

Improving diagnostic pathways for patients with suspected colorectal cancer

Executive Summary

Accelerate, Coordinate, Evaluate (ACE) Programme

An early diagnosis of cancer initiative supported by:

NHS England, Cancer Research UK and Macmillan Cancer Support

ACE Colorectal Pathways Cluster

June 2017



The ACE Programme would like to thank the following for their contributions:

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About the ACE Programme

The Accelerate, Coordinate, Evaluate (ACE) Programme is an early diagnosis of cancer initiative focused on testing innovations that either identify individuals at high risk of cancer earlier or streamline diagnostic pathways. It was set-up to accelerate the pace of change in this area by adding to the knowledge base and is delivered with support from: NHS England, Cancer Research UK and Macmillan Cancer Support; with support on evaluation provided by the Department of Health's Policy Research Units (PRUs).

The first phase of the programme consisted of 60 projects split into various topic-based clusters to facilitate evidence generation and learning. The second phase (pilots live from January 2017) comprises five projects exploring Multidisciplinary Diagnostic Centre (MDC) based pathways. The learning from ACE is intended to provide ideas and evidence to those seeking to improve local cancer services. The evaluations and findings are produced independently, and are therefore, not necessarily endorsed by the three supporting organisations

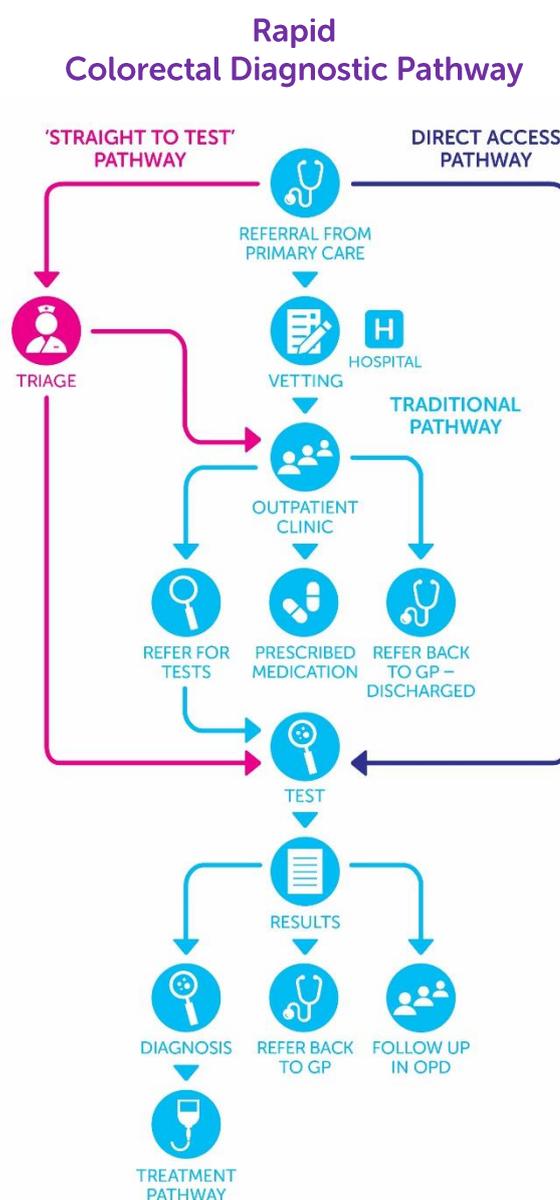
Introduction

The Accelerate, Coordinate, Evaluate (ACE) Programme¹ is organised into a series of thematic clusters; this report summarises the progress of the colorectal (lower GI) pathway cluster. The cluster incorporated local NHS projects focused on the implementation of a **Rapid Colorectal Diagnostic ‘Straight to Test’ (STT) Pathway** following a patient’s symptomatic presentation in primary care.

There is good evidence that STT pathways are more efficient in reducing diagnostic and treatment waiting times and result in improved patient and General Practitioner (GP) experience.^{2a,b,c,d}

Where available, a STT pathway approach involves the co-ordination and delivery of appropriate diagnostic tests to patients, essentially without an initial out-patient clinic appointment in secondary care. A triage STT pathway operates as follows:

