Improving Bowel Screening:
Introduction of the Quantitative Faecal Immunochemical Test (FIT) in the Scottish Bowel Screening Programme

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Rolled out between 2007 and 2009, the Scottish Bowel Screening Programme helps to catch bowel cancers before symptoms present. Over 90% of people survive bowel cancer when it is caught at an early stage. Bowel cancer is the third most common cancer in Scotland, among both men and women.

The programme is unique among screening as it posts self-tests to eligible participants' homes and requests these be returned by post to the laboratory. Until November 2017, this test was the Faecal Occult Blood Test (FOBT), which required samples from three separate bowel motions, was analysed qualitatively based on human perception of colour change, and delivered only a positive/negative result.

On 20 November 2017, the Scottish Bowel Screening Programme transitioned to the Faecal Immunochemical Test (FIT) in a national roll-out. FIT is more acceptable to participants, requires only a single sample, and returns a quantitative result which allows the programme to set the threshold for positivity, enabling a tailored approach to population screening.

Aims / Objectives

FIT has increased the accuracy of sample testing, will reduce the interval cancer rate (cancers missed by screening), and has already demonstrated improved uptake. It is also a more acceptable and user-friendly test for participants.

Introduction of FIT supports Scotland’s commitment toward 2020 to:

- Improve outcomes, by diagnosing a treatable cancer early
- Use the most effective technology, by providing superior analytical quality compared to FOBT
- Enable responsibility for one’s own health, by inviting participants to complete their own test
- Support an ageing population, by screening those aged 50-74, and by request for those over 74
- Tackle health inequalities and barriers to participation, by introducing a test which is simpler and considered more acceptable by users
- Become a world leader in healthcare quality by leading the way with innovation

Methodology

- A Full Business Case including a Cost Benefit Analysis for national implementation of FIT was presented to Scottish Government in June 2014. The Cabinet Secretary announced in February 2015 that FIT would be implemented in Scotland.
- Colleagues from across the NHS worked with partners and stakeholders on the two year programme to implement FIT via work-streams overseeing the changes necessary in procurement, IT, premises, workforce, threshold, monitoring and evaluation, Board services, and communications. The programme required:
  - A complete change to almost every part of the IT system
  - Reviews and changes to the entire suite of communication materials
  - Moving the Bowel Screening Centre from one hospital to another
  - FIT was successfully implemented on 20/11/2017 across Scotland. A dual running period in which both FIT and FOBT kits were able to be tested ran for eight weeks before FOBT functionality was turned off on 14/01/2018.

References


Results / Outcomes

- Over 350,000 invitations and kits have gone out since the introduction of the new test in November 2017.
- FIT provides a more accurate measurement of human blood in the faeces as it specifically measures the amount of human globin present using automated analysers.
- Early data indicates that uptake has increased by at least 5 percentage points.
- FIT has allowed for a more efficient, shorter turnaround time from sample collection to result. Whereas previously results could take 14 - 30 days, results are now returned in only a couple of days. The programme has already received notes of compliment from the public on this improvement.
- The programme has delivered the flexibility to adjust the threshold in response to variation in the positivity rate, and to open the door to a world-leading approach on risk scoring.
- The extensively-tested communication materials won a Plain English Award for their accessibility.
- Scotland was the first UK nation to roll out FIT in population screening. Scotland hosted a Bowel Screening Four Nations Event on 19 April 2018, at which the programme’s progress, success, and challenges were presented openly and transparently to the other UK nations who are all still in the process of planning roll out.

What’s Next

- Scotland is also leading in the introduction of FIT in symptomatic services. Screening will continue to collaborate with the symptomatic roll-out to reduce duplication and make efficiencies.
- The programme has a dedicated group that looks at the threshold for positivity, which regularly monitors emergent data and assesses whether any change is needed to the threshold.
- The programme publishes Key Performance Indicators (KPIs) every six months. As each screening round is two years long, the first complete set of FIT-only KPIs will be available in February 2021.
- Once programme and interval cancer data are available, the programme can begin to analyse if there is value in varying the threshold or interval between rounds for different population groups, according to their risk.

“I didn't have any symptoms and I took the test. I was shocked at the result but I'm grateful I took the test. It saved my life.”

Phyllis, Lanark