

Patient and healthcare professionals' perceptions of a combined blood and faecal test for excluding colorectal cancer in primary care.

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INTRODUCTION

Two week wait/urgent suspected cancer referrals have increased over the last decade. As such, the current colorectal cancer (CRC) referral pathway is under significant pressure with large numbers of patients being referred for invasive testing and a low conversion rate of <5%. When diagnosed early, CRC has excellent outcomes. Delayed diagnosis is multifactorial and associated with poorer outcomes. There is, therefore, a need to transform the current diagnostic pathway.

There is growing interest in the use of novel diagnostic markers in primary care to help triage patients with colorectal symptoms to aid referral decisions¹. These include the faecal immunochemical test (FIT) which detects haemoglobin in a faecal sample and the blood-based Raman-CRC spectroscopy test². Individually both tests have high negative predictive values (over 98%) for CRC^{3,4}. FIT was introduced in 2017 for low-risk symptom triage in primary care⁵ with evidence growing for its use in high-risk symptoms meeting NICE NG12 criteria. However, FIT alone may not be the ideal triage tool for primary care use given its low patient compliance rate^{6,7} (just 62% of patients in the NICE FIT study) and the fact that it is not currently approved by NICE for patients with rectal bleeding⁸, which is the commonest presenting symptom of lower GI cancer. Work is ongoing to determine the clinical effectiveness of FIT and Raman-CRC combined (CRaFT [IRAS 254366] and COLOSPECT [IRAS 293364] studies). However, little is known about the acceptability of Raman-FIT for cancer exclusion in primary care as a prudent alternative to hospital referral for invasive diagnostics. Indeed, without patient and healthcare professional endorsement, any new test would be poorly utilised.

AIM: This qualitative study explored patients and healthcare professionals' perceptions of Raman-FIT in primary care as an alternative to straight to test colonoscopy. The study was conducted as part of a wider study (CRaFT) exploring the clinical effectiveness of a combined Raman-FIT test.

METHODS

Groups 1&2: Primary care patients (symptomatic, <40years) were recruited to the CRaFT study by their GP and asked to complete Raman-FIT. They were also asked to take part in an interview to explore their views on the test.



Healthcare professionals (HCPs) with experience of taking part in the study and/or specialist knowledge of the referral pathway were recruited from primary and secondary care.

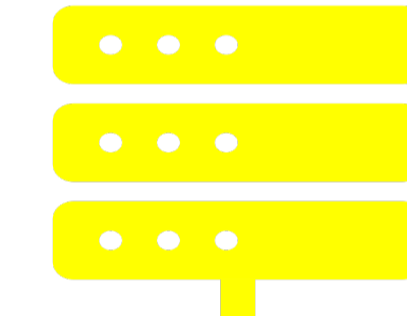


Lay members with experience and knowledge of colorectal cancer and screening were supported to collaborate as equal members of the research team. This helped to ensure that the research and its methods were relevant to the patient and public needs.

Group 3: Patients on the colorectal surveillance register were recruited to include the views of those at higher risk of colorectal cancer.



Patients took part in **semi-structured telephone interviews** once their investigations in secondary care had been completed. HCPs took part in semi-structured Microsoft Teams interviews.



The data was analysed using a **thematic analysis**.

FINDINGS

The patient perspective

- 23 participants (16 female, 7 male).
- Overall mean age was 63 years (range 41-79).
- Only 2 participants in the surveillance group due to the pause of colonoscopy surveillance during the pandemic.

Themes identified: 1) Opportunity costs, 2) Patient priorities, 3) Patient experience of Raman-FIT.

Summary:

- Most participants found Raman-FIT a **preferable alternative to colonoscopy** and reported that earlier access to non-invasive testing had **psychological as well as physical benefits**.
- Other benefits included **convenience, speed** as well as the **avoidance of bowel preparation or time off work** to undergo invasive investigations.
- Barriers to completing Raman-FIT included a **dislike of handling faeces**.
- Participants placed **trust and confidence** in their HCPs knowledge of test accuracy when recommending appropriate tests.
- A minority ($n=2$) would **still want invasive testing** if they had a negative Raman-FIT.
- **Difficulties in completing the FIT test** were reported for those with poor eyesight, arthritis and diarrhoea.

The healthcare professional perspective

- 12 HCPs were interviewed (9 male, 3 female).
- Eight general practitioners, two colorectal surgeons, two gastroenterologists.

Themes identified: 1) Opportunity costs, 2) Perceived willingness of patients to participate in Raman-FIT, 3) Usefulness of Raman-FIT, 4) Healthcare professionals perceptions.

Summary:

- All HCPs showed **interest and enthusiasm** in the prospect of the availability of this test. Raman-FIT **aligned with routine practice** and was a **simple test** for most patients to complete.
- HCPs were confident with its use as an **easy to access initial test** to reassure patients but required **strong evidence** i.e., incorporation into NICE guidelines, **to use it in clinical practice**.
- HCPs agreed the test would be best in a triage setting for low-risk patients.
- Professionals agreed that Raman-FIT may **help to ease the burden** on already stretched endoscopy services.
- Perceived benefits for the patient include **less travel** in rural areas, **convenience**, and **engagement** from patients with high-risk symptoms who do not want colonoscopy.

Table 1: Patient characteristics

	Male (n)	Female (n)	Mean (age)	Range (years)	Diagnosis confirmed by colonoscopy
Referred on urgent suspected cancer pathway	4	8	63.5	41-75	Normal (n=4) Cancer (n=4) Other (n=4)
Urgent/Routine pathway	2	7	64.8	44-79	Other (n=9)
Colonoscopy surveillance group	1	1	53.5	44-63	Lynch syndrome (n=2)

- *'Other' includes polyps, diverticular disease and hemorrhoids

DISCUSSION & CONCLUSION

- There is a role for Raman-FIT in the development of a more prudent diagnostic pathway.
- Most participants were willing and able to use Raman-FIT in primary care. Although limitations of FIT were noted.
- The test was thought to have the potential to accelerate access to diagnosis and improve cancer outcomes through earlier detection and initiation of treatment. Adoption in primary care may also improve patient wellbeing.
- HCPs are more likely to use Raman-FIT if they receive training and it is included in the NICE guidelines.
- To the best of our knowledge, this is one of the first studies to qualitatively explore patient and healthcare perceptions of a test for colorectal cancer exclusion in primary care among symptomatic patients.
- The study contributes to the research recommendation question of the recent ACPGBI/BSG guideline on the use of FIT in patients with CRC symptoms, 'Can faecal haemoglobin be combined with other factors/biomarker(s) to improve the accuracy of CRC detection?'
- Research into Raman-FITs clinical effectiveness is ongoing.
- Raman-FIT is currently being trialled in Swansea Bay University Health Board.

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COI: Dean A. Harris declares that they are a cofounder and managing director of CanSense Ltd., an incorporated cancer diagnosis spin-out company from Swansea University (UK Company No.: 11367637). All other authors declare no conflict of interest.

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