Evidence

Cannock Chase CCG / Stafford & Surrounds CCG (Jul 14 - Aug 15)8

Point of care test

50µg threshold applied for referral to secondary care

56% reduction in referrals to secondary care

£280,000 net cost savings

Yorkshire and Humber AHSN (Yorkshire & Humber AHSN)9

Laboratory test

100µg threshold applied for referral to secondary care

88% reduction in referrals to secondary care

Full economic evaluation is available on its website

Northumberland CCG (2011/2012)¹⁰

Laboratory test

30µg threshold applied for referral to secondary care

68% reduction in referrals to secondary care

£29,000 cost savings (from non-referral of low rate FCP patients)

Durham Dales CCG (2011/2012)11

Point of care test

15µg threshold applied for referral to secondary care

64% reduction in referrals to secondary care

£61,000 cost savings (from non-referral of low rate FCP patients)

For more information please contact:

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NHSBSA's Pacific Team is helping deliver sustainability for the NHS by identifying, developing and delivering opportunities which create financial savings for reinvestment back into the NHS, enhance health and wellbeing and improve the quality of patient care.

Additional Resources

References:

- NICE Diagnostic Guidance (DG11) Faecal Calprotectin diagnostic tests for inflammatory diseases of the bowel https://www.nice.org.uk/guidance/dg11
- ² 2014/2015 National Tariff payments System NHS England Publications Gateway Reference 00883.
- ³ Y&H AHSN implementation of Faecal Calprotectin Testing case study
- MHRA Management and Use of IVD Point of Care Test Devices DB2010(02) February 2010, ISO 22870:2016 Point of care testing (POCT) Requirements for quality and competence
- ⁵ Calprotectin testing pilot by Cannock Chase (CC) and South Staffs (SaS) 2014/2015
 - https://www.nice.org.uk/sharedlearning/implementing-faecal-calprotectin-testing-in-primary-care
- 6 https://www.nice.org.uk/guidance/dg11/chapter/5-Outcomes#economic-analysis
- ⁷ https://www.nice.org.uk/guidance/dg11/chapter/5-Outcomes#economic-analysis
- Calprotectin testing pilot by Cannock Chase (CC) and South Staffs (SaS) 2014/2015 https://www.nice.org.uk/sharedlearning/implementing-faecal-calprotectin-testing-in-primary-care
- ⁹ Y&H AHSN implementation of Faecal Calprotectin Testing case study
- NHS Technology Adoption Centre Faecal Calprotectin testing in primary care http://www.calprotectin.co.uk/wp/wp-content/uploads/2013/05/Faecal_Calprotectin_Report_Final_220413.pdf
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Introduction

Faecal calprotectin testing is recommended by NICE (DG11) 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. Faecal calprotectin is a protein released into the intestines when inflammation exists. Elevated levels of calprotectin in faeces are an indicator of IBD, not IBS.

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 £666 per referral². The referral process takes a number of weeks and the procedure is invasive and unpleasant for patients. It is recommended that calprotectin testing should be carried out after all other relevant GP assessments have taken place and at the point where the GP would normally refer to secondary care. Therefore, a low calprotectin result would indicate a saved referral. Although both laboratory and point of care testing (POC) products are available, the use of calprotectin testing is currently limited.

NICE (DG11) refers to a cut-off level of 50µg; however, this value was driven by products on the market at the time of publication, rather than clinical need. NHS England's Chief Scientific Office established a Task and Finish Group (T&FG) to improve the uptake of faecal calprotectin testing and to develop a national algorithm for calprotectin testing within primary

care. The group, including GPs, consultant gastroenterologists, commissioners and Academic Health Science Networks (AHSN) agreed that the lower threshold should be raised from 50µg to 100µg. This has negligible impact for patients but could result in significant benefits for commissioners. The thresholds agreed by the group are shown below:

