disease. Currently he is working with Y&H AHSN in the implementation of a faecal calprotectin (fCAL) care pathway to support NICE DG11 and with the Y&H Cancer Alliance in the introduction of faecal immunochemical testing (FIT) in patients with suspected colorectal cancer.

Here Dr. Turvill summarises his presentation made at the Digestive Diseases Day, where he discussed his study at York Hospital and the importance of negative FIT follow-up for patients.

BACKGROUND
"NICE guidance is about finding people with cancer so that we can make a difference. FIT should be seen as a technology designed to facilitate this process. So I am a little unsettled about the concept of using FIT as a test to ‘rule-out’ colorectal cancer (CRC), though this is what it is good at. Instead we need to use it to ‘rule-in’ patients and so find CRC early. And here lies the challenge.

INTRODUCTION
In thinking about FIT negative follow up we need to understand what is currently happening in primary and secondary care and then, what a FIT positive result will mean for the future.

Then for the FIT negative patient we need to consider consequentialism over essentialism.

If you look at a cohort of patients referred from primary care fulfilling NICE NG12, that is at high risk of CRC, around two-thirds of patients will have ‘functional disorders’ (predominantly the irritable bowel syndrome (IBS), but also benign anal canal bleeding and iron deficient anaemia of unknown cause).

Currently it is this group of patients that secondary care clinicians are focussing on since these are judged to increase healthcare costs by the time constrained consumption of resource in achieving a diagnosis.

Then 4% of patients will have CRC and a further 4% will have significant polyps (those 10mm or larger). Then there will be a complex, non-malignant group of patients, making up 12%, generally termed ‘organic enteric disease’ that will need secondary care intervention.

Then extrapolate our data to a population of 1000 patients and apply ‘detectable’ haemoglobin as the FIT cut-off value you get 290 positive, and 710 negative results. You will pick up almost all, but importantly not all, CRC (I am reconciled to the fact that regardless of what the cut-off is, some, but very little CRC will be missed).
Using this FIT cut-off most ‘IBS’ patients and those with diminutive polyps will be spared, initially at least, investigation. But FIT will miss half of those with organic enteric disease, over half of those with significant polyps and, importantly, half of those with other non-enteric cancers.

So clearly FIT is a game changer.

But not perfect.

If you apply FIT using 10 µg/g cut off [Figure 1], the proportion of missed CRC will double. But, the numbers will still be very small.

Three patients in 1000 will be missed who would have been picked up using FIT for ‘detectable’ haemoglobin. But you will have reduced the number of FIT positive patients with IBS to a third. The total number of patients with a positive FIT will now be 140 patients.

This then allows you to start to use healthcare resource much more efficiently. You have the starting potential to spare 860 patient investigations from the original 1000 patient cohort. That resource can be directed at other patient groups, such as those fulfilling NICE DG30.

Our findings suggest that using the FIT ≥10µg/g cut off you get the optimal sensitivity (82%) and specificity (88%), with a high NPV (99%) and an acceptable PPV (27%).

FIT NEGATIVE PATIENTS

So I have made the presumption that FIT negative care begins when a high risk patient has one FIT <10 µg/g.

In our putative population of 1000 patients we now have 860 such patients and within this group <1% will have CRC, 3% will have significant polyps and 3% non-CRC cancer. A significant number of patients with organic enteric disease will remain, but over 90% will have ‘IBS’.

What do we do next? What if you repeat the FIT or add in a fCAL?

If you repeat the FIT and you are looking solely for CRC you will want either of, rather than both, of the two FIT to be positive (to ‘rule in’ not ‘rule out’). In so doing we found that you could marginally increase the sensitivity and specificity of FIT, but not significantly.

Furthermore the repeat FIT requires additional cost, time and may reduce patient compliance.

We conclude that in symptomatic patients at high risk, a repeat FIT prior to referral would fail to detect CRC in those who were initially FIT negative. Perhaps their biology is different. Two FITs may prove useful for screening (it may offer cost savings) but not in the work up of symptomatic patients.

Adding fCAL gives no diagnostic advantage because it reduces the PPV.

Can you identify the FIT negative patients with CRC if you apply particular patient symptomatology?

The short answer here is no. Symptoms are no less specific in FIT negative patients than they are in the unselected cohort.

Neither are we currently able to improve the sensitivity and specificity of FIT based on symptomatology (although this may come). Currently for example FIT cannot be applied in the low risk population (DG30) where there is rectal bleeding. However we found no difference in those presenting with or without rectal bleeding.

