GETTING IT RIGHT FIRST TIME

Gastroenterology

GIRFT Programme National Specialty Report

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Foreword from Professor Tim Briggs, GIRFT programme Chair

I am delighted to recommend this Getting It Right First Time review of gastroenterology, led by Dr Beverly Oates.

This report comes at a time when the NHS has undergone profound changes in response to the COVID-19 pandemic. The unprecedented events of 2020/21 – and the extraordinary response from everyone working in the NHS – add greater significance to GIRFT's recommendations, giving many of them a new sense of urgency. Actions in this report, such as ensuring consistent use of senior clinical triage and optimising capacity for specialist work, can help the NHS as it faces the substantial challenge of recovering services, while remaining ready for any future surges, by operating more effectively and safely than ever before.

Dr Oates has applied the GIRFT approach to her field, a specialty which covers both diseases of the digestive tract, and the liver, pancreas and biliary system. A majority of the population will experience a persistent gut complaint in their lives, which can have a major impact on quality of life and contribute to serious ill health and mortality.

This report's recommendations on hepatology are especially useful, as we have seen an alarming five-fold increase in premature death from liver disease for people aged under 65. This premature mortality disproportionately affects the poorest and most vulnerable people in our society, but we know that 90% of all liver disease is attributable to preventable causes.

The recommendations set out in this report are based on the 129 face-to-face and virtual visits Dr Oates made to trusts, in addition to other data, audits and a detailed survey of all trusts in England. Implementing these recommendations will help to optimise our use of existing capacity, reduce waiting times and manage demand for future gastroenterology services, ensuring that patients are referred to the best place for their treatment and avoiding unnecessary investigations or appointments where possible.

It has been encouraging to hear about the engagement and interest that Dr Oates was met with as she carried out her review. I know that the hard work of all staff was very evident to Dr Oates. This is a testament to their dedication to providing excellent gastroenterology services.

Recognising this excellence and collaborative spirit is crucial. GIRFT cannot succeed without the backing of clinicians, managers and all of us involved in delivering care.

My greatest hope is that GIRFT will provide further impetus for all those involved in gastroenterology and its different subspecialties, disciplines and settings, to work shoulder to shoulder to deliver solutions and improvements that will enhance the experience and outcomes for patients.

Professor Tim Briggs *CBE*

GIRFT Programme Chair and National Director of Clinical Improvement for the NHS.

Professor Tim Briggs is consultant orthopaedic surgeon at the Royal National Orthopaedic Hospital NHS Trust, where he is also Director of Strategy and External Affairs.
He led the first review of orthopaedic surgery that became the pilot for the GIRFT programme, which he now chairs.
Professor Briggs is also National Director of Clinical Improvement for the NHS.

Introduction from Dr Beverly Oates

It has been a real privilege to act as the clinical lead for gastroenterology for the GIRFT programme, and to be able to spend time with so many of my specialty colleagues over the past 18 months. It has been sobering to witness first-hand the immense pressures we are all feeling on our time and our resources, especially during the COVID-19 pandemic, but also inspiring to see so many innovative solutions, and to share those learnings in the hope of achieving better outcomes for patients and providers alike.

We are facing unprecedented times in terms of the demand for our specialty, combined with the long-term capacity and consultant recruitment issues that will be all too familiar to many of you. However, throughout our visits (in person and virtual) we saw many reasons to be inspired and hopeful for the future, and many achievements to celebrate.

I would particularly like to highlight the importance of senior clinical decision makers undertaking early specialist triage of referrals for gastroenterology opinions and endoscopy procedures. Senior clinical decision makers are vital to appropriately prioritise patients, ensure the correct care first time and avoid unnecessary appointments and procedures, given the significant pressures on capacity. This enables rapid and safe closure of episodes of care, increasing the productivity as well as the safety and quality of our healthcare provision.

The key memory I will take away from my GIRFT visits is just how welcoming my colleagues have been, all across the country, and how open and embracing they have been to take on change and share inventive ideas. From simple measures, like reducing the doorway width for a day case treatment room so that it fits a hospital trolley but not a hospital bed (where there were particular problems with day case beds being escalated for general admissions), to radical restructures of entire departments, each visit brought new solutions to share and new insight to inform our recommendations.

When I first heard about GIRFT, I felt that it represented something with true transformative power. If we can achieve our twin goals of improving care while saving money, this will represent a definite win-win that our health service so desperately needs and our patients so desperately deserve, as by saving money we can treat even more patients well.

I feel that the GIRFT methodology has gained new relevance during my time with the project, particularly in light of the COVID-19 pandemic. Now, more than ever, we need to work harder to understand and learn from each other. We must maintain focus on sharing our knowledge and experience openly and generously, to most benefit our patients, and each other, for the long term.

If I could highlight one further area from the recommendations presented here, it would be that we need to maximise the specialty capacity we already have, especially as we try to recover from COVID-19. For example: if we can reduce general medical commitments for gastroenterologists, we can release much needed specialist time to provide more gastroenterology clinics, endoscopy lists and six- or seven-day specialist ward reviews and in-reach.

We recognise that this is an extremely busy time for trusts: they continue to deal with ongoing COVID-19 commitments, while also tackling the resulting backlogs in elective care – and all the while need to find the time to implement multiple new initiatives, such as local and national quality improvement initiatives and prevention programmes. In that context, we also recognise that this report itself contains a large number of recommendations and actions. However, I would highlight that many of these recommendations are carefully focused on saving time and resources for gastroenterology departments in the longer term, alongside improving patient care, and GIRFT itself will work with trusts to help them implement the changes. We hope that many of the recommendations will also be familiar to trusts, and the report will give backup and weight to changes that they already wished to make. That is certainly the intention.

A note on COVID-19

The COVID-19 pandemic struck around halfway through our deep-dive visits. This had a disproportionate effect on gastroenterology services, with cancellation of almost all elective activity, including already pressured gastroenterology clinics and endoscopy lists. Meanwhile, so many colleagues gave their time to general medicine duties as part of the national effort to control the virus and prevent as many COVID-19 deaths as possible.

We immediately stopped our physical face-to-face GIRFT visits to trusts at the start of the crisis. However, I was very glad to be able to continue our visits virtually once the initial peak of the pandemic was over. Our priority to help recover our gastroenterology services was so important, to reduce the risk of us ending up with even higher numbers of adverse outcomes for non-COVID-19 patients than we have sadly already seen for those with COVID-19.

Dr Beverly Oates *MBChB, FRCP, MD*

Dr Beverly Oates has been a Consultant Physician and Gastroenterologist at Wirral University Teaching Hospital NHS Foundation Trust (WUTH) since 2003 and has been Clinical Service Lead for gastroenterology and endoscopy at WUTH.

Dr Oates was Training Programme Director for gastroenterology in Mersey for 11 years, and National Recruitment Lead for gastroenterology for ten years. She is Chair of the British Society for Gastroenterologists (BSG) Training Committee and is on the Gastroenterology Special Advisory Committee, BSG Executive Committee and BSG Council, as well as the Joint Advisory Group for Gastrointestinal Endoscopy (JAG) Committee. In 2015 she was named as the HSJ Clinical Leader of the Year in recognition of her national, regional and local leadership achievements.

In her spare time, she has been a trustee at Wirral Hospice for nine years, and Deputy Chair of the Board of Trustees at Wirral Hospice for six years.

Statement of support

The British Society of Gastroenterology

The British Society of Gastroenterology welcomes the publication of this report. It reflects a huge commitment by the GIRFT team, led by Dr Oates, to analyse the delivery of services across England, review unwarranted variation in practice and identify how we need to adapt to keep pace with rising demand.

Gastroenterology has developed and expanded at a greater rate than any other acute medical specialty over the past 30 years. Many conditions that previously required surgical intervention can now be assessed and treated through endoscopy. Proactive programmes of support for patients with gastrointestinal conditions, alongside national screening programmes, mean we can now detect and treat more patients earlier, vastly improving their quality of life. In addition, hepatologists have introduced highly effective treatments for viral hepatitis – but face an increase in demand for their service in other areas, such as autoimmune liver disease, alcohol-related liver disease and non-alcoholic fatty liver disease. Gastroenterologists are also responsible for the provision of most specialist nutrition services. However, it is clear that if we are to continue to keep pace with medical advances, our specialty needs to adapt to ensure our expertise is directed appropriately.

The recommendations in this report could not be more timely, as services across the country begin to restore elective activity severely disrupted by the COVID-19 pandemic. As the report clearly sets out, clinicians and managers working in gastroenterology services should now seek to prioritise and streamline specialty work, while ensuring that patients are triaged appropriately to minimise any delay to their care.

The BSG looks forward to supporting its members in embedding these recommendations in their everyday practice. We will continue to work closely with the GIRFT team on the longer-term ambitions set out in the report, to ensure we can deliver the high-quality care our patients deserve. We will also explore how to ensure the devolved nations can benefit from GIRFT's findings and recommendations.

Dr Alastair McKinlay
BSG President 2020-2022

BRITISH SOCIETY OF GASTROENTEROLOGY

Executive summary

Gastroenterologists care for patients with disorders of the gastrointestinal tract, liver, pancreas and gallbladder. There are two main subspecialties, both of which are covered in this report: luminal, covering the main digestive tract, and hepatology, which covers the liver, pancreas and biliary system.

Gastroenterologists are usually dual accredited, meaning they can practise general medicine as well as their own specialty.

Who sees gastroenterologists?

Gastroenterology has a particularly wide reach: research in 2018 showed that 69% of the population have experienced some sort of persistent gut complaint[1], and gastrointestinal complaints account for 10% of consultations in primary care[2]. Collectively, digestive diseases are also a factor in 1 in 8 deaths in the UK[3].

Critically, gastroenterology and hepatology conditions are becoming more prevalent, partly due to lifestyle changes in the population, such as increases in obesity and harmful drinking. Liver disease in particular has continued to rise steadily for decades, while deaths due to other major killer diseases, like cancer or heart disease, have decreased. Liver disease is the biggest cause of death in those aged between 35 and 49, and the third leading cause of premature death[4]. 90% of liver disease is due to obesity, alcohol misuse or viral hepatitis[5]. People who live in more deprived areas are up to six times more likely to die of liver disease than those who live in wealthier areas[6].

Patient embarrassment and stigma around supposedly 'self-inflicted' disease is a particular challenge for gastroenterology. Patients may be reluctant to discuss their bowels or harmful habits, worried about results, or concerned about the invasive nature of investigations such as endoscopy. This means that proactive programmes, community outreach and sensitive, personalised care are especially important in preventing further worsening of disease.

Gastroenterology in practice

Most acute hospitals will have a gastroenterology department, although these vary considerably in size – in our research, the number of Whole Time Equivalent (WTE) clinical staff ranged from 7.4 to 90.5.

Gastroenterology is a highly investigational specialty, which includes using blood tests, X-rays, scans and endoscopy to identify problems. Gastroenterologists work:

- in clinics (in person or, increasingly, virtually);
- in endoscopy, diagnosing and treating symptomatic patients as well as screening asymptomatic patients;
- on wards, treating patients with gastrointestinal symptoms in gastroenterology wards and on other wards, as well as carrying out general medicine duties.

