

MODERNISING IBD CARE PATHWAYS WITH HOME CALPROTECTIN TESTING

CASE STUDY FROM A LEADING NHS IBD SERVICE

Tracey Tyrrell, Lead IBD Advanced Nurse Practitioner and Jitka Adio, Clinical Nurse Specialist

The prevalence of inflammatory bowel disease (IBD) is increasing sharply, currently affecting over 500,000 people in the UK.¹ The cost of treating flares of Crohn's disease or ulcerative colitis exceeds £10,500 per person per year,² so it is essential that NHS trusts respond to rising demand by optimising patient care pathways to avoid unnecessary use of resources.

IBD is characterised by unpredictable flares and chronic symptoms, requiring continuous monitoring to ensure effective treatment. Faecal calprotectin is a sensitive and specific biomarker for intestinal inflammation, and the British Society of Gastroenterology 2025 guidelines recommend calprotectin testing for the diagnosis of IBD, before the initiation of treatment with biologics, and for ongoing monitoring.³ By assessing faecal calprotectin levels, care teams can monitor initial response to biotherapeutics, detect a loss of response and, crucially, detect a flare, sometimes even before symptoms develop. [BIOHIT's SmarTest® Calprotectin Home test](#) is a rapid, highly specific lateral flow test that uses gold-conjugated antibodies to detect and quantify calprotectin levels in stool samples. Using the accompanying SmarTest app, the test results are scanned, logged and shared directly with clinical teams. This approach provides a reliable, non-invasive way to assess disease activity, allowing patients to perform remote monitoring of IBD in their own homes.

The SmarTest Calprotectin Home test is now being implemented at the UK's leading national and international referral centre for intestinal diseases – [St Mark's Hospital](#), part of the London North West University Healthcare NHS Trust.



“ Our initial implementation of the SmarTest Calprotectin Home test kit has been well received, and I would definitely recommend this approach to other NHS trusts' IBD services. The ability to perform this test at home, and get the results straight away, is a real benefit for patients. We are now hoping to expand our use of the kit to more patients, further streamlining and strengthening our IBD care pathways. ”

Tracey Tyrrell, Lead IBD Advanced Nurse Practitioner

The centre's [IBD service](#) treats both locally and nationally referred patients, providing care to over 13,000 IBD patients a year. This service relies on a large multidisciplinary team including IBD clinical nurse specialists and nurses, surgeons, gastroenterologists, dietitians, pharmacists, stoma and pouch care providers, psychiatrists and psychologists.

Meeting increasing demand while improving standard-of-care

There has been a marked increase in the number of patients with IBD seeking care in recent years. This trend is likely driven by environmental and lifestyle factors, as well as growing public and primary care awareness of Crohn's disease and ulcerative colitis, and the importance of early diagnosis. Like many IBD services, the team at St Mark's Hospital has had to adapt to rising demand.

Many of these patients are being treated with newer biologics, such as infliximab and adalimumab – as well as related biosimilars – which require regular follow-up and therapeutic drug monitoring. The SmarTest Calprotectin Home test means much of this monitoring can take place outside the clinic, easing pressure on the service. Community nurses issue patients with a unique QR code that links the SmarTest app to the hospital's test portal. Once connected, each test result is uploaded automatically, allowing clinicians to review the data and consider interventions without delay, such as dosage adjustments to prevent a flare, or arranging a colonoscopy or further testing.



Jitka Adio, Clinical Nurse Specialist

“ We are currently using SmarTest Calprotectin Home test to monitor patients on biologics. When we see a trend of elevated calprotectin levels, it gives us a warning that the drugs may be losing effect, enabling dosage or treatment adjustments earlier. It is definitely helpful in this scenario. It is also sometimes quite challenging to access calprotectin tests from a GP in some areas, so remote testing here is absolute gold. ”

Jitka Adio, Clinical Nurse Specialist

“ Limited clinical capacity has made it more difficult to monitor patients on newer biologics as frequently as we would like. Home testing gives us far greater confidence in how a patient is doing, particularly when calprotectin levels remain low. ”

Tracey Tyrrell, Lead IBD Advanced Nurse Practitioner

The real-time monitoring offered by the SmarTest Calprotectin Home test represents a significant advantage over the standard approach. Without home testing, the team at St Mark's must send out a relatively bulky stool collection kit, and local patients are asked to return samples to the hospital within 48 hours, or drop them off via their GP. Samples are then sent to the laboratory for analysis, adding pressure to an already stretched service. Crucially, results typically only reach the IBD team 10 to 14 days later.

“ With the standard service, by the time calprotectin results come back, the patient's condition may have changed, so the result may no longer reflect the clinical reality. The SmarTest app notifies us of the results immediately, allowing us to intervene quickly in the event of a flare or other complication. ”

Tracey Tyrrell, Lead IBD Advanced Nurse Practitioner

A patient-centred approach can improve outcomes and quality of life

Placing the patient at the centre of their own care has been shown to improve both health outcomes and patient satisfaction. Home calprotectin testing supports this approach by offering greater convenience while reducing stress and embarrassment, as well as offering significant time savings for both the patient and healthcare provider compared to traditional testing methods.

Patients can also feel empowered by being involved in their own care. With home testing, they are provided with a real-time indication of how they are doing, which can offer them reassurance. This also avoids patient dissatisfaction when traditional laboratory testing services are in high demand or services meet logistical challenges.

References:

1. All about Crohn's and Colitis. 2024. *Crohn's and Colitis UK*. Accessed 30th April 2025. Available from: https://crohnsandcolitis.org.uk/media/jppjhz3h/all-about-crohns-and-colitis-ed-8a-2024_final.pdf
2. Crohn's and Colitis Care in the UK The Hidden Cost and a Vision for Change. 2021. *IBD UK*. Accessed 30th April 2025. Available from: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://s3.eu-west-2.amazonaws.com/sr-crohns-craft/documents/CROJ8096-IBD-National-Report-WEB-210427-2.pdf>
3. Moran GW, et al; IBD guideline development group. British Society of Gastroenterology guidelines on inflammatory bowel disease in adults: 2025. *Gut* 2025 23;74(Suppl 2):s1-s101

“ We've had patients who have said they do not feel comfortable bringing a stool sample into the hospital, which is completely understandable. They can also find it difficult to collect a sample, whereas they only need to put a stick into the stool with the home test kit, and do not have to scoop up anything. It's patient-centred care, making it easier and more comfortable for them. ”

Jitka Adio, Clinical Nurse Specialist

Implementation and patient feedback

The team at St Mark's Hospital first introduced the SmarTest Calprotectin Home test during the COVID-19 pandemic, and received positive feedback from patients who were happy to receive their results immediately. They are now using home calprotectin testing more widely to monitor inflammation in patients starting biologic therapies, in younger patients, and in those awaiting colonoscopy to complement visual findings. The majority of patients appreciate the convenience and the speed at which results are available. However, certain groups of patients have found the need for smartphones more challenging. The team is now looking to expand this approach to other patient groups, while also improving support.

“ Patients receive a visit from a home care nurse, who can assist with scanning QR codes to register and linking to their smartphones. We've also had excellent support from BIOHIT, and the company is providing ongoing training for our staff. ”

Tracey Tyrrell, Lead IBD Advanced Nurse Practitioner