- I. Initially patients will see their GP. If the GP decides a patient’s symptoms are appropriate for further investigation they will refer onwards to a hospital provider via the urgent 2 week wait (2WW) referral pathway (as defined by NICE referral guidance NG12)³ or, where cancer is not suspected, via a more routine pathway arrangement.
- II. On receipt of the referral, the provider will contact the patient by telephone from its triage hub, usually operated by a colorectal nurse specialist. The purpose of the triage hub is to confirm the patient’s indication, fitness and willingness to have a definitive test and, aided by an algorithm, decide on the most appropriate investigation e.g., colonoscopy, in partnership with the patient. The triage hub may also arrange for a further telephone call to ensure that patients are fully prepared for their procedure, (e.g., to clarify instructions for bowel preparation).
- III. At triage, if the patient is not suitable for a STT pathway they are booked into a traditional out-patient clinic appointment in secondary care to discuss their symptoms.
- IV. Following the test, the diagnostic service is responsible for deciding on the appropriate next clinical steps, in partnership with the patient. There must be a local policy, agreed with the relevant clinicians, regarding how this is done.



Source: Cancer Research UK

Purpose

The majority of the ACE projects have implemented a triage STT pathway for their 2WW colorectal referrals; some have also offered a STT triage service for their routine referrals. The projects at Croydon and Homerton University Hospitals Trusts explored a diagnostic route more directly from primary care for their routine colorectal referrals.

In introducing a STT pathway approach the projects have essentially tested.... **if the diagnostic interval is shortened in time – from GP referral to the first diagnostic test and recorded cancer diagnosis?** In collaboration with the Department of Health's Policy Research Unit (PRU), the timings of these tests have been evaluated as part of a desirable minimum data set collection.

The report contents will be of particular interest to commissioners of cancer services implementing Best Possible Value (BPV) pathways, designed to incentivise high quality and cost-effective care, working towards the introduction of a mandated best-practice tariff in 2019 for STT pathways.⁴

An economic evaluation of the ACE colorectal cluster will be available shortly in an updated version of this report.

Context

A number of key factors help to set the context for including '**direct and rapid access to diagnostics**' as one of the key concepts of the ACE Programme. The most significant factor is the importance of improving **earlier diagnosis** (and thereby reducing late diagnosis) to radically improve patient outcomes. The analysis and evaluation detailed in this report contributes to understanding which interventions support the earlier diagnosis of cancer, which in turn could be transformative in terms of improving survival rates, reducing mortality and improving quality of life.⁵

Achieving World-Class Cancer Outcomes (A Strategy for England 2015-2020)⁶ suggests this will require a shift towards faster and less restrictive investigative testing, quickly responding to patients who present with symptoms, by ruling out cancer or other serious disease, within 28 days of referral. Delivering this will require a significant increase in diagnostic capacity, giving GPs direct access to key investigative tests, and the testing of new models which could reduce the burden and expectation on GPs.

Summary of key findings and implications

The cluster generated informative data and intelligence from ten NHS projects testing the introduction of STT pathways. Whilst the actual interventions vary slightly, straight-to-endoscopic testing for appropriate 2WW referrals following telephone triage is the most common approach implemented. The following key findings and implications have been recognised by the colorectal projects in developing their STT pathway approach:

Shortened diagnostic intervals

The results vary slightly, but they are sufficiently consistent to indicate that the **diagnostic interval is shortened in time – from GP referral to first diagnostic test** and onwards to a confirmed diagnosis by **around 1-2 weeks**. This acceleration of time to first test and onwards to a confirmed diagnosis is relatively small for the most part, as the comparison in the main is with the 2WW referrals. It is likely that if the eligibility were wider, as for example in the Peterborough, Croydon and London projects, there is potential for a greater advance in the time to first test and diagnosis confirmation.

There was also a considerable reduction in the variability of time to cancer diagnosis following STT introduction. For example, at the University Hospital of Morecambe Bay waiting times for the 2WW referrals awaiting colonoscopy, standard deviation significantly reduced from 42.2 days to 17.8 days, and the 90th percentile fell from 97 days to 63 days.

Out-patient appointment impact

A major benefit of the STT pathway is the removal of the initial outpatient clinic appointment. This was estimable from four of the projects, with the results shown below.

Impact of STT on outpatient appointments

Project	Referral population	Referrals	Outpatient clinic appointments not required (%)
UCL Partners (A22) (Whipps Cross)	Routine	1,318	1,031 (78)
Wirral (A28)	2WW	1,020	655 (65)
Wigan (A68)	2WW	1,388	782 (56)
Morecambe Bay (A80)	2WW	1,944	862 (44)
Overall	Mixed	5,670	3,330 (59)

While the percentages vary considerably, it is apparent that a majority of outpatient appointments can be removed (average circa 59%). It would also appear that the potential for removing such appointments is strongest for the routine rather than for the 2WW referrals.