Capacity and gastroenterology

Gastroenterology has developed and expanded at a greater rate than any other acute major medical specialty over the past 30 years[7]. This is due in part to increased demand for both diagnostic and therapeutic endoscopy, and the drive for earlier cancer diagnosis, including the introduction of screening tests. Key among these screening tests is the expanding NHS National Bowel Cancer Screening Programme (NBCSP).

Like many specialties, gastroenterology also suffers from problems with recruitment, with 43% of advertised gastroenterology and hepatology posts unfilled in 2018; this means it is struggling to expand in line with demand in all areas.

Gastroenterology relies on staff working additional hours, insourcing and outsourcing. This strain on the workforce was evident before the COVID-19 pandemic – but in its wake, the huge backlogs created in endoscopy in particular will worsen workforce issues, increasing the likelihood of staff 'burnout'.

[1] *The State of the Nation's Gut: A report summarising the Love Your Gut 2018 research findings (2018) http://loveyourgut.com/resources/love-your-gut-report-2018.pdf*

[2] *Jones R. (2008) Primary care research and clinical practice: gastroenterology*

[3] *Cited on https://gutscharity.org.uk/*

[4] *Cited on https://britishlivertrust.org.uk/about-us/media-centre/statistics/*

[5] *Cited on https://britishlivertrust.org.uk/about-us/media-centre/statistics/*

[6] *From Professor Stephen Ryder's foreword to The alarming impact of liver disease (2019), The British Liver Trust*

[7] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

Optimising capacity

Due to the capacity issues discussed above, our report makes several recommendations aimed at expanding capacity throughout gastroenterology. This will become even more important in the post-COVID-19 era, as trusts tackle their extensive backlogs. Even pre-COVID-19, we found extensive variation in waiting times – for example, waiting times for a new patient appointment in a gastroenterology clinic varied from 1 week to 27 weeks.

Service design and workforce organisation

Six- or seven-day services and extended hours

- We highlight the need to further develop six- or seven-day services, and also consider three-session days. These will help to tackle capacity across gastroenterology, but particularly in endoscopy lists, and improve patient flow throughout the hospitals.
- It is important that these extra sessions are properly job-planned and resourced, including extra recruitment where necessary, and do not rely on further additional hours from existing staff.
- Weekend services should also be planned to make the best possible use of employed staff rather than agency staff or staff on enhanced pay wherever possible.
- Trusts also need to plan weekend services so that both weekday and weekend slots are used effectively – prioritising weekday slots, as these are generally more cost-effective.

Consultant clinic time and follow-up

- Consultants' job planning needs to allow for enough time for clinic-related work. Currently consultants may focus more on endoscopy lists in order to drive down waiting lists, because they are not being given enough time to deal with the greater administrative burden and higher levels of follow-up work associated with taking on additional clinics.

Reviewing leadership and Programmed Activities for consultants and other staff

- Trusts also need to prioritise enough leadership time in consultant job plans, in line with the British Society of Gastroenterologists (BSG)'s guidance on job planning[8]. We found that many departments were not allocating appropriate leadership time to consultants.
- Consultants can use this leadership time to undertake a range of tasks that we outline in the report, from developing plans to keep their workforce sustainable, to developing regional networks, to communicating with primary care colleagues.

Using effective multidisciplinary teams (MDTs)

- Throughout the report, we recommend using multidisciplinary teams (MDTs) to help plan capacity, improve patient outcomes, improve training, and provide more holistic care.

Looking at the role of gastroenterologists in general medicine

- As most gastroenterologists are dual accredited in gastroenterology and general medicine, their job plans often incorporate a general medicine component.
- The diversion of specialist gastroenterology resources to general medicine can result in the increased use of higher-cost locum or agency doctors to deliver gastroenterology and endoscopy capacity.
- There is also an impact on specialists' morale, as clinicians would rather be treating the gastroenterology patients that they have had specialist training to help. This can have a knock-on effect on recruitment and retention of staff.
- We recognise that gastroenterologists will continue to need to take on some general medicine, particularly early in their careers. However, we recommend that trusts come to a mutually acceptable compromise on general medicine commitments.

[8] *BSG (2020) Consultant gastroenterologist job planning guidance www.bsg.org.uk/job-planning-guidance/consultant-gastroenterologist-job-planning-guidance/*

Allocating staff efficiently to tackle long waiting lists

- We found that many trusts use locum doctors and other insourcing and outsourcing options to tackle waiting lists.
- This is partly due to trusts wishing to achieve or retain Joint Advisory Group on Gastrointestinal Endoscopy (JAG) accreditation, and also meet Referral To Treatment targets.
- Trusts need to review the most cost-effective way to deal with waiting lists, using employed staff wherever possible.

Maximising the effective use of clinical time

Reducing the number of patients who do not turn up for appointments

- 'Did Not Attends' (DNAs) are a particular issue for gastroenterology, and especially in hepatology. We found that hepatology has the highest DNA rate out of all the specialties we looked at, at 11.7%.
- We suggest various interventions to counter high DNA rates throughout our report.

Personalised care planning

- We recognise that clinicians may be able to plan care around patients' needs more effectively, in order to remove barriers such as embarrassment, perceived stigma about their condition, inconvenience from multiple appointments, access issues, and available facilities to meet their needs.
- Virtual clinics are a key part of this, especially post-COVID-19, but we detail other potential solutions in our report.

Ensuring patients do not need to be turned away from endoscopy appointments

- We suggest ways to prevent patients being turned away from endoscopy appointments. This is often because patients have not been prepared correctly for their procedure, or are not suitable for the test.
- Pre-assessment and clear patient information can help to prevent unsuccessful endoscopy appointments – improving outcomes for patients as well as making the most of available capacity.

Managing patient demand

We look at ways to triage and prioritise referrals so that only patients who need to attend hospital do so – which is particularly important in order to minimise COVID-19 transmission. We also focus on ensuring that all appropriate pre-investigations have been carried out.

Managing referrals

Improving triage by using a Clinical Assessment Service

- We strongly recommend using a Clinical Assessment Service (CAS) to prioritise outpatient referrals, ensure that patients are referred to the correct clinic (or direct to test), and ensure that appropriate pre-investigations have been carried out.
- Using a CAS should help to tackle waiting times, ensure that patients are discharged from clinic at their first appointment where possible, and redirect some patients to more appropriate services.
- We also highlight other triage solutions, such as increasing the use of Advice and Guidance services.

Increasing collaboration with providers and patients, and providing alternative pathways

Collaborating with primary care colleagues

- Throughout the report, we recommend ways to integrate primary and secondary care, seeing primary care colleagues as part of a multidisciplinary team (MDT).
- Bearing in mind advice from some of the charities that support gastroenterology patients, we recommend ways to further support primary care services.

Considering closer working between specialties

- We look at the possibility of creating Integrated Care for Digestive Diseases services, to better integrate gastrointestinal medical and surgical services and raise awareness of how gastroenterology supports surgery.

Supporting self-management and patient activation

- We look at ways for clinicians to help patients develop skills, knowledge and confidence to manage their conditions more effectively, including looking at advice from charities that support gastroenterology patients.

Sharing decision making about gastroenterology interventions

- Linked to supporting self-management, we also emphasise the need for clinicians to work towards shared decision making with patients.
- Part of this involves managing patients' expectations about what gastroenterology interventions can achieve, and working with primary care colleagues to clarify to patients how conditions can be managed in a primary care setting.

Providing access to alternative pathways

- We look at how trusts can provide alternative ways to access advice and treatment, including direct access tests, specialist nurse-led or dietician-led clinics, and the use of non-invasive testing.

Endoscopy

The themes of optimising capacity and managing patient demand are especially relevant to endoscopy, where waiting lists – already long in some areas – have been dramatically increased by COVID-19 restrictions.

Endoscopy in general

Land-locked units

- We look at the problems that some trusts have in expanding endoscopy due to having no space to add additional endoscopy rooms.
- We suggest ways to use rooms efficiently, and also recommend that national bodies review options to support trusts that cannot currently expand endoscopy capacity.

Improving patient flow in the rest of the hospital: the impact of endoscopy list delays

- In some trusts, we found staff were finding it difficult to leave slots on their endoscopy lists available for inpatients.
- Having explored different models of delivering inpatient endoscopy in our visits, we suggest that trusts audit their inpatient endoscopy demand and select the best model to meet this demand.
- We also emphasise the need for senior clinical decision makers to triage inpatient endoscopy referrals.

Gastroscopy

Increasing use of pre-investigation testing for Helicobacter pylori

- We found evidence that there may be variation in testing for and treating H. pylori infection in patients, even though this is recommended in NICE guidelines.
- We recommend that H. pylori is tested for and treated appropriately by GPs and trusts before referral for gastroscopy. This will prevent unnecessary gastroscopies and improve patient outcomes.
- We also highlight the need to test for H. pylori during gastroscopy where appropriate.

Lowering use of gastroscopy

- We saw variation in the proportion of patients under 55 having gastroscopies. In some trusts, over 40% of the gastroscopies performed were in patients under 55.

- We re-emphasise the NICE guidance already in place that suggests GPs try other solutions (such as a trial of treatment for reflux) to resolve symptoms in patients under 55 (unless they have 'red flags' for cancer or other appropriate indications).
- We also recommend that trusts work with GPs to clarify referral pathways, including using the Advice and Guidance service, and to help them explain treatment options to patients.

Considering alternative methods for gastroscopy

- We noted that some patients who have difficulty tolerating a 'regular' gastroscopy may benefit from transnasal endoscopy that bypasses the gag reflex, and recommend that trusts consider this – potentially using a regional specialist centre.

Colonoscopy

Managing access to colonoscopy

- We note that trusts need to manage access to colonoscopy carefully, and also need to ensure that GPs are using two-week wait pathways appropriately. Implementing a CAS will help with this process.

Targeting colonoscopy referrals

- We recommend that trusts examine their conversion rates – the proportion of patients diagnosed with bowel cancer during colonoscopy.
- Trusts need to interrogate their conversion rates in the context of the nature of their practice, to examine any underlying concerns that are skewing their rates inappropriately, and address these.

Assessing whether a colonoscopy is appropriate

- We looked at the issue of whether colonoscopies are being carried out on patients who are too unwell or too frail to benefit from the procedure. We found variation in the 30-day mortality rate for patients who had undergone a colonoscopy, and in the proportion of colonoscopies carried out in patients aged over 80.
- We therefore recommend that trusts review how well or how frail a patient is, and whether they are an inpatient or an outpatient, before deciding whether a colonoscopy is the most appropriate test for them.
- Trusts should consider any of the following options as appropriate: deferring colonoscopy until a patient has improved, replacing colonoscopy with alternative pathways (such as CTVC or regular CT – see below), or considering conservative or symptomatic management in vulnerable patients, as appropriate to their health status.

Improving triage for CT and CTVC vs colonoscopy

- Linked to the point above, we recommend that trusts consider increasing their capacity for CTVC, a non-invasive alternative to colonoscopy, which may be more suitable for some patients, depending on their health status.
- We found wide variation in how many CTVC procedures trusts were carrying out, compared to colonoscopy. This may reflect some of the capacity challenges currently facing imaging and endoscopy services.