Managing FIT negative patients for the future

In thinking about the negative FIT we need to leave the technology behind and return to the patient. Perhaps we need to look again at NICE CG27, the NICE guidance that pre-dated NG12.

Here it states that ‘in patients with equivocal symptoms who are not unduly anxious, it is reasonable to use a period of ‘treat, watch and wait’ as a method of management’. Quite what this will mean in practice is as yet uncertain.

But the majority of patients will have functional disease and some will settle with expectant management. As many as 90% of younger, low risk patients will respond to local supportive measures but it is uncertain how many will do so in this population. Perhaps 50%, optimistically.

So the key question is whether we will give this disparate group of patients, time to declare themselves. Will we treat them expectantly or will they all be sent for abdominal-pelvic CT scans to find the non-enteric cancer in a newly defined suspected cancer pathway?

Surely for FIT to be of any health economic benefit the clinician must be able both to apply clinical judgment if suspicious and so refer into a two week wait pathway, even if FIT negative, but also to treat symptomatically and review locally if judged appropriate.

In this way patient care is central and FIT supports the efficient use of resource.

And who is going to carry that risk?

Will primary care carry this cohort of FIT negative patients in whom it is known that there is missed cancer and in whom referral would otherwise have taken place if NICE NG12 were applied?

Should GPs refer all patients anyway, FIT positive or negative alike, but the former urgently and the latter routinely? Or perhaps GPs should both retain clinical suspicion and initial management decision; treating FIT negative patients symptomatically without automatic referral. Some would be referred urgently and others routinely should they remain symptomatic or early if suspicion was high. Would CT requesting from primary care become the norm?

In my mind what is needed is for clinical suspicion to help safety-net the patient and this would be my preferred option.

Find out more at www.faecal-immunochemical-test.co.uk
Focus on FIT

When thinking this through it is important to recognise the strength of primary care as ‘the good gatekeeper’ while secondary care is the obligate investigator. So this measured, safety netted, clinical risk assessment of FIT negative patients should lie with primary care.

THE FUTURE?

Currently the role of FIT both to support DG30 and most particularly NG12 is uncertain. A great deal of work is going on at the moment and we will have a much clearer idea soon.

I have it in mind that a pathway will develop something like the diagram below (Figure 2). The future pathway will start with patients with lower gastrointestinal symptoms in the broadest sense (though there may be a number of exclusions such as rectal mass/iron deficient anaemia and possibly fresh rectal bleeding in the young).

We know that the specificity of FIT is lower in younger patients so you have to factor in a pragmatic age cut-off where fCAL may become a more useful test. I have chosen 50 years. All patients over 50 years with lower gastrointestinal symptoms, where there is diagnostic uncertainty, irrespective of whether they currently do not fulfil NICE NG12, will have a FIT. I do not think rectal bleeding will prevent the use of FIT.

GPs will also include patients younger than 50 years where CRC is suspected. Because FIT is such a good diagnostic I think it acceptable to widen the net and not to be proscriptive.

Those who are FIT positive will be referred into the ‘two week wait’ pathway.

Those under 50 years and in whom CRC is not suspected should enter the fCAL pathway1.

For those who are FIT negative, if cancer is still suspected then an urgent referral should be made anyway. Perhaps a CT will be the first investigation here. Otherwise these patients should be treated symptomatically and then reviewed within primary care.

If still symptomatic and under 60 years they should then enter the fCAL pathway but if older than 60 years, a routine referral should be made.

In time I suspect a workable and pragmatic pathway such as this will evolve.

Overall, Dr Turvill concludes FIT is an excellent test and will capture almost all CRC. However, we must remain cognisant of its limitations and ensure that FIT negative follow-ups are conducted to avoid excess referral, and therefore dilution of the benefits of FIT, and encourage the partnering of FIT with clinical suspicion to ensure we capture as many of those cancers as possible.

A video of Dr. Turvill’s presentation can be seen at www.faecal-immunochemical-test.co.uk/events.

Reference:

The future pathway; FIT/FC

Figure 2: Potential Digestive Diseases Patient Pathway as proposed by Dr. James Turvill
Interest in the faecal immunochemical test (FIT) amongst clinicians, medical laboratory professionals and even the public is growing rapidly. This has accelerated since NICE Diagnostics Guidance DG30 was published last summer. In addition the NHS Bowel Cancer Screening Programmes are beginning to roll out FIT.

FIT is now an established diagnostic test that identifies the presence of minute quantities of haemoglobin (blood) in the stool, known as faecal occult blood (FOB), which can be an early sign of colorectal cancer. FIT uses antibodies specific to human haemoglobin so is more sensitive and has a greater specificity than the previous qualitative guaiac based methods.