For some patients an initial **out-patient consultation remains entirely appropriate**, benefiting from a face-to-face out-patient clinic consultation, before any invasive investigation decisions are confirmed. Some patients may present with complex clinical conditions, are frail and elderly, hard of hearing or have other disabilities; in such instances all are offered an outpatient clinic appointment in reserved slots within the maximum 2WW standard. (Note – the Wirral project have commented that since introducing STT, their colorectal outpatient clinic has reduced its ‘Did Not Attend’ rate and is also seeing more complex, highly dependent patients, necessitating the length of the appointment slots to be increased.)

In eliminating the first outpatient appointment it has freed up consultant and associated clinical and nursing staff resource to readjust job plans to include other sessional arrangements, providing a real financial benefit and incentive to sustain the pathway changes.

Improving operational pathway management & quality

The STT approach is reliant on high quality GP referrals, based on the **use of clinical decision support tools**⁷ that facilitate appropriate referral of patients onto the colorectal diagnostic pathway. This requires strong collaboration across the primary and secondary interface to agree the appropriate referral criteria aligned to the NICE 2015 guidance (NG12), educate GPs in how to understand and apply the criteria and use any required technology such as electronic referral and booking systems to streamline the referral processes.

The STT service requires strong clinical leadership with designated responsibility to direct the specialist colorectal clinical and administrative team, especially during the implementation phase of the new pathway arrangements. It essentially requires dedicated time as part of the overall agreed job plan for appropriate members of the team to triage all referrals, using a locally agreed algorithm, to the most appropriate investigation or appointment.

Using such an agreed triage protocol, the University Hospitals of Morecambe Bay has altered its first test option from flexible sigmoidoscopy to colonoscopy, ensuring patients receive the optimum 'best test first', thereby reducing variation and improving patient experience.

The STT pathway has proved to be an extremely flexible model as minimal operational set up is required. No outpatient clinic rooms, clinic preparation, clinic administrative or nursing staff are required. This enables the service to respond flexibly to the increasing demand for colorectal specialist opinion and the inevitable peaks in demand.

Some of the ACE projects have reported that triaging patients to radiology has been more challenging than endoscopy from a clinical perspective. Local radiologists are keen for patients to attend an outpatient clinical assessment prior to booking any radiological investigation, usually CT colonography is considered the most appropriate first investigation. A local protocol and clinical guideline agreed by the colorectal multi-disciplinary team will determine this arrangement.

Improving patient & GP referral experience

One of the most positive benefits the ACE projects have reported has been the high level of satisfaction and experience feedback, from both referring GPs and patients. These benefits include, the avoidance of the initial out-patient appointment, the accelerated time to diagnosis and consequent reduced anxiety and distress for those patients who transpire not to have cancer.

Analysis of patient satisfaction from over 800 returned questionnaires at the Wirral project indicate that 88% of patients are very satisfied overall with the STT service pathway. Similarly at the Barts Health project at Whipps Cross, 94% of patients thought the triage service was very convenient, with 79% preferring the telephone triage to attending the out-patient clinic.

Shared decision-making with the patient is a pre-requisite of the STT triage service with details gathered on additional comorbidities, social support and sedation risk, all helping to improve both the management of and compliance with bowel preparation. Patients are also benefitting from an indirect counselling service as the algorithm includes information on wider health determinants such as health promotion, diet, lifestyle advice, risks and symptom management.

Improving performance management

If a STT pathway is considered appropriate for the 2WW referrals, the appropriate first test must be performed within the mandated two week waiting period. The current national Cancer Waiting Times Monitoring Guidance⁸ states that the 2WW standard is only achieved when the patient is first seen and NOT first assessed at either a 'virtual' clinic or via a telephone triage arrangement. On this basis, implementing a STT pathway for 2WW referrals is extremely challenging.

Given the current constraints in endoscopy units, the ACE projects have been challenged in achieving the required investigation within the 2WW standard – they are more likely to be scoped by day 16/17, with a confirmed biopsy result received a maximum 10 days later. This implication should be considered by the relevant cancer policy teams – (see Recommendation 6) - that introducing STT within current constrained endoscopy units, may mean the 2WW standard is breached, thus failing to incentivise the healthcare system to implement the pathway changes. This should not be considered a failure, rather, that a prospective confirmed diagnosis (following histology) is well within the planned early diagnosis metric of 28 days, and an essential enabler in achieving the 62-day treatment standard when a cancer is detected.