< 100μg: IBD unlikely, manage symptoms locally

100µg-250µg: Repeat within 2 weeks

> 250µg: Following clinical review, urgently refer or repeat within 2 weeks

If test is to be repeated ($100\mu g-250\mu g$ or $>250\mu g$):

< 100μg: IBD unlikely, manage symptoms locally 100μg-250μg: Routine referral to secondary care > 250μg: Urgent referral to secondary care

Yorkshire & Humber AHSN has been instrumental in the implementation of laboratory based faecal calprotectin testing across CCGs in its area. An initial assessment of 501 patients who were compliant with the pathway showed that 88% had a calprotectin level of less than 100µg; therefore resulting in significant saved referrals to secondary care³.

Benefits

For the GP:

Assists diagnosis

Implementing calprotectin testing will give clinicians more confidence in diagnosis without the need for secondary care intervention. Establishing the correct diagnosis is important as treatment and management of both conditions will be different.

Clear process

Guidance published by Primary Care Commissioners will provide clinicians with a mechanism to guide the management and referral of patients.

For the trust:

Increased pathology opportunities

Many laboratories will already be offering faecal calprotectin testing services, where CCGs implement a laboratory based calprotectin test this will increase usage and will be beneficial for the lab.

Increased responsibility for pathology labs

Where rapid point of care testing (POC) is introduced into primary care governance exists which qualifies the role of a pathology lab.⁴

Reduction in waiting times

A reduction in unnecessary referrals may result in reduced waiting times for secondary care procedures and will enable improved management of endoscopy services.

Benefits (continued)

For the CCG:

Financial Savings

Evidence has shown that testing for faecal calprotectin can reduce unnecessary referrals to secondary care by 56% - 88%⁵. This could drive significant financial savings.

Reduction in outpatient appointments

Reducing unnecessary referrals will mean a reduction in the number of patients attending outpatient appointments prior to procedures

For the Patient:

Only referred if required

Patients whose calprotectin level is <100µg will avoid referral for unnecessary invasive procedures.

Early identification of serious conditions

Patients whose calprotectin level is >250µg will be referred urgently to gastroenterology.

Greater confidence in diagnosis

Patients will benefit from quicker diagnosis and will have greater confidence in the clinical pathway.

Implementation

Yorkshire & Humber AHSN has been instrumental in the implementation of lab based faecal calprotectin testing in CCGs in its area. The following have been key drivers to their success:

A Clinical Champion

Dr James Turvill, Consultant Gastroenterologist at York Teaching Hospital, provided the necessary clinical expertise, working with Yorkshire & Humber AHSN and CCGs to bring about change. This collaborative approach has been crucial to achieve successful implementation.

Robust stakeholder engagement

Key stakeholders were identified and engaged at an early stage. A stakeholder map was created and a plan for local implementation was developed which provided the necessary rigour.

National AHSN Network

Building on the success of Yorkshire and Humber, the AHSN national network has recently confirmed that faecal calprotectin testing has been selected as one of its collaborative projects and has agreed to support CCGs with the spread and adoption across AHSNs nationally.

Challenges & Mitigation

Challenge	Mitigation
Impact on CCG financial commitments through block contracts already in place	Current financial and contractual commitments will need to be assessed which impact the timing of financial benefits.
Perceived negative impact on income generated by gastroenterology activity in high volume waiting lists in hospital trusts	The reduction in the bowel cancer screening age should counter balance any perceived loss of income by hospital trusts as referral rates decline.
Point of Care Test – which to choose?	 CCGs may consider rapid POC tests where: testing is not established in labs to improve results turn-around time in rural areas Point of care tests are available from £12.50. Some CCGs offer a £15 incentive fee to administer the test⁶.
Laboratory Test – which to choose?	 CCGs may consider lab tests where: laboratory testing is already in place the current laboratory infrastructure could support an increase in use results turn-around time is timely NICE estimate lab costs to be in the region of £24 per test (including man hours)⁷.