NHS
Business Services Authority

Yorkshire & Humber Academic Health Science Network (Y&H AHSN)

Implementation of Faecal Calprotectin Testing

Introduction

Faecal calprotectin testing is recommended by NICE to help doctors distinguish between inflammatory bowel diseases (IBD), such as Crohn's disease and ulcerative colitis, and non-inflammatory bowel diseases, such as irritable bowel syndrome (IBS)[1].

Whilst IBS should be managed in primary care, IBD may cause symptoms serious enough for major surgery to be required therefore distinguishing an accurate diagnosis of IBS and IBD is essential. This diagnosis can be difficult as similar symptoms are present in both IBS and IBD.

Where diagnostic uncertainty exists, patients are referred to secondary care for further investigation (consultation, colonoscopy and follow up appointment) at the cost of approximately £725 per referral[2]. The referral process takes a number of weeks and the procedure is invasive and unpleasant. Elevated levels of calprotectin in faeces are an indicator of IBD, not IBS. Measuring calprotectin levels would aid diagnosis and result in fewer unnecessary referrals. Although both laboratory and point of care testing (POCT) products are available, the use of calprotectin testing is currently limited.

A new pathway introduced by Y&H AHSN incorporates the use of faecal calprotectin testing in order to offer GPs assistance when trying to diagnose IBS/IBD.

Discovery

Y&H AHSN identified faecal calprotectin testing whilst undertaking a programme to assess diagnostics approved by NICE but with limited uptake. Although there was some local activity, differing thresholds were used to determine if a patient should be referred to secondary care.

A discussion with Dr Michael Messenger, Deputy Director of the Diagnostic Evidence Co-operative (DEC) in Leeds, led Y&H AHSN to Dr James Turvill, Consultant Gastroenterologist at York Teaching Hospital. Dr Turvill had been researching the use of faecal calprotectin and had recently conducted a pilot to assess its effectiveness in assisting primary care diagnosis.

Findings from the pilot made a convincing case for change and in parallel, an opportunity arose to apply for Health Foundation funding. Y&H AHSN collaborated with Dr Turvill in submitting an application which reached the second round but was unsuccessful in securing funding. As Y&H AHSN could see the value in implementing faecal calprotectin and given the commitment they had already shown, it was agreed that work to encourage uptake of calprotectin testing would continue within their locality.

Faecal calprotectin was previously used as a ‘rule out’ test. This was expensive and generated extra work. The new pathway used the diagnostic test as a ‘rule in’ test, which provided a number of benefits.

YORKSHIRE & HUMBER
ACADEMIC HEALTH SCIENCE NETWORK

Funded by NHS England and local partners

24 CCGs within boundary
Covers 10% of England’s population and health budget

Has a mixture of large cities and rural areas with a broad spectrum of socio-economic backgrounds and ethnicities.

The level of interest from CCGs and compelling findings from Dr Turvill’s pilot meant that encouraging the uptake of faecal calprotectin was like ‘pushing on open doors’ and could easily be justified.

Implementation

Y&H AHSN contacted each CCG within their patch to identify those that were already conducting faecal calprotectin testing and those that were not but were interested in implementing.

Dr Turvill provided the clinical expertise and both he and Y&H AHSN representatives attended meetings with CCGs. Four early adopter sites were identified and close working relationships were formed with Improvement Leads and Clinical Leads within each.

Y&H AHSN created a stakeholder map and implementation plan for local implementation and in order to aid adoption and adherence they liaised with eMBED Health Consortium to create system templates to guide GPs through the new pathway.

Y&H AHSN created an implementation pack for the CCGs/GPs incorporating the following tools and templates:

Calprotectin testing benefits

For the GP:

- ✓ Assists diagnosis
- ✓ Clear process

For the trust:

- ✓ Alleviates waiting lists
- ✓ Increased pathology opportunities

For the CCG:

- ✓ Financial savings

For the patient:

- ✓ Accelerates diagnosis
- ✓ Only referred if required

- Template business case
- Downloadable pathway templates for EMIS and SystmOne
- Instructions for the download of the EMIS and SystmOne templates
- Educational video to explain the faecal calprotectin pathway
- Educational slide deck
- GP leaflet to provide more detail of the pathway and why and when to test
- Patient leaflet to explain what the test is and why it is being carried out

Within each CCG it was identified that primary and secondary care leads had differing needs and priorities and so implementation assistance was tailored to account for this.

The hospital trust were also consulted as the introduction of the new pathway would reduce endoscopy referrals for the purpose of diagnosing IBD/IBS and the trust had shown concern relating to loss of income. It was explained to the trusts that as they were already working to extended waiting times in conjunction with the reduction in the bowel scope screening age, any reduction in IBD/IBS diagnostic referrals would still leave the endoscopy unit working at full capacity.