Recommendations

These recommendations are based on the data analysis provided by the Department of Health Policy Research Unit and the intelligence and experience gathered by the ACE projects during the course of their STT pathway implementation:

- 1. Given the beneficial evidence and intelligence gathered by the ACE projects, STT pathways are encouraged.** The recommended approach by the majority of the projects is the triage-STT and this operational arrangement seems to be the favoured option of the professional groups.
- 2. Local evidence should initially be gathered to support the implementation of a rapid colorectal diagnostic pathway.** Undertaking an initial simulation exercise to audit and evaluate how many patients are suitable to go STT, and calculate the required full diagnostic capacity (dedicated slots, workforce etc..) is essential. Whilst acknowledging the limitations of ultimately diagnosing cancer via the 2WW referral route, this defined and manageable cohort represents a good place to start.
- 3. The STT service requires the input of an appropriately trained and experienced senior decision maker** with strong clinical leadership skills to manage the specialist colorectal team. It requires dedicated time as part of the overall agreed job plan for appropriate members of the team to triage and navigate all referrals using a locally agreed algorithm to the most appropriate investigation or appointment.
- 4. The STT triage algorithm needs to confirm the indication for investigation, fitness and willingness to have a definitive test.** If there is more than one queue for diagnostic investigation, then *urgency* could also be part of the triage process. The capacity for each of the investigatory options should be nuanced locally, recognising we should be scoping appropriately and smartly but not everybody. The concept must encapsulate a clinically-sound, locally-agreed algorithm with an option available for face to face outpatient appointment prior to the investigation, if appropriate and developed in line with any further emerging evidence.
- 5. There is an essential prerequisite to engage and collaborate with referring GPs and primary care teams to get high risk patients to diagnostics sooner.** The use of clinical decision support tools are encouraged and a standardised, electronic referral proforma involving the national Electronic Referral Service as outlined by the NHS Standard Contract⁹ should include all available information to inform a decision on the required further investigation.
- 6. There should be a threshold for the proportion of patients that go STT – rather than expecting all to be suitable – which will help to incentivise the system promoting STT.** The colorectal ACE projects suggest that approximately 59% of the 2WW referrals are suitable to go ‘Straight to Test’. However, we need to be careful about over-promoting colonoscopy, acknowledging that CT colonography is a more appropriate test option for some patients.
- 7. There should be consideration by the cancer policy teams that if the telephone triage assessment (usually undertaken on day 2 or 3) results in a patient going straight to a first diagnostic test, the day of the telephone assessment should be considered the first consultation** in meeting national cancer waiting times performance standards. It is anticipated the performance standard that all 2WW referral patients ‘must be seen by a cancer specialist within 2 weeks’ will be removed given the implementation of the 28 day faster diagnosis standard.

8. **The STT criteria should be based on the intent to triage *all patients* to first investigation (prior to an initial out-patient attendance) in as timely a way as possible, with sensitive discussion amongst clinical professions required to alleviate fears of ‘opening the flood gates’.** It is likely that if the eligibility for entry onto the STT pathway is wider, beyond the 2WW cohort, as in the case of the Peterborough, Croydon and London ACE colorectal projects, there is potential for a greater advance in the time to diagnosis. If localities are able to provide this extended service it should be encouraged as there is evidence in the analysis from Peterborough that there is no noticeable increase in demand for endoscopic investigation.
9. **There must be a clear pathway for managing patients post-investigation.** Those patients identified with cancer should have immediate staging investigations, their diagnosis confirmed at MDT discussion, followed by an out-patient appointment to discuss definitive diagnosis and treatment plans. It would be considered good practice for each patient to meet a colorectal clinical nurse specialist (CNS) when the diagnosis is suspected at colonoscopy, mindful of the effects of sedation.
10. **It is anticipated that release of doctors and specialist nurses from running outpatient clinics will potentially enable redistribution to other areas, such as theatre lists and endoscopy.** It is acknowledged that 'freeing up' clinicians to provide yet *more* endoscopy will only work if capacity in endoscopy nurses, room availability and all other endoscopy resources are also available.
11. **A unified approach is required across the NHS, working in collaboration with the NHS National Cancer Programme to develop the required endoscopy capacity and workforce.** The Cancer Strategy 2015–2020 identifies some promising solutions, including additional investment, Health Education England developing a national training scheme for non-medical endoscopists, and a pledge to train an additional 200 more endoscopists by 2018. The ACE Programme endorses these commitments, acknowledges the pace and scale will be determined by the available budget, yet reiterates it is essential the strategy recommendations are implemented without delay.

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Contact ACE

If you have any queries about ACE, please contact the team at: ACEteam@cancer.org.uk
In addition, you can visit our webpage: www.cruk.org/ace where we will publish news and reports.

The ACE Programme
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