Investigating why bowel cancer has been diagnosed following an emergency admission

- We found that in some trusts almost a third of patients being diagnosed with colorectal cancer appeared to have been diagnosed as an emergency.
- We therefore recommend that trusts carry out a Root Cause Analysis or audit to identify the cause whenever colorectal cancer has been diagnosed following an emergency admission, and address any problems found, to improve access to elective care services.

Reviewing Post-Colonoscopy Colorectal Cancer rates, and surveillance of high-risk patients

- We found that Post-Colonoscopy Colorectal Cancer (PCCRC) rates varied between trusts from 3.31% to 12.05%, with rates being much higher among patients with Inflammatory Bowel Disease (IBD).
- We recommend that trusts carry out a Root Cause Analysis or audit of all cases of PCCRC to identify themes to target quality improvement for their colonoscopy service.

- We suggest a range of measures to help prevent PCCRC, including proactively managing patients with IBD, and running dedicated dye-spray surveillance colonoscopy lists for these patients.
- We also recommend keeping a register of higher-risk surveillance patients, such as those with Lynch Syndrome, with a surveillance lead assigned to co-ordinating this, and avoiding delays to surveillance in these patients. We recommend that trusts vet all their surveillance colonoscopy cases against the latest BSG guidelines, to ensure that patients who no longer need surveillance can be discharged, freeing up capacity for higher-risk patients.
- We also recommend putting in place a multidisciplinary team for complex polyps.

Liver, pancreas and biliary system (hepatobiliary)

Rates of liver disease continue to rise, and therefore liver conditions are likely to form an ever larger proportion of gastroenterologists' workload. We focus on ways to meet this increase in demand. We also look at ways to use Endoscopic Retrograde Cholangio-Pancreatography (ERCP) more safely.

Liver disease

Managing liver disease proactively

- Liver disease often leads to multiple hospital admissions, and sometimes long hospital stays. A quarter of Alcoholic Liver Disease (ALD) patients die within 60 days after an emergency admission[9].
- We saw variation in how well trusts managed patients at risk, including whether they risk-reviewed patients, and how many patients were admitted with ALD as an emergency. In some trusts, nearly all ALD admissions were emergencies.
- We recommend that trusts undertake proactive management to reduce their emergency ALD admissions, to reduce complication rates and length of stay, and to improve patient outcomes.
- Trusts also need to screen emergency admissions for their alcohol intake and refer high users to an alcohol care team.

Improving access to liver disease support services

- We found that trusts had variable access to alcohol support and community detox services.
- In this section of the report, we recommend various ways that trusts can improve access to liver disease support.
- Key to this is ensuring that they have enough hepatology and substance misuse specialist nurses. In our research, we found that a relatively small proportion (11.4%) of gastroenterology specialist nurses were hepatology specialist nurses, and 7.9% were alcohol and drug misuse specialist nurses.

Improving screening: preventing bleeds from varices

- We found variation in the proportion of patients having varices treated as an emergency, with several trusts performing over 80% of variceal banding as emergency admissions.
- We recommend that trusts consistently offer gastroscopy to patients with cirrhosis to identify any varices, so they can start prophylactic treatment or treat large varices with banding.
- If a patient has needed treatment for variceal bleeding before, trusts need to put in secondary preventative measures to reduce the risk of another bleed, such as a day case banding programme to eradicate the varices. This should help to reduce the proportion of emergency admissions with variceal bleeding.

Using national initiatives to drive up quality

- We note that, at the time of our research, not all trusts were signed up yet to the Improving Quality in Liver Services (IQILS) accreditation. This initiative was set up to drive up quality and to address increasing mortality in liver disease. Trusts should register and work towards IQILS accreditation, if they have not yet done so.

[9] *Roberts, S., John, A., Brown, J. et al (2019) Early and late mortality following unscheduled admissions for severe liver disease across England and Wales www.ncbi.nlm.nih.gov/pmc/articles/PMC6519290/*

Managing Alcohol-Related Brain Injury

- We recommend that trusts include assessment of whether a patient has, or is at risk of, an Alcohol-Related Brain Injury (ARBI) during proactive management of patients with ALD.
- Trusts should also consider whether ARBI patients can be managed within the community. According to our questionnaires, only 7% of trusts 'frequently' or 'always' have access to a community ARBI service, with the majority (58%) saying they 'never' have this access.

Improving access to best practice fibrosis assessment via fibroscan or blood tests

- It is now often possible to assess fibrosis via blood tests or non-invasive ultrasound elastography, such as fibroscan. We found that use of fibroscans varied across trusts.
- We encourage trusts to increase their use of non-invasive screening and assessment for liver disease, with blood tests and fibroscans where possible, using NICE's *Guidance on using fibroscans (MIB216)*[10] to help them focus its use.

Reducing complications from draining ascites

- We saw variation between trusts in the rates of liver disease complications, including in the complication rates for draining ascites.
- We recommend that trusts manage patients with ascites proactively, for example by offering drainage as a day case procedure where appropriate. This will reduce the number of emergency admissions and readmissions for ascites.

Improving the use of cirrhosis care bundles, discharge checklists and specialist follow-up to standardise and improve care

- We encourage the use of cirrhosis care bundles – a list of recommended care within the first 24 hours of patients being admitted to hospital as an emergency with decompensated cirrhosis – and a discharge checklist when patients with cirrhosis leave hospital.
- These checklists can help to ensure that appropriate treatment and follow-up care are both in place, including prophylactic antibiotics to prevent Spontaneous Bacterial Peritonitis, where appropriate. We found potential variation in how well trusts identify and treat this condition.
- We also suggest that all patients who have been admitted with decompensated liver disease are booked for a specialist follow-up review.

Endoscopic Retrograde Cholangio-Pancreatography (ERCP)

Using ERCP appropriately

- We found a significant 30-day all-cause mortality rate following ERCP tests. The national average is 4.2%, with a range from just over 0% up to 8.5%.
- As ERCPs are invasive and high-risk, we recommend that these tests are only carried out with therapeutic intent, and that they should not be used as purely diagnostic tests. However, we found that some trusts were performing a significant number of ERCPs where no therapeutic procedure was coded, suggesting these may have been purely diagnostic tests.
- We also suggest that clinicians consider safer alternatives to ERCP, such as Endoscopic Ultrasound Scan (EUS) or Magnetic Resonance Cholangio-Pancreatography (MRCP), if this is just for diagnostic purposes.

Improving ERCP safety

- We recommend improving ERCP safety by consolidating services and using an ERCP multidisciplinary team (MDT). This is in line with *ERCP – The Way Forward*[11] standards framework by the BSG.
- We also recommend that clinicians should carry out careful vetting and pre-assessment for ERCP patients, using the ERCP MDT meetings where appropriate.

[10] *www.nice.org.uk/advice/mib216*

[11] *Wilkinson, M. et al. (2014) ERCP – The Way Forward, A Standards Framework. British Society for Gastroenterology. www.bsg.org.uk/resource/ercp---the-way-forward--a-standards-framework-pdf.html*

Creating regional ERCP networks with specialist centres

- We found that there was variation in the proportion of ERCPs carried out for stone disease across the country. This may suggest that there is variation in the ability of endoscopists to clear the bile ducts of stones first time.
- Trusts may need to check whether they have high levels of repeat ERCPs for stone disease, which may indicate a low success rate for first-time removal of stones. If this is the case, they should consider how they can improve this rate.
- One solution for trusts showing low success rates could be to create a regional network, run using the ERCP MDTs.
- Regional ERCP networks could help with focusing expertise, supporting out-of-hours provision, and improving how ERCPs are carried out. They may also be a useful way to optimise radiology resource.

Performing ERCPs as day cases

- We found variation in the rate of ERCPs performed as day cases, with some centres showing very low rates of day case ERCPs. These trusts may need to review their ERCP pathways to ensure they are performing ERCPs as day cases wherever possible, as this will avoid unnecessary overnight stays and improve patient flow.

Scheduling ERCPs to ensure patients recover safely

- Wherever possible, day case ERCPs should be scheduled to be carried out in morning lists. When ERCPs happen in the afternoon, it is more likely that patients will need to stay overnight to recover. This means that their recovery does not take place on the endoscopy unit, with experienced endoscopy nurses or endoscopists on hand to spot signs of complications.
- We found that in some trusts a large proportion of ERCPs planned as day cases were then coded as overnight stays. This may be due to a coding issue, but trusts may need to interrogate their own data to check whether day case ERCPs are staying overnight, and address any underlying issues.

Tracking biliary stents

- We found that only 62% of trusts were running a database to track patients with removable biliary stents and to ensure these patients are booked in to have their stents removed.
- Trusts need to ensure they are tracking stents properly and checking that patients have them removed on time, as if the stent is not removed in time this can lead to biliary sepsis, which is a life-threatening condition.
- Trusts may also need to improve patient information, so that patients with biliary stents are aware of the risks and symptoms of biliary sepsis and seek help, or chase follow-up appointments, as needed.

Luminal gastroenterology

In this section of the report we focus primarily on Inflammatory Bowel Disease (IBD). In particular, we looked at the value of proactive management, which helps to improve quality of life, reduce complications, preserve bowel function and reduce the need for surgery such as colectomy.

Managing IBD patients proactively

Managing patient flare-ups proactively to prevent emergency admissions

- We looked at the proportion of patients admitted with IBD as an emergency, and found that in some trusts over 20% of IBD admissions were as an emergency.
- Emergency admissions suggest that the patient may have been unable to access clinic or support services for a flare-up of their symptoms.
- Our questionnaires showed most trusts (98%) have IBD helplines in place, but the nursing infrastructure surrounding them was variable.

Managing colitis to reduce surgery

- We found that there was variation in the rate of colectomies for IBD across trusts, although in general the rate was low.
- We suggest ways that trusts can continue to manage colitis and drive down colectomy rates, including establishing an Acute Severe Colitis (ASC) pathway. 78% of trusts in our questionnaires had this in place, but the pathways were not always used reliably.

Nutrition support

Wherever possible and safe, patients should take nutrition by mouth (orally). However, if a patient is unable to do this well enough, they may need nutrition support. This can be provided in two ways:

- placing a tube into the stomach or small intestine (enteral nutrition): common examples of these are nasogastric (NG) feeding and Percutaneous Endoscopic Gastrostomy (PEG) feeding;
- using the blood circulation, by placing a vascular access device into a vein (parenteral nutrition): if all nutrition is provided this way, this is Total Parenteral Nutrition (TPN).

We looked at how nutrition support services are staffed and the levels of complications experienced.

Improving nutrition support infrastructure and identifying patients who need support

- We found that provision of nutrition support varied across trusts. 16.7% of trusts had no nutrition support team at all, while 25% of trusts had no dedicated nutrition specialist nurses.
- We also found that only 9% of gastroenterology specialist nurses (Whole Time Equivalents) were nutrition specialist nurses, and only 2% were PEG nurses. However, *NICE clinical guideline CG32 on nutrition support for adults*[12] states that all acute hospital trusts should employ at least one nutrition specialist nurse.
- We also found that many hospitals did not have consultant-led nutrition ward rounds on every acute site looking after patients who needed nutrition support. We recommend that at least some nutrition ward rounds are consultant-led.

