Introducing the FIT Service at NHS Tayside

Judith Strachan, Consultant Clinical Scientist,
Ninewells Hospital & Medical School, NHS Tayside

CS case study

Gastroenterologists are increasingly challenged to provide an appropriate colonoscopy service to the population with more referrals and longer waiting times. In Tayside we'd seen the number of colonoscopies going up year by year. However, the number of cancers being identified wasn't changing, despite an increasing number of people being subjected to an invasive and potentially risky procedure.

NHS Tayside has a long standing history of bowel screening and, more recently of also analysing faecal haemoglobin in samples from symptomatic patients. Based on concerns about increasing colonoscopy lists, we became involved in discussions with our gastroenterology team exploring whether we could introduce quantitative faecal immunochemical testing (FIT) into our existing colorectal referral pathway. Could we triage people using a FIT result to refine whether they really needed a colonoscopy?

Data from our initial investigation was published in GUT in 2016[1]. GPs asked patients that they were already referring to gastroenterology to submit a faecal sample, so that we could analyse their faecal haemoglobin with FIT. This didn't affect the patients' subsequent management and progression along the standard gastro pathway. We then, in retrospect, assessed clinical outcomes against the FIT result for each patient. This analysis showed that a negative FIT result correlated with a very low chance of having any significant bowel disease such as cancer or IBD.

Using this data we were able to demonstrate that provision of FIT was viable, since we believed the number of unnecessary colonoscopies performed could be cut quite significantly. This was obviously very attractive, not only financially, but also in the potential for reducing the waiting times and pressures for the increasingly challenged personnel.

Engaging the GPs

Once we had obtained funding, the next step was to engage with the GPs. We went to them with a 'package' early on to make it as easy as possible. It's important that the service fits local referral practice. At first there were some concerns from the GPs, because they were being asked to request another test and didn't want to delay an urgent referral. The GPs had input into the patient instruction leaflets and guidance on how to get samples back.

The sampling aspect was new because the FIT test uses a faecal sampling device that's placed in a buffer tube. Faecal material in pots is not acceptable for FIT since there's so much evidence that faecal haemoglobin degrades. We send out FIT kits with patient instruction leaflets (Figure 1), directly to GP practices and the samples are returned using the normal laboratory transport arrangements. Patients are remarkably happy to do the test as advised and are absolutely fine using the FIT sampling device. We've had no negative feedback or issues at all.

Figure 1. Faecal Immunochemical Test (FIT) Sampling Device and Patient Instruction Leaflet.

We promoted the FIT service through a series of joint key newsletters and emails from gastroenterology and the laboratories to the GPs. This supported GP education and engagement so that they became more receptive to the idea. Involvement from gastro is essential and at Tayside the process was virtually led by them. This is really important as the service can't just be set up from a lab perspective and the joint approach is well received by the GPs.

Triaging with FIT

Tayside has been offering the FIT service for about 16 months now. It took about six months before we got full engagement from the GPs, because this was such a new process. Adding FIT onto our existing colorectal referral bundle through the electronic requesting system helps make it more straightforward. The FIT result is going back to the GP and to further support the process, we signpost them to the Tayside gastroenterology page which details what to do next and what the options are, dependent on the FIT result.

About 75 to 80 percent of referred patients now have a FIT result. The tests are being analysed daily to make sure that we don't delay any referrals. So, by the time the gastroenterologists are seeing an electronic referral, either the FIT result is with that referral or they can look it up. The FIT result is being used as part of the decision making process as to what to do next. Do they go straight for colonoscopy or are they seen in a clinic? Sometimes if a referral is sent without a FIT, the gastroenterologist will request one, using the two way interactive electronic referral system.

A crucial part of this process is to have the clinical input from the GPs as the FIT result can't be used in isolation. It has to be taken in conjunction with clinical signs and symptoms. If there is high clinical suspicion of a colorectal cancer or other serious condition, but the FIT result is negative, then of course that should not stop a referral. It's really important that this message is clear and FIT is used in combination to get the bigger picture.

With the increased awareness and roll out of FIT, there is anecdotal feedback that the GPs really like the ability to offer this test. Some patients are reluctant to be referred to gastro because they are worried that they will end up having a colonoscopy. Now, the GP can offer this test first, before that decision is made. If the FIT result is positive then they know there are good grounds for proceeding to colonoscopy. If it is negative, then the chances are there is nothing seriously wrong and the patient is given that reassurance.

