

# **Correlation between FIT threshold and Polyp Identification Rate in CTC: Impact of FIT triage on a key performance indicator**

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# Background

CT Colonography is a major tool for patient assessment in the UK National health service

British Society of Gastrointestinal and Abdominal Radiology / Royal College of Radiologists audit standards set in 2021

Polyp identification rate (PIR) is a key performance indicator

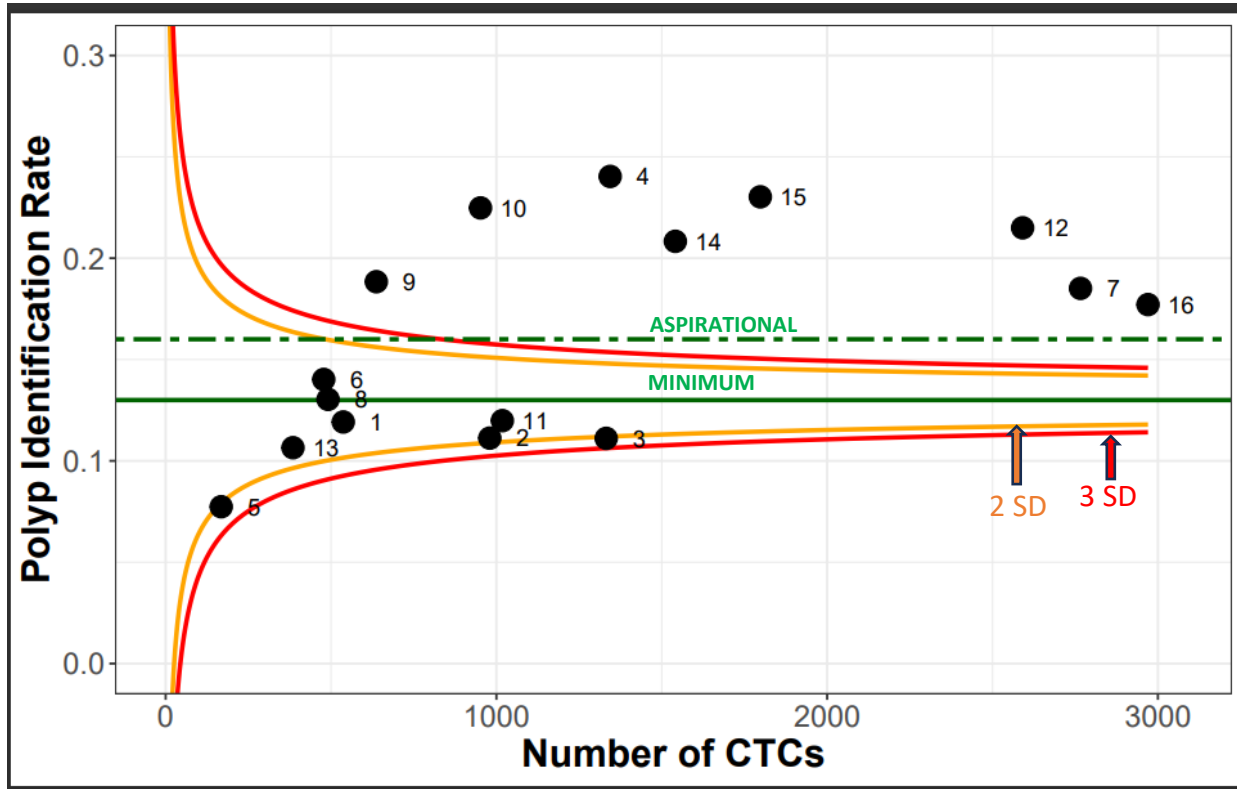
Faecal immunochemical testing (FIT) to triage symptomatic patients

The Bowel Cancer Screening Programme (BCSP) also uses FIT.

# BSGAR/RCR joint audit standard- PIR has universal standards

Quality Standard	Minimum standard	Aspirational target
Percentage of scans rated diagnostic quality of adequate or better (unadjusted)	95%	98%
6 mm+ polyp identification rate (PIR) that is, polyps identified at CTC	13%	16%
Positive predictive value (PPV)	80%	90%
Subsequent endoscopy rate	<25%	n/a
Radiation dose length product (DLP)	Median of <950 mGy.cm	Median of <600 mGy.cm
Proportion of CTCs showing cancer in which same-day staging chest CT is performed	50%	80%

# Results from national CTC audit – PIR



8 sites above aspirational standard (16%)

6 below minimum standard (13%)