Identifying patients who need nutrition support

- We found variation in how trusts screen patients to identify those who are suffering from or at risk of malnutrition, and recommend that trusts carry out screening more consistently.

Looking at complications in nutrition support

- Both PEG and TPN carry a relatively high risk of complication, including bleeding, infection around the point where a vascular access device or a PEG tube is inserted, or blood infections.
- We found variation in complication rates for PEG and TPN nutrition support services. However, HES data for both services is limited, which we discuss in this section.
- 30-day all-cause mortality for PEG varied from 0% up to 40%, with a national average of 10.39%. This data included deaths in the community as well as in hospital. The complication rate recorded in HES for PEG ranged from 3% to 47%, with a national average of 18.69%.
- For TPN, we looked at the rate of Catheter Related Blood Stream Infections (CRBSIs – sometimes known as line infections), which are an important quality metric for nutrition support services. We found rates of CRBSI recorded in HES varied, with some rates higher than 15%.

Reducing complications in nutrition support

- We look at various ways that trusts can reduce complication rates in nutrition support, including by improving nutrition support infrastructure.
- We recommend that trusts ideally use dedicated vascular access nurses or nutrition specialist nurses to look after vascular access devices (where this is possible for the trust).
- We also suggest upskilling ward nurses to improve care of vascular access devices.
- Trusts should also consider co-locating patients who need parenteral support in a dedicated area of a ward or nutrition unit where practical. This can also help with upskilling ward nurses and sharing best practice.

[12] *www.nice.org.uk/guidance/cg32*

Recommendations

Optimising capacity

Recommendation	Actions	Owners	Timescale
1. Revisit working practices and service organisation to maximise workforce capacity.	**a** Introduce more six- or seven-day services and extended hours for inpatient ward rounds and endoscopy.	Trusts	Within 18 months of publication
2. Review contractual arrangements for gastroenterology staff to create efficiencies and address long waiting times for outpatient services.	**a** Review consultant job plans to allow for more effective use of Direct Clinical Care (DCC) time, including by considering annualised job plans, timetable flexibility and backfill to allow for additional cover.	Trusts	Within 6 months of publication
	b Review consultant job plans to ensure there is a mutually acceptable balance in commitments to gastroenterology and to reduce general medicine commitments where possible. Where this increases elective work and leads to more radiology and pathology requests, ensure this is planned and resourced.	Trusts	Within 6 months of publication
	c Agree an appropriate allocation of leadership Programmed Activities (PAs) in relevant consultants' job plans to lead gastroenterology as a service, endoscopy as a service, training in endoscopy, and surveillance services (as appropriate for the trust's needs).	Trusts	Within 12 months of publication
3. Optimise outpatient and day case services, maximising the effective use of clinical time.	**a** Look at ways to reduce Did Not Attends (DNAs) and cancellations using existing *NHS Improvement guidance* and *NICE clinical guideline CG138* to help optimise capacity and reduce waiting times.	Trusts	Within 12 months of publication
	b Review pre-visit patient information provision to reduce the risk of patients having to be turned away at attendance or admission.	Trusts	Within 12 months of publication
	c Consider ways to personalise care planning around the patient's needs so they are more motivated and more able to attend appointments.	Trusts	Within 12 months of publication

Managing patient demand

Recommendation	Actions	Owners	Timescale
4. Consider triaging solutions to direct referrals appropriately and improve outpatient waiting times.	**a** Implement a Clinical Assessment Service (CAS) with senior clinical decision maker triage to review outpatient department referrals, and ensure there is budget and job-planned time allocated for running this.	Trusts, CCGs	As soon as possible after publication
	b Clarify the differences between a gastrointestinal medical clinic and gastrointestinal surgery clinic in the Electronic Referral Service.	NHS Digital, Electronic Referral Service	As soon as possible after publication

Managing patient demand (continued)

Recommendation	Actions	Owners	Timescale
5. Work with primary care colleagues to improve awareness of and access to alternative services, support self-management and shared decision making with patients, and manage expectations and understanding of referral pathways and the value of interventions.	**a** Review access to services and consider whether to introduce additional services to ease waiting lists, such as supported self-management, direct access endoscopy (in line with *NICE guideline NG12 on Suspected cancer: referral and recognition*) or nurse-led dyspepsia clinics.	Trusts, primary care providers	Within 12 months of publication
	b Refer patients to appropriate resources for self-management and self-education (patient activation), and support shared decision making.	Trusts, primary care providers	Ongoing
	c Manage patients' and primary care colleagues' expectations and understanding about gastroenterology interventions to reduce the likelihood of inappropriate referrals.	Trusts, primary care providers	Ongoing

Endoscopy

Recommendation	Actions	Owners	Timescale
6. Review and expand endoscopy capacity by revisiting working models, waiting lists and departmental resources.	**a** Monitor inpatient endoscopy demand, and explore using different models to manage demand, such as emergency and elective lists.	Trusts	Within 6 months of publication
	b Liaise with NHS England and NHS Improvement to review options, including possible financial incentives, to support trusts to expand their physical endoscopy capacity (that is: endoscopy rooms, recovery areas or other necessary space) to meet growing pressure on services.	GIRFT, NHS England and NHS Improvement	Within 18 months of publication
7. Improve testing for and treatment of H. pylori.	**a** Ensure that H. pylori is tested for where patients have dyspepsia or upper gastrointestinal symptoms, but no cancer 'red flags' or other appropriate indications requiring gastroscopy.	Primary care providers, trusts	On publication
	b Ensure that where H. pylori is present, it is treated to eradicate it, and referral only made where symptoms persist.	Primary care providers, trusts	On publication
	c Ensure endoscopists check for H. pylori infection (using the rapid urease test where available), as appropriate during gastroscopy.	Trusts	On publication
	d Ensure H. pylori results are accurately recorded and coded.	Trusts	On publication
8. Review usage of gastroscopy, particularly in younger patients (under 55s).	**a** Consider reviewing evidence and referral criteria for use of gastroscopies more generally in line with NHS evidence-based interventions programme and existing NICE guidelines.	NHS England and NHS Improvement, GIRFT, BSG, NICE	Initial discussions to take place within 12 months of publication
	b Vet all referrals using *NICE guideline NG12 on cancer referrals* to ensure patients meet the criteria required.	Primary care providers, trusts	On publication

Endoscopy (continued)

Recommendation	Actions	Owners	Timescale
8. Review usage of gastroscopy, particularly in younger patients (under 55s). (continued).	**c** Alternatively, where direct-to-test pathways are used and not vetted, make the indications for gastroscopy very clear in line with *NICE guideline NG12 on cancer referrals*, to stop inappropriate referrals.	Primary care providers, trusts	On publication
	d Work with primary care colleagues to manage patients' expectations of the value of gastroscopy and improve shared decision making in line with *NICE Clinical Guideline CG138* on patient experience .	Trusts	On publication
	e Consider use of transnasal gastroscopy for patients who might benefit from this, rather than rebooking for a procedure under unconscious sedation or general anaesthetic.	Trusts	On publication
9. Improve pre-assessment and referral vetting for colonoscopies and increase access to CT Virtual Colonoscopy and CT where appropriate.	**a** Vet colonoscopy surveillance waiting list against the new *BSG post-polypectomy and post-colorectal cancer surveillance guidelines* to free up some capacity for higher-risk surveillance patients and for symptomatic referrals.	Trusts	Ongoing
	b Vet colonoscopy referrals and interrogate whether patients are being appropriately pre-assessed (including remote pre-assessment where appropriate).	Trusts	On publication
	c Review whether GPs are referring using the two-week wait pathway inappropriately, and work collaboratively with Primary Care Networks to ensure that NICE referral guidelines are followed correctly.	Trusts, Primary Care Networks	Within 3 months of publication
	d Assess patients for wellness and frailty when deciding on the most suitable procedure, and discuss preferences with them, in order to tailor their care.	Trusts	Ongoing
	e Increase CT or CTVC capacity in co-ordination with radiology teams: any increase in demand will need to be adequately planned and resourced.	Trusts	Within 12 months of publication
10. Analyse emergency and Post-Colonoscopy Colorectal Cancer (PCCRC) occurrences of cancer, keep a register of surveillance for high-risk patients, and remedy any identified issues to improve access to prompt diagnosis.	**a** Collect and analyse data on any new diagnoses of colorectal cancer as an emergency presentation, and conduct a Root Cause Analysis to identify themes to improve access to elective care to support earlier diagnosis.	Trusts	Within 18 months of publication
	b Perform an audit or Root Cause Analysis wherever a cancer may have been missed during colonoscopy, and use this to determine the most likely explanation, and to identify areas for improvement in the quality of colonoscopy services.	Trusts	Ongoing
	c Collect and share data to carry out a service-level review of rates of PCCRC, to identify ways to improve colonoscopy as a service.	Trusts	Within 18 months of publication
	d Avoid delaying surveillance for cancer in high-risk patients, such as those with Lynch Syndrome, for example by establishing high-risk patient registers where appropriate (as part of allocated leadership Programmed Activities (PAs)).	Trusts	Within 3 months of publication

Liver, pancreas and biliary system (hepatobiliary)

Recommendation	Actions	Owners	Timescale
11. Review liver disease programmes, particularly focusing on early identification, proactive management and reduced occurrence of, and emergency admissions for, cirrhosis.	**a** Establish proactive programmes to manage patients with alcoholic and non-alcoholic liver disease, including: • improved access to clinics; • access to dedicated alcohol care teams and/or alcohol and drug misuse nurses; • access to community detox; • access to weight-loss clinics for patients with or at risk of Non-Alcoholic Fatty Liver Disease, potentially working with dieticians or diabetic management teams; • screening of emergency admissions for high alcohol use, in line with NHS England and NHS Improvement prevention programmes.	Trusts, Integrated Care Systems, liver networks	Substantial progress to be made within 12 months of publication
	b Register for and work towards Improving Quality in Liver Services (IQILS) accreditation or similar initiatives to share learning and best practice.	Trusts	Registration within 6 months of publication
	c Establish programmes to improve early identification of Alcohol-Related Brain Injury (ARBI), or of patients at risk, including better links to community detox.	Trusts	Within 18 months of publication
	d Review any variations in paracentesis complication rates and identify any underlying concerns, in order to share best practice and reduce risk of harm.	Trusts	Within 12 months of publication
	e Improve the day case rate for paracentesis.	Trusts	Within 18 months of publication
12. Improve screening and treatment for varices.	**a** Offer screening gastroscopy for patients with cirrhosis to detect oesophageal varices – in line with NICE guidance.	Trusts	On publication
	b Ensure appropriate primary prophylaxis (such as beta blockers) and secondary prevention, including increasing day case rates of variceal banding, to reduce the risk of acute variceal bleeding.	Trusts	Ongoing
13. Work with primary care to give direct open access to best practice fibrosis assessment.	**a** Increase use of either appropriate blood tests (in consultation with pathology colleagues), or scanning technology (such as fibroscan or equivalent) in line with *NICE guidance on using fibroscans (MIB216)*, preferably giving GPs open access to book these scans.	Trusts	Within 6 months of publication
14. Ensure awareness and consistent use of cirrhosis care bundles and discharge checklists.	**a** Ensure that all admitting staff across the trust are aware of cirrhosis care bundles, and use these consistently for patients who are admitted to hospital with decompensated liver disease. The bundle should include screening for and treating Spontaneous Bacterial Peritonitis (SBP).	Trusts	As soon as possible after publication
	b Ensure that all discharging staff across the trust are aware of and use the cirrhosis discharge checklist for patients being discharged after an admission with decompensated liver disease.	Trusts	As soon as possible after publication