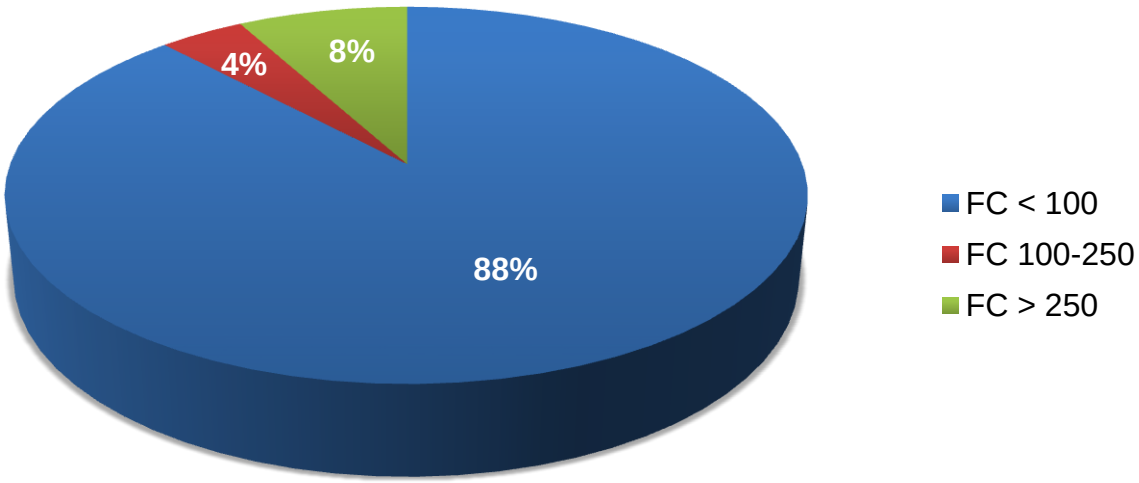
Outcomes

Currently four CCGs have adopted the new pathway and 90% of their GPs are using it. Some GPs have shown a little reluctance to follow the pathway; however secondary care referrals may be rejected if they have not adhered to it. In order to encourage uptake with the remaining 10%, a list of GPs who request the test is shared with CCGs to help them directly target those who do not.

An additional six CCGs are fully engaged and will be going live soon. A further two have requested a meeting to discuss the opportunity further and the remaining 12 CCGs have been updated on the project status.

Currently all requests for faecal calprotectin testing go to one pathology laboratory as this is the only one set up for the test at present. However, there are five other laboratories in the area, one of which has stated they will move their tests in-house once the volumes reach a certain threshold. Conducting faecal calprotectin tests gives laboratories the opportunity to establish local services rather than shipping to a neighbouring laboratory. It is important to note that laboratories should be running these tests a minimum of three times per week to ensure the patient receives a speedy result.

York Health Economic Consortium (YHEC) is undertaking a full economic evaluation of the pathway implementation. The results are due by the end of this financial year, however an initial assessment of 501 patients who were compliant with the pathway shows that 88% had a calprotectin level of less than 100 µg, therefore a saved referral to secondary care.



Challenges and lessons learned

Due to there being no universal forum for discussing and implementing a new pathway, challenges were highlighted in finding the right people and aligning the conversations to make implementation possible.

A perceived loss of income by the hospital trust was a challenge to overcome. It was explained to the trust that the increasing demand for endoscopy services due to the reduction in the bowel scope screening age should not leave the trust short of referrals. The trust would see benefit in the increased diagnostic yield for those referred for IBD/IBS diagnosis and a reduction in waiting times for this cohort of patients.

In the Yorkshire & Humber area only one pathology laboratory conducted faecal calprotectin testing and did this at the cost of circa £30 per test. NICE quoted a standard test cost of £24[1], resulting in the laboratory recruiting another member of staff to ensure the increased workload could be managed and to also drive down the cost to meet the standard cost.

It may be a little more challenging to implement faecal calprotectin testing in areas where the local pathology laboratory is not set up for this. In order to conduct the test, it is anticipated that a new service would be bought in and that individual laboratories may start conducting their own tests once requests exceed a certain threshold.

A collaborative approach using the Y&H AHSN and a Consultant Gastroenterologist was crucial to success. Without a clinical champion, it is unlikely that implementation would have occurred.

Next steps

Step 1
Patient survey issued to patients diagnosed in line with the new pathway (Feb 17)

Step 2
GP survey issued to assess GP satisfaction (Feb 17)

Step 3
YHEC evaluation conducted and results made available (Apr 17)

Step 4
Ongoing engagement with CCGs yet to adopt the new pathway

[1] NICE Diagnostic Guidance (DG11) - Faecal Calprotectin diagnostic tests for inflammatory diseases of the bowel
[2] 2014/2015 National Tariff payment System -NHS England Publications Gateway Reference 00883.