In 2016 following a successful pilot involving 40,000 people, the UK National Screening Committee recommended that FIT should be rolled out nationally. The research showed that the new test can increase uptake, especially in groups that have previously not taken part in the programme. This is because the sampling method is easier, more hygienic and more acceptable to people invited for screening. The automated FIT assay benefits clinicians and laboratories too; with rapid turn-around, quantitative results, and simple processing.

In addition, the recommendations of NICE Diagnostics Guidance DG30 “Quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care” - has stimulated attention on the use of FIT to triage for referral to secondary care, people whose symptoms suggest colorectal cancer, but in whom a definitive diagnosis of cancer is unlikely.

For Clinicians
Waiting times for endoscopy resources are increasing putting these departments under rising pressure. Performing an initial FIT test to categorise the patient could, with confidence, predict those for whom colonoscopy is not appropriate.

For Laboratories
The HM-JACKarc system is easy to set up and can be loaded with up to 80 samples at any one time. It can stand alone or be linked to the LIS, allowing flexible options for connectivity and full audit trail of results, QC and reagent lot numbers.

For Patients
Concerned about their condition, patients want quick answers, with minimal intervention. With FIT testing they can have access to more information about the symptoms they exhibit and the possible causes for them.

Access to the Experts
Covering both screening and symptomatic testing applications, experiential case studies, plus videos of presentations, provide access to expertise from key opinion leaders in the field.

With pages tailored to each part of the patient pathway, an extensive list of literature, publications, resources, related news and events that are regularly updated, this is the number one resource for FIT in the UK and Eire.

Support for Your FIT Service
www.faecal-immunochemical-test.co.uk also offers useful information on products and solutions necessary to provide a FIT service. With Alpha Laboratories’ Bowel Cancer Specialists on hand to help develop your specific programme it is the ‘go to’ place for advice from the experts, whose knowledge has been gained from many years’ experience in faecal occult blood testing and a long association with the NHS bowel cancer screening programmes.

Visit www.faecal-immunochemical-test.co.uk for further information or contact us at diagnosticdx@alphalabs.co.uk to discuss setting up your FIT service.
Convenience for Patients, Quality Test Results

Alpha Laboratories is the exclusive UK supplier of the Kyowa Medex HM-JACKarc quantitative faecal immunochemical test which is recommended by NICE DG30 for adoption in primary care to guide referral for suspected colorectal cancer. HM-JACKarc provides fully automated testing on a compact bench top system, with excellent sensitivity at the low end.

The simple, hygienic sample collection device is easy for patients to use, encouraging uptake of the test and reducing waste. It collects a consistent specimen size across different faecal matter and contains a proprietary collection buffer that stabilises the faecal haemoglobin for 14 days at ambient temperature and up to 120 days when stored at 2-8°C.

A FIT Service Designed For You

Whether you are using FIT to assess patients in a screening programme, or investigating symptomatic patients, the entire start-to-finish process requires specialist consideration. Alpha Laboratories can provide a range of products and FIT services to help you develop your programme, tailored to your specific requirements. From logistics to patient instructions, complete custom kits to scheduling assistance, our Bowel Cancer Specialists are on hand to help you create the ideal solution to support your patient pathway.

Unique Instructions for Use

Alpha Laboratories is able to create specific FIT instructions for use (IFU) tailored to your testing service. A localised design can better reach your range of demographics, simplify returns and improve uptake of the test. Available in a range of formats, IFUs incorporate:

- Easy to Read Fonts
- Pictograms
- Small Help Cards
- Larger Instruction Sheets
- Additional Languages

Customising your IFU will ensure you engage with your target audience more effectively, leading to an increased participation rate and less waste.

Packaging Tailored to Your Requirements

Depending on where your samples are being sent (GP practice, testing lab, central processing hub) you may require an innovative packaging solution. We can provide:

- Small, grip seal bags to mail the sample
- Padded envelopes for general mailing
- Freepost, pre-addressed envelopes for ease of use

Whether your patient samples are sent via the postal service, dropped off at a local GP or clinic, or sent to a main hospital, we can provide a range of solutions to make it simpler for all parties involved.

Alpha Laboratories’ experienced team can support you in establishing a FIT service, providing education, product demonstrations and logistics solutions. We’re here to help, so please contact us to discuss your needs, by email at digestivedx@alphalabs.co.uk or visit www.faecal-immunochemical-test.co.uk