Liver, pancreas and biliary system (continued)

Recommendation	Actions	Owners	Timescale
14. Ensure awareness and consistent use of cirrhosis care bundles and discharge checklists. (continued).	**c** Ensure all patients diagnosed with SBP are put on antibiotic prophylaxis, to reduce risk of recurrent infection.	Trusts	Ongoing
	d Improve engagement with regional liver networks which have key links to centres of expertise.	Trusts, Integrated Care Systems	Within 12 months of publication
15. Ensure Endoscopic Retrograde Cholangio-Pancreatography (ERCP) is performed only when necessary, as day cases where clinically appropriate, in sufficient volumes, and ideally with input from an ERCP multidisciplinary team.	**a** Only perform ERCPs with therapeutic intent – not solely as a diagnostic test. Consider less invasive Magnetic Resonance Cholangio-Pancreatography (MRCPs) or Endoscopic Ultrasound scan (EUS) for diagnosis (in consultation with radiology colleagues to ensure adequate capacity).	Trusts	Ongoing
	b Consider consolidating ERCP services with other centres at Integrated Care System level, especially if some sites are only performing very small numbers.	Trusts, Integrated Care Systems	Within 12 months of publication
	c Monitor data on repeat ERCPs: if a large number are carried out for stone disease, this may indicate the need for further training or consolidation.	Trusts, Integrated Care Systems	Within 18 months of publication
	d Ensure an ERCP MDT is established to review which patients require ERCPs and lower the risk of complications and mortality. This should include ERCP practitioners plus ideally EUS and radiology representatives.	Trusts, networks	Within 18 months of publication
	e Ensure ERCP is performed as a day case, where clinically appropriate.	Trusts	Ongoing
	f Schedule ERCP procedures for morning lists where possible.	Trusts	Ongoing
16. Ensure there is an effective programme in place for tracking and replacement of removable biliary stents.	**a** Ensure adequate tracking processes for biliary stents are in place, to reduce the likelihood that a patient is left with a biliary stent in longer than intended.	Trusts	Within 6 months of publication
	b Ensure discharge paperwork and patient after-care leaflets highlight symptoms of biliary sepsis, how to raise the alarm if these occur, and the importance of contacting the hospital if they do not receive an appointment to remove their stent.	Trusts	Ongoing

Luminal gastroenterology

Recommendation	Actions	Owners	Timescale
17. Ensure there is sufficient proactive management for Inflammatory Bowel Disease (IBD) patients, to reduce emergency admissions and the need for surgery.	**a** Ensure new referrals with suspected IBD, with or without elevated faecal calprotectin results, are seen in an IBD or gastroenterology clinic within four weeks.	Trusts	Ongoing
	b Ensure IBD patients can easily access an effective IBD helpline and flare clinics, to reduce the likelihood of emergency admission.	Trusts	Ongoing
	c Ensure there is an acute severe colitis pathway in place and used consistently across the trust, with access to proactive management of inflammation and salvage therapy to reduce the need for surgery.	Trusts	Within 3 months of publication

Nutrition support

Recommendation	Actions	Owners	Timescale
18. Review nutrition support infrastructure and establish nutrition support teams and steering groups as outlined in *NICE clinical guideline CG32 on nutrition support for adults*[13].	**a** Establish teams with dedicated nutrition specialist nurses – including recruitment of nutrition specialist nurses.	Trusts	Within 12 months of publication
	b Establish nutrition steering groups.	Trusts	Within 12 months of publication
	c Establish consultant-led nutrition ward rounds where possible.	Trusts	Within 12 months of publication
	d Ensure patients are screened in line with *NICE clinical guideline CG32 on nutrition support for adults*.	Trusts	Ongoing
	e Consider creating or engaging with regional networks for nutrition support to allow clinicians to share best practice, including creating specialist centres if appropriate.	Trusts, NHS England and NHS Improvement	Within 12 months of nutrition networks being established
19. Monitor complication rates across nutrition support services, and implement measures to reduce rates.	**a** Ensure Percutaneous Endoscopic Gastrostomy (PEG) 30-day mortality rates and Total Parenteral Nutrition (TPN) Catheter Related Blood Stream Infection (CRBSI) rates are carefully recorded and monitored, and put measures in place as needed to ensure correct case selection and share learning, aiming to reduce rates.	Trusts	Progress to be made within 6 months of publication
	b Aim to use appropriately trained staff to look after TPN vascular access devices: this could be upskilled ward nurses (see below), vascular access nurses, dedicated nutrition specialist nurses or other allied health professionals.	Trusts	Within 12 months of publication
	c Upskill ward nurses in optimal vascular access device care, especially where dedicated vascular access teams are not in place.	Trusts	Within 18 months of publication
	d Consider co-locating patients needing parenteral nutrition in a dedicated area or unit where practical.	Trusts	Within 12 months of publication

[13] *www.nice.org.uk/guidance/cg32*

Medicines optimisation

Recommendation	Actions	Owners	Timescale
20. Work with pharmacy colleagues to carry out further investigation into any medicines recorded as unmapped or no-moiety medicines.		Trusts	Within 6 months of publication

Improving future gastroenterology services

Recommendation	Actions	Owners	Timescale
21. (Re)introduce and use initiatives and systems to share knowledge, resources and best practice to improve gastroenterology and endoscopy services.	**a** Sign up to or seek accreditation from existing quality initiatives where possible.	Trusts	Ongoing
	b Co-ordinate the sharing of best practice and business cases for gastroenterology and endoscopy services by establishing a GIRFT best practice library and learning platform.	GIRFT	Within 6 months of publication
	c Use an Endoscopy Reporting System (ERS) that complies with National Endoscopy Database (NED) criteria to inform a national picture of clinical practice.	Trusts	Within 12 months of publication

Procurement

Recommendation	Actions	Owners	Timescale
22. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.	**a** Use sources of procurement data, such as Spend Comparison Services and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.	Trusts	Within 6 months of publication
	b Identify opportunities for improved value for money, including the development of benchmarks and specifications. Locate sources of best practice and procurement excellence, identifying factors that lead to the most favourable procurement outcomes.	GIRFT	Ongoing
	c Use Category Towers to benchmark and evaluate products and seek to rationalise and aggregate demand with other trusts to secure lower prices and supply chain costs.	Trusts	Within 12 months of publication
23. Use drinking water instead of bottled sterile water for manual flushing (via single use syringes) of scopes during endoscopy procedures, provided receptacle/water and syringes are routinely changed between patients.		Trusts	Within 6 months of publication

Reducing the impact of litigation

Recommendation	Actions	Owners	Timescale
24. Reduce litigation costs by application of the GIRFT programme's five-point plan.	**a** Clinicians and trust management to assess their benchmarked position compared to the national average when reviewing the estimated litigation cost per activity. Trusts would have received this information in the *GIRFT Litigation data pack*.	Trusts	For immediate action
	b Clinicians and trust management to discuss with the legal department or claims handler the claims submitted to NHS Resolution included in the data set to confirm correct coding to that department. Inform NHS Resolution of any claims which are not coded correctly to the appropriate specialty via *CNST.Helpline@resolution.nhs.uk*	Trusts	Upon completion of 24a
	c Once claims have been verified, clinicians and trust management to further review claims in detail including expert witness statements, panel firm reports and counsel advice as well as medical records to determine where patient care or documentation could be improved. If the legal department or claims handler needs additional assistance with this, each trust's panel firm should be able to provide support.	Trusts	Upon completion of 24b
	d Claims should be triangulated with learning themes from complaints, inquests and serious untoward incidents (SUI) / serious incidents (SI) / patient safety incidents (PSI) and where a claim has not already been reviewed as SUI/SI/PSI, we would recommend that this is carried out to ensure no opportunity for learning is missed. The findings from this learning should be shared with all frontline clinical staff in a structured format at departmental/directorate meetings (including multidisciplinary team meetings, Morbidity and Mortality meetings where appropriate).	Trusts	Upon completion of 24c
	e Where trusts are outside the top quartile of trusts for litigation costs per activity, GIRFT will be asking national clinical leads and regional hubs to follow up and support trusts in the steps taken to learn from claims. They will also be able to share with trusts examples of good practice where it would be of benefit.	Trusts	For continual action throughout GIRFT programme

A note on COVID-19

To reflect the challenges that COVID-19 is creating for gastroenterology departments, we have also included a section at the end of this report which explains the impact on gastroenterology services, shares learnings, and highlights which of our recommendations are most relevant to the COVID-19 healthcare landscape and how they can be adapted. In general, it was notable that our recommendations did not need to change substantially. Instead, many of them simply gained further relevance and urgency.

Gastroenterology today

What it is

Gastroenterologists and hepatologists care for patients with benign or malignant disorders of the gastrointestinal tract, liver, pancreas and gallbladder[14]. There are two main subspecialty areas of practice in gastroenterology: luminal, which covers anything to do with the main digestive tract, and hepatology or hepato-pancreato-biliary (HPB), which covers problems to do with the liver, pancreas and biliary system.

All gastroenterologists also train in hepatology, but some may choose to do further, more advanced training in liver disease. Almost all gastroenterologists also train in general medicine, so may also practise as general physicians in hospitals.

Who it affects

Conditions to do with the digestive tract: luminal gastroenterology

Most of us will experience a problem with our digestive tract at some point in our lives. Research in 2018 showed that 69% of the population have experienced some sort of persistent gastrointestinal (GI) complaint[15]. It is therefore not surprising that GI symptoms and related disease are one of the most common reasons for a patient to visit their GP, accounting for 10% of consultations in primary care[16]. Collectively, GI diseases are also a factor in 1 in 8 deaths in the UK[17].

There are many risk factors for GI problems. Patients can help to prevent some issues with healthier lifestyle – for example losing weight can help to lower the chances of developing bowel cancer[18]. But for many patients, GI problems are not lifestyle-related.

It is common for patients to delay seeking help for a GI problem, due to embarrassment about the disease or fear about possible tests and treatment. Of the 48% of people who are currently experiencing a chronic GI problem or have done so in the past, nearly 1 in 4 (24%) have not seen a GP about their symptoms[19].

In 2018, nearly 1 in 5 people (17%) had to take time off work due to GI symptoms, and over a quarter (27%) avoided going out. Nearly 1 in 10 people (9%) have suffered depression as a result of GI problems[20].