We also have evidence that the referral status of people is changing. Previously where someone may have had a routine referral, now, if the FIT result is very high, the gastroenterologists may change that referral to urgent.

> *So, individual patients are getting a colonoscopy and diagnosis of a cancer much faster.*

We're also starting to see a reduction in actual referrals into gastroenterology for the first time that anyone can remember. So, that shows that the GPs are gaining confidence that if there is a negative FIT the chances are that their patient doesn't have anything seriously wrong. The benefit is that by the reducing the number of people being referred unnecessarily, those that really do need it, are being seen much faster.

Reducing Colonoscopy Lists

> *We are now getting real reductions in waiting times for colonoscopy in Tayside, with patients advancing through the system much faster.*

Without the FIT implementation I'm sure referrals would have continued to grow, but they have now plateaued and fallen for the first time in years.

FIT Service Success Factors

Referral pathways differ across the UK, so it's important for any labs planning to set up a FIT service to fully understand their local procedures. It's essential to engage with the gastro service. There may not always be a seamless communication system. I think you've got to adapt to whatever exists or take the opportunity to influence it. Labs have to understand the role of the GPs and you really need to know what your gastroenterologists want out of the testing. How are they going to use the test result, what turnaround time is appropriate and how many samples will there be? It's important to look at how many referrals there are to gastro and how many colonoscopies are being done. Without that information you can't really start to plan how the lab is going to offer the service.

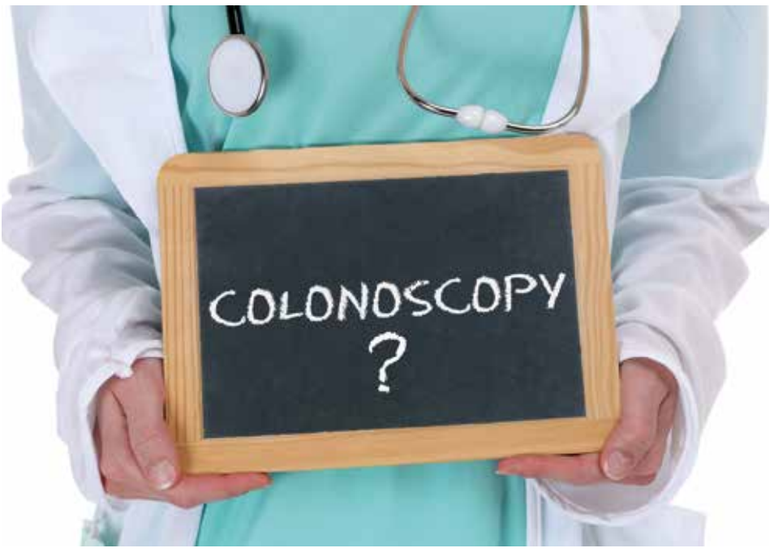
I think the key success factor for the Tayside implementation has been the team work between gastro and the labs. Flexibility and good communication on both sides has worked really well. We've also learned a lot from the GPs over time and adapted to providing more kits, as we initially underestimated that. Feedback to the GPs has been really crucial and we liaise every two or three months through a newsletter. We feedback regularly about what we're actually funding, how many tests we've performed, how many referrals there have been etc.

Support from the supplier of the test is also crucial because you need their offering to work with the local system, provision of instruction leaflets and help with the whole package. You need a logistics solution to get the tubes from the lab to the GP and back again in a time frame that suits the service. Labs shouldn't underestimate the time taken to set this up. The next step for Tayside is really in refining the service, particularly regarding the detailing of the reports. We want to provide further guidance on what results mean to give GPs more confidence to make decisions. We are happy that our process is robust and just need to focus on further education of GP practices that haven't yet engaged. We're really interested to look at the population we have results from, to see if they are the demographic that is slow to engage with the GP.

Judith Strachan (left) with Becky McCann, using the HM-JACKarc FIT System to analyse samples for faecal haemoglobin

We'd also like to investigate sequential samples. If a patient has a negative FIT but still has symptoms, is it worth doing further tests? So there are lots of possibilities that we've not really explored yet.

The team is hoping to publish the work to date by mid-2017. There's an inevitable lag time in obtaining details of the clinical outcomes of these patients a lot of resource required to check on referral and clinical outcomes and this should not be underestimated.



Reference

1. Mowat C, Digby J, Strachan JA, Wilson R, Carey FA, Fraser CG, Steele R. Faecal haemoglobin and faecal calprotectin as indicators of bowel disease in patients presenting to primary care with bowel symptoms. Gut. 2016 Sep; 65(9):1463-9