**Universal standard regardless of FIT level**

# Method

Retrospective  
Analysis

CTC performed in  
four years

Comparing PIR  
against FIT  
thresholds

Assessing PIR post  
implementation  
of FIT in BCSP

# Results

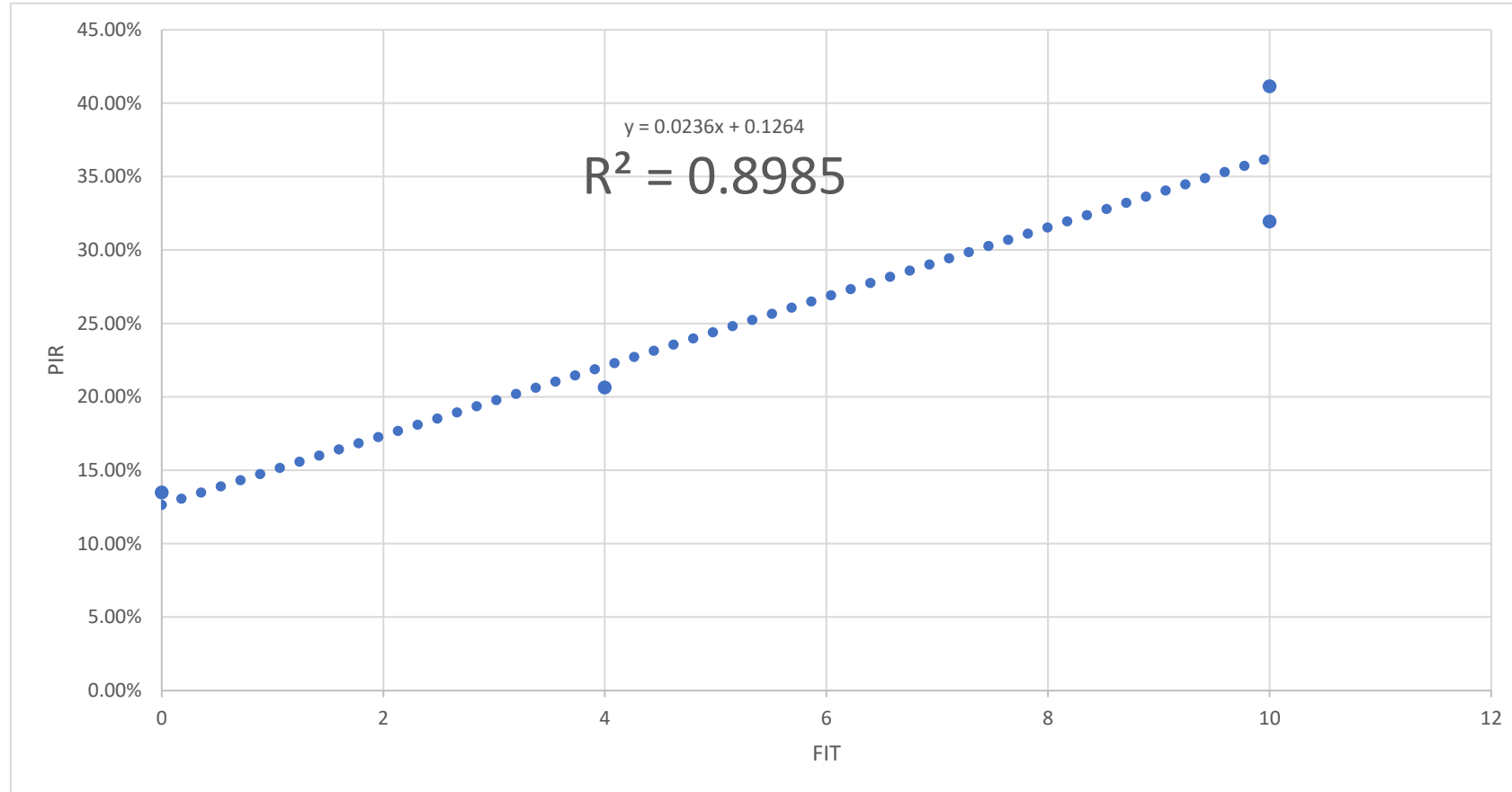
8573 studies

Single centre

Symptomatic  
patients (92%)

Screening  
patients (8%)

# Correlation between PIR\* and FIT



\*Polyp identification rate = 6mm polyp or larger detected

# PIR before and after FIT triage in BCSP

Year	Faecal test	PIR
2019	FOBT*	29.7%
2022	FIT >120	66.3%

P= 0.0001

\* Faecal occult blood testing



# Key points

- Strong positive correlation between the FIT threshold and PIR
- In BCSP there was a significant increase in PIR using FIT triage compared to using FOBT
- **FIT appears to have a significant impact on PIR**

# Recommendations

- More nuanced approach to setting standards
- Correlate the minimal and aspirational PIR standards with FIT levels
- More studies needed to assess the correlation