Conditions to do with the liver: hepatology

Liver disease rates are soaring and liver disease is expected to become the biggest cause of premature death in the next few years. While deaths due to other major killer diseases, like cancer or heart disease, have decreased, since 1970 the number of people dying from liver disease in the UK has increased by more than 400%, as shown in **Figure 1** below. In patients younger than 65, deaths have increased by almost 500%[21]. Liver disease is the biggest cause of death in those aged between 35 and 49, and the third leading cause of premature death[22].

[14] *Royal College of Physicians (2016) Gastroenterology and hepatology www.rcpmedicalcare.org.uk/designing-services/specialties/gastroenterology-and-hepatology*

[15] *The State of the Nation's Gut: A report summarising the Love Your Gut 2018 research findings (2018) http://loveyourgut.com/resources/love-your-gut-report-2018.pdf*

[16] *Jones, R. (2008) Primary care research and clinical practice: gastroenterology*

[17] *Cited on https://gutscharity.org.uk/*

[18] *Cited on www.nhs.uk/conditions/bowel-cancer/causes/*

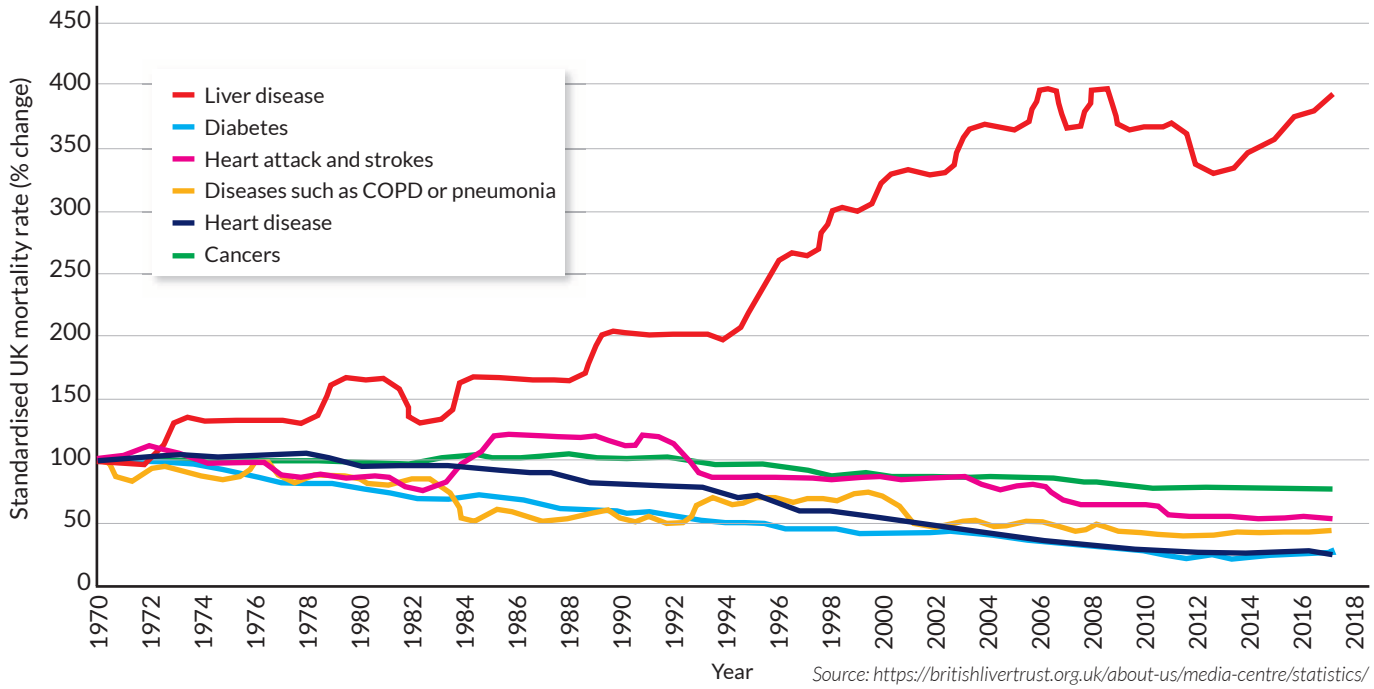
[19] *The State of the Nation's Gut: A report summarising the Love Your Gut 2018 research findings (2018) http://loveyourgut.com/resources/love-your-gut-report-2018.pdf*

[20] *The State of the Nation's Gut: A report summarising the Love Your Gut 2018 research findings (2018) http://loveyourgut.com/resources/love-your-gut-report-2018.pdf*

[21] *Disease burden and costs from excess alcohol consumption, obesity, and viral hepatitis: fourth report of the Lancet Standing Commission on Liver Disease in the UK; www.thelancet.com/journals/lancet/article/PIIS0140- 6736(17)32866-0/fulltext Cited in The alarming impact of liver disease, The British Liver Trust (2019) https://britishlivertrust.org.uk/wp-content/uploads/The-alarming-impact-of-liver-disease-FINAL-June-2019.pdf*

[22] *Cited in https://britishlivertrust.org.uk/about-us/media-centre/statistics/*

Figure 1: The rise in deaths from liver disease compared with other major diseases



Source: https://britishlivertrust.org.uk/about-us/media-centre/statistics/

90% of liver disease is due to obesity, alcohol misuse or viral hepatitis[23] (which in the UK is most commonly caused by sharing needles used to inject drugs[24]). This means that most liver disease is 'preventable' if patients are able to alter harmful behaviours – but those harmful behaviours are also very common. 1 in 5 adults in the UK drink in a way that could harm their liver; 63% of UK adults are now classed as obese or overweight, and it is estimated that 1 in 3 have early-stage Non-Alcoholic Fatty Liver Disease[25]. Despite the prevalence of these behaviours, patients with liver disease often suffer stigma about their disease being 'self-inflicted'.

Liver disease disproportionately affects the poorest and most vulnerable in society, and care provision is worst in the regions with the greatest socio-economic deprivation. People who live in more deprived areas are up to six times more likely to die of liver disease than those who live in wealthier areas[26].

Care setting and disciplines involved

The average number of gastroenterology consultants per hospital is 8.8, of which an average of 2.2 will be hepatologists. In most trusts (60%), inpatient liver and luminal teams are not separated. However, in some larger hospitals, particularly university hospitals, there are separate teams for inpatient care[27].

Many gastroenterology patients attend hospital as outpatient or day case patients. The specialty involves a wide range of investigations, including blood tests, X-rays, scans and endoscopy procedures. We have used 'endoscopy' as a general term through this report unless dealing with a specific procedure, such as colonoscopy. We have also used terms that patients may be more familiar with, such as 'gastroscopy', rather than oesophago-gastro-duodenoscopy (OGD).

Gastroenterology overlaps with several other specialties – in particular, surgery (colorectal, upper gastrointestinal, and general surgery), radiology, pathology and oncology. Gastroenterology also relies on interventional radiology in several areas, including hepatology and treating gastrointestinal bleeding.

[23] *Cited in https://britishlivertrust.org.uk/about-us/media-centre/statistics/*

[24] *Cited in www.nhs.uk/conditions/hepatitis/*

[25] *The British Liver Trust (2019) The alarming impact of liver disease https://britishlivertrust.org.uk/wp-content/uploads/The-alarming-impact-of-liver-disease-FINAL-June-2019.pdf*

[26] *From Professor Stephen Ryder's foreword to The British Liver Trust (2019) The alarming impact of liver disease*

[27] *British Society of Gastroenterology Clinical Services Survey Results 2019: The Shape of Gastroenterology Services in the UK www.bsg.org.uk/wp-content/uploads/2020/02/BSG-CSSC-2019-State-of-the-Nation-report.pdf?x19508*

Patients may experience gastroenterology:

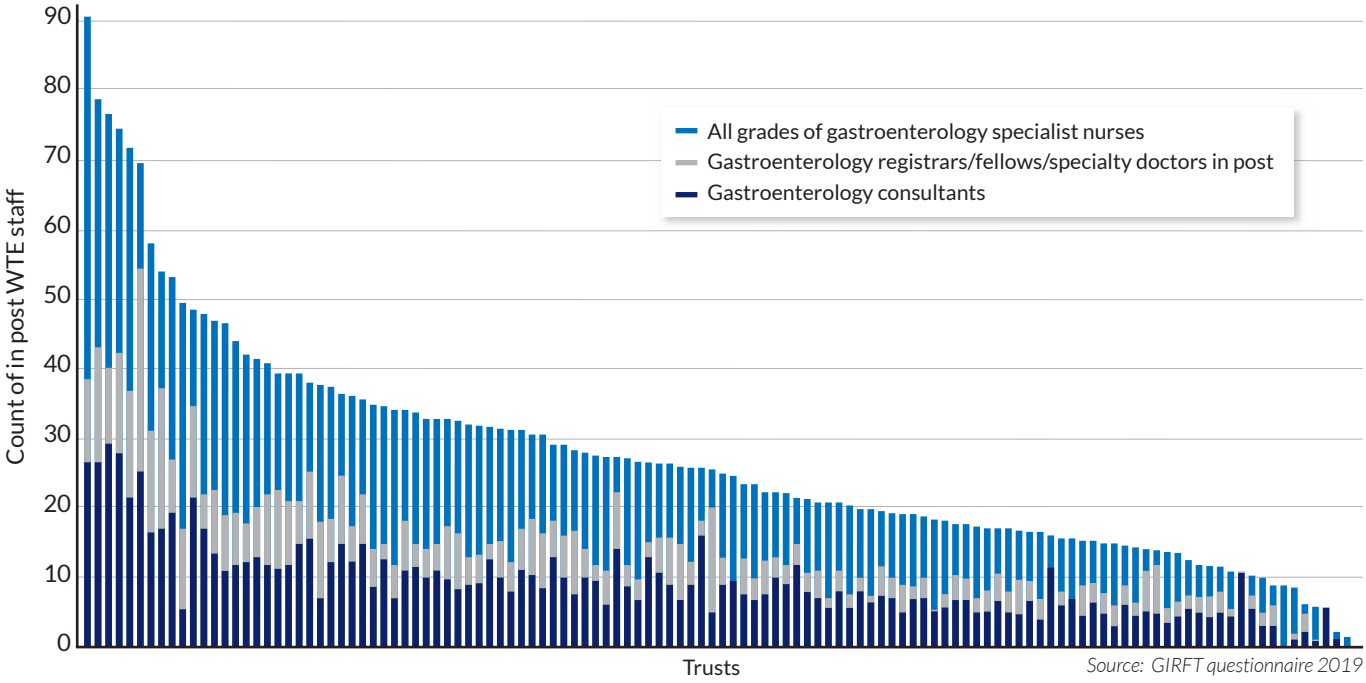
- as an inpatient, either as an elective or an emergency admission;
- as a day case, for endoscopy or for another day case procedure, such as a drug infusion;
- as an outpatient attending a clinic (in person or at a virtual clinic).

Generally, luminal patients are more likely to be outpatients, while hepatology accounts for more gastroenterology inpatients. Clinics and endoscopies are mostly delivered by consultants, Specialty and Associate Specialist (SAS) doctors, specialist nurses, and specialty trainees. As **Figure 2** below shows, departments vary significantly in the Whole Time Equivalent (WTE) of clinical staff employed. This chart includes all responses to the GIRFT gastroenterology questionnaire. If we remove providers who did not complete the section related to clinical staffing in full, the number of clinical staff employed ranged from 90.5 WTE down to 7.4 WTE. This demonstrates the large spread in the size of trusts' gastroenterology services.

The workforce mix will depend on location and type of department, as well as ability to recruit and retain staff.

For more on variation in the gastroenterology workforce, please see the *British Society of Gastroenterology Workforce Report*[28].

Figure 2: Number of WTE staff per department



Source: GIRFT questionnaire 2019

The category 'All grades of gastroenterology specialist nurses' on this graph includes the following categories of nurse:

- Gastroenterology nurse consultant;
- Gastroenterology advanced nurse practitioner;
- Inflammatory Bowel Disease (IBD) specialist nurse;
- Hepatology specialist nurse;
- Nutrition specialist nurse;
- Percutaneous Endoscopic Gastrostomy (PEG) specialist nurse;
- Nurse endoscopist;
- Alcohol and drug misuse specialist nurse;
- Upper gastrointestinal cancer specialist nurse;
- Hepato-Pancreato-Biliary (HPB) cancer specialist nurse;
- other gastroenterology specialist nurses, such as specialist screening practitioners.

Please note: it is possible that some specialist nurses:

- have more than one of the roles listed here;
- are not part of the gastroenterology department – for example, some cancer specialist nurses may be employed by surgery, or alcohol misuse nurses may be employed by emergency departments.

This means that our data may underestimate a hospital's overall provision.

[28] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

Current and future challenges to capacity

Gastroenterology has developed and expanded at a greater rate than any other acute major medical specialty over the past 30 years[29].

This is particularly as a result of:

- Increased demand for both diagnostic and therapeutic endoscopy. Many conditions that previously required surgical intervention (such as gastrointestinal bleeding or removal of some colonic polyps) can now be assessed and treated using endoscopy.
- The drive for earlier cancer diagnosis and introduction of screening tests – as 25% of all cancers involve gastrointestinal symptoms and disease. A key element of this is the current and future expansion of the NHS National Bowel Cancer Screening Programme (NBCSP).

In 2013, The Royal College of Physicians estimated that six WTE gastroenterologists were needed per 250,000 population[30]. However, this guidance is now quite old and did not take into account the creation of the NBCSP, the increase in six- or seven-day services, or the steady increase in liver disease. It is therefore likely that the number now needs to be higher.

According to the BSG's latest workforce reports[31, 32], in October 2019 there were 1,570 substantive gastroenterology and hepatology consultants in the UK, a 5.1% expansion from 2017. The average number of gastroenterologists per hospital in the UK is 8.8 (please note this is a head count number, not WTEs), and there is an average of one consultant vacancy per hospital. However, 43% of advertised gastroenterology and hepatology posts in 2018 were unfilled, so nationally gastroenterology has been unable to expand in line with demand – despite a 60% increase in the number of gastroenterology consultants over the last ten years.

To keep up with current demand, gastroenterology is often run using additional hours, insourcing and outsourcing. Most full-time gastroenterology consultants already work longer than full time (greater than ten Programmed Activities or PAs) before adding any additional hours[33]. The reliance on additional hours has led to 'burnout' issues with gastroenterology staff (see *Allocating staff efficiently to tackle long waiting lists* on page 41 for more).

The NHS National Bowel Cancer Screening Programme

The National Bowel Cancer Screening Programme (NBCSP) is part of the NHS's plan to expand screening in general. It is designed to save lives by preventing cancer from developing in the first place (by removing polyps), and detecting cancer at an earlier, more treatable stage.

It is clear that the programme is already creating significant capacity challenges, which will only increase as the programme expands.

The programme offered two screening pathways:

- For people aged 55: one-off flexible sigmoidoscopy (sometimes called a 'bowel scope'). This is a camera test that looks at the lower part of the large bowel. This pathway directly increases demand for flexible sigmoidoscopy.
- For people aged 60-74: a stool test to check for blood, plus colonoscopy or CT Virtual Colonoscopy (CTVC) if the stool test is positive. Every two years, people in this age range are automatically sent an invitation and a screening kit to collect a stool sample. If the sample is positive, the individual will be offered an appointment with a Specialist Screening Practitioner (SSP) to discuss having a colonoscopy or CTVC – a specialised CT scan – if colonoscopy is not appropriate. This pathway directly increases demand for colonoscopy and CTVC.

[29] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

[30] *Royal College of Physicians (2013), Consultant Physicians Working for Patients www.rcplondon.ac.uk/projects/outputs/consultant-physicians-working-patients-revised-5th-edition*

[31] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

[32] *Tham, T., Douds, A., Ransford, R., Cort, S. and Munday, J. (2020) BSG Clinical Services Survey Results 2019: The Shape of Gastroenterology Services in the UK*

[33] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

Increasing demand

During the Royal College of Physicians Joint Advisory Group on Gastrointestinal Endoscopy (JAG)'s audit of UK endoscopy services in 2017 (using 2016 data), 10% of colonoscopies and 24% of flexible sigmoidoscopies were for screening, so the NBCSP was already using a significant amount of capacity.

Since then, changes have been introduced to the existing stool test offered to people on the bowel cancer screening pathway, from guaiac-based faecal occult blood testing (gFOBT) to the Faecal Immunochemical Test (FIT). According to the NHS Long Term Plan[34], the FIT test has been shown to improve take-up rates by 7%, including among groups with low participation rates such as men, people from ethnic minority backgrounds and people in more deprived areas. In Scotland[35], uptake of bowel screening increased by 8.5% after the FIT test was introduced (with a lower threshold than in England). This increase in stool testing is in turn leading to increased demand for colonoscopies and CTVCs where there is an 'abnormal' result from this test. This therefore adds to capacity issues for both gastroenterology and radiology, with knock-on resourcing challenges for workforce and equipment.

Despite the increase in demand for flexible sigmoidoscopies, colonoscopies and CTVCs due to screening, endoscopy centres must also continue to keep up with the rising demand for all non-screening endoscopy procedures.

Workforce and capacity issues in NBCSP

Bowel cancer screening colonoscopies following an abnormal stool test result can only be carried out by highly trained staff assessed and accredited as part of the Bowel Cancer Screening Accreditation (BCSA)[36] process facilitated by JAG. While previously there was a 'steady state' of capacity and demand, changes to the screening programme and other wider capacity issues will increasingly lead to a mismatch between capacity and demand and a national shortage of BCSA accredited staff. This will in turn add to waiting times for patients.

Although nurse endoscopists are often comfortable carrying out flexible sigmoidoscopy (known as bowel scope in the NBCSP) and diagnostic colonoscopy, they may be less comfortable carrying out colonoscopy for bowel cancer screening. Staff accredited to perform colonoscopies can perform flexible sigmoidoscopies, but staff just accredited for flexible sigmoidoscopy need separate accreditation for colonoscopy. This is because bowel cancer screening colonoscopies are more likely to be therapeutic, involving the removal of larger polyps, and this carries a higher chance of complications. This means more medical endoscopists may be needed to perform this work.

[34] *NHS England and NHS Improvement (2019) The NHS Long Term Plan www.longtermplan.nhs.uk/publication/nhs-long-term-plan/*

[35] *NHS Services Scotland (2019) Scottish Bowel Screening Programme Statistics www.isdscotland.org/Health-Topics/Cancer/Publications/2019-08-06/2019-08-06-Bowel-Screening-Publication-Report.pdf*

[36] *RCP JAG (2020) Bowel Cancer Screening Accreditation https://bcsa.thejag.org.uk/*

Table 1 below shows the number of screening endoscopists that JAG accredited from 2005 up to October 2020. This shows that numbers may not be increasing fast enough to keep up with demand, as the number of procedures is likely to keep increasing. Note: the bowel scope screening programme began in 2013.

Table 1: Number of individuals who have been accredited to undertake screening

Year accredited	Bowel scope (flexible sigmoidoscopy)	Screening colonoscopy	Total
2005	N/A	2	2
2006	N/A	12	12
2007	N/A	55	55
2008	N/A	82	82
2009	N/A	76	76
2010	N/A	24	24
2011	N/A	32	32
2012	N/A	21	21
2013	35	17	52
2014	76	20	96
2015	125	23	148
2016	39	6	45
2017	72	21	93
2018	45	22	67
2019	30	34	64
2020	9	18	27
Total	**431**	**465**	**896**

Source: JAG Feb 2020

- JAG confirms accreditation on successful completion of the assessment process.
- JAG does not have a process to confirm whether individuals who are accredited are still actively screening. Some endoscopists have contacted JAG to inform them that they are no longer screening. These endoscopists (38 for colonoscopy and 58 for bowel scope) are still included in the table above as we could not determine which year they were accredited in.
- It is possible for individuals to be accredited in bowel scope (flexible sigmoidoscopy specifically for the NBCSP) and then in screening colonoscopy. Those accredited in screening colonoscopy can also undertake bowel scope screening. Screening colonoscopists are not issued separate bowel scope accreditation.

The future of NBCSP

The long-term intention for the NBCSP is to bring testing ages down, and also to lower the threshold for a positive stool test, so more people will be referred for a colonoscopy or CTVC. These changes will exacerbate capacity challenges further.

Longer-term, the NBCSP will have lasting effects on the mix of treatments and screening offered. For example, it should lead to an increase in polyp detection and removal, and surveillance following this, and a decrease in the staging and incidence of bowel cancer.

Workforce and capacity issues: endoscopy in general

Over time, particularly post-COVID-19, it is expected that the rates of colonoscopy for symptomatic patients will increase in comparison to rates of flexible sigmoidoscopy. Currently there is not enough capacity to support this expected increase in colonoscopy. There is also an expectation that accredited colonoscopists will spend more time on screening to cope with the backlog caused by COVID-19. However, this will inevitably affect their availability for other work, such as symptomatic endoscopy.

When looking at endoscopy in symptomatic patients, it is important to note that wherever the endoscopy happens, whether the procedure is subcontracted or carried out by NHS staff, the endoscopy staff are always highly trained and the standard of their work is frequently reviewed.

Some patients are interested to know why they are being referred for a flexible sigmoidoscopy rather than a colonoscopy. There are many reasons why a clinician may decide that a flexible sigmoidoscopy is safer and more appropriate – particularly if the problem appears to be in the lower part of the bowel. Flexible sigmoidoscopy:

- tends to have shorter waiting times, as there are fewer capacity issues;
- takes less time to perform than colonoscopy;
- has a lower complication rate than colonoscopy;
- tends to be easier for patients to tolerate; often this means the patient does not need sedation, and therefore needs less time to recover (which is important in the COVID era, where we want patients to spend as little time in hospital as possible).

Health Education England (HEE) has developed a clinical endoscopist training programme for gastroscopy and flexible sigmoidoscopy, but this will not provide bowel cancer screening colonoscopists. However, these additional endoscopists may free up existing accredited endoscopists from some symptomatic endoscopy work, allowing them to undertake more bowel cancer screening colonoscopies.

Current service organisation

Most trusts in England include a gastroenterology department. These will tend to be sited in acute hospitals. Additionally, most trusts will have a nutrition service, which generally (but not always) falls under the gastroenterology specialty.

In endoscopy:

- There are a total of 227 endoscopy units within acute NHS trusts in England.
- The majority of these units (90%) are within teaching and large acute providers.
- There are an additional 176 independent sector endoscopy units in England[37] .

[37] *Source for all figures listed here: JAG 2020*

About our analysis

Our review followed the standard GIRFT process. This ensures we can offer evidence-based findings and recommendations. These are based on clinical data, deep-dive visits, current best practice and clinical experience of providing gastroenterology services in the NHS.

Data sources

The analysis we carried out in developing this report is based on the GIRFT programme model – see page 151.

- First we gathered all of the relevant existing data related to gastroenterology, including from Hospital Episode Statistics (HES).
- We gained further data from an extensive questionnaire sent to 132 trusts across England requesting further detail on their gastroenterology and endoscopy services. 127 (96.2%) returned questionnaires, 97 of which were fully complete. The remaining 30 were substantially complete. Please note that this data is self-reported by trusts, and therefore may not be as reliable as HES data.
- Using this data we benchmarked providers on key measures which identified variation in practice and outcomes. A data pack specific to each trust was developed providing insights into the way the department functions.
- Then we visited the trusts to present the data in depth with clinicians, senior management and all those involved in delivering services. The visits explored outpatient, day case and inpatient management of gastroenterology patients at each trust. During the visits we discussed the variation in the data and how the trust stands in relation to their peers. These discussions have informed our findings and recommendations.
- We intended to visit all gastroenterology departments in person during the GIRFT process. However, due to the COVID-19 pandemic, we visited 59 in person and 70 as a 'virtual' visit using video conferencing. We completed all visits by 31 March 2021, giving a total of 129 visits, as some trusts had merged since the workstream first began and opted for a combined visit.

Other sources of data

As well as the HES and questionnaire data, we have also drawn data from a range of other sources. These include:

- NHS Digital;
- NHS England and NHS Improvement;
- NHS Resolution;
- Joint Advisory Group on Gastrointestinal Endoscopy (JAG);
- JAG Endoscopy Training System (JETS);
- National Endoscopy Database (NED);
- Diagnostic Imaging Dataset (DID);
- Civil Registration of Deaths (CRD);
- National Cancer Registration & Analysis Service (NCRAS);
- RX-Info Define©;
- CORECT-R[38].

[38] *CORECT-R is a national programme co-ordinated by the UK Colorectal Cancer Intelligence Hub to create a secure data repository. This will contain a huge array of data from across the cancer pathways of diagnosis, treatment and outcome. The programme is funded by Cancer Research UK. More details about the programme can be found at www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/establishing-a-uk-colorectal-cancer-intelligence-hub/.*

Conditions covered in this report

Gastroenterology is a multi-organ specialty that covers a wide range of conditions. Due to the range and diversity of potential conditions, the nature of the deep-dive visits, the restrictions in the data available, and the need to prioritise key issues, the process was not designed to cover all potential gastroenterology conditions or current challenges. Instead, we chose a selection of metrics that spanned most of the gastroenterology subspecialties, and acted as a barometer of the service, rather than attempting to cover the entirety of a very complex specialty.

Where an issue is not discussed, this will often be for one of the following reasons:

- HES (Hospital Episode Statistics) data, which we rely on in many GIRFT reports, includes only very limited information about outpatient visits. Many gastroenterology conditions are primarily dealt with in an outpatient setting, including functional conditions such as Irritable Bowel Syndrome (IBS), and other common conditions including dyspepsia, reflux disease, and Non-Alcoholic Fatty Liver Disease. Although functional gut conditions represent approximately 40% of gastroenterology problems, these could not be covered in the data pack or this report.
- They were already covered by another GIRFT workstream.
- They were part of specialised gastrointestinal services that were not within the scope of this report as they tend to happen in specialist centres, such as transplant, viral hepatitis or intestinal failure. These are covered by other programmes.
- The numbers were low.
- Another body is already conducting research into this area.

Findings and recommendations

We have grouped our recommendations into three main areas. At the end of the report we also indicate which of these recommendations are most relevant in the context of COVID-19.

Capacity and demand

1. Optimising capacity
2. Managing patient demand

Specific clinical areas

3. Endoscopy
4. Liver, pancreas and biliary system (hepatopancreatobiliary)
5. Luminal gastroenterology
6. Nutrition support

Other overarching recommendations

7. Medicines optimisation
8. Improving future gastroenterology services
9. Procurement
10. Reducing the impact of litigation

1. Optimising capacity

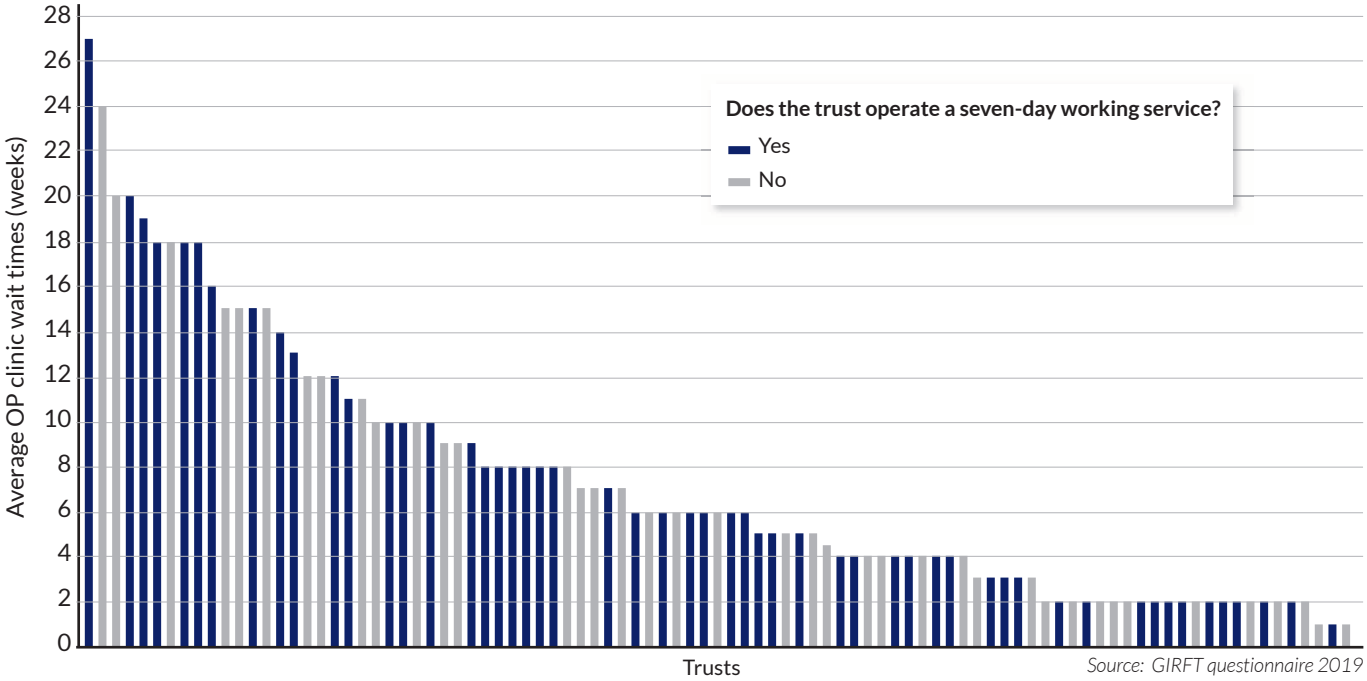
Gastroenterology in England is facing capacity challenges on several fronts. An increasing proportion of the population has a lifestyle that puts them at risk of disease, while major initiatives such as the National Bowel Cancer Screening Programme (NBCSP) continue to increase demand on existing services. Meanwhile, as the *Workforce Report* produced by the BSG[39] highlights, there is a nationwide shortage of available gastroenterology staff at all levels. This means it is unlikely trusts will be able to recruit to meet the increasing demand.

Trusts will continue to do what they can to recruit, and the BSG's *Workforce Report* contains further recommendations on this. NHS England and NHS Improvement, and NHS Employers also launched a joint retention programme in 2017 to address nursing turnover rates.

However, it was clear from our visits that there is more we can do to ensure that the capacity we do have is used as efficiently as possible and focused on delivering the greatest benefits. For example, we looked at the most effective way to use consultants' time, and ways to avoid bottlenecks in clinics and endoscopy services. Six- and seven-day services on wards and in delivering endoscopies are a key part of this – but these carry financial and staffing implications for the trusts, which need to be managed carefully.

During deep dives, we found that capacity issues were leading to significant variation in waiting times for outpatients – as shown in **Figure 3** below, where waiting times for a new patient appointment in a gastroenterology clinic varied from 1 week to 27 weeks. The ranges for other clinics were similar: from 1 week to 24 weeks for hepatology, and from 1 week to 30 weeks for a luminal clinic. Long waiting times such as these have a significant effect on both two-week wait cancer and 18-week referral pathways.

Figure 3: Average waiting times for gastroenterology outpatient clinic



Source: GIRFT questionnaire 2019

[39] *Rutter, C. (2019) British Society of Gastroenterology Workforce Report, British Society of Gastroenterology www.bsg.org.uk/workforce-reports/workforce-report-2019/*

Service design and workforce organisation

Six- or seven-day services and extended hours

Six- or seven-day services in endoscopy and on ward rounds can help to boost capacity and improve patient flow, and many trusts are running this kind of service already – our questionnaires showed that:

- 71% of trusts that responded to our questionnaire had one or more endoscopy site that was open six or seven days a week;
- 54% of gastroenterology services were running a weekend service for gastroenterology ward rounds.

These findings reflect the BSG's *State of the Nation report* (covering the whole of the UK) from 2019[40], which showed that in endoscopy, 61% of trusts had endoscopy lists on a Saturday, and 34% on a Sunday. There is a need to increase weekend services further to meet increasing demand.

Some trusts are also using evening sessions (for example, using a three-session day), especially to tackle endoscopy lists. In our research, 40% of trusts that responded to our question were running three-session days on at least one site. Some evening hours, for example 5pm to 7pm, may not incur premium rates for staff, and evening appointments can be convenient for some patients.

Whenever the extra sessions occur, these must be correctly resourced, job-planned services, not solely relying on staff working additional hours. Therefore this is likely to involve recruiting further employed staff to deliver these services. If this does not happen, the additional hours will not be sustainable, and will increase 'burnout' of staff.

When looking at weekend services in endoscopy, we discovered that while employed staff generally deliver the endoscopies carried out from Monday to Friday, services delivered over the weekend are often delivered using agency staff or staff on enhanced pay. This has financial implications for the trust, as the same tariff is paid for endoscopy regardless of who delivered it and when it was delivered.

Increasing endoscopy capacity also involves increasing demand on administrative support, and on radiology and pathology services. These increases must also be properly planned for.

Figure 3 above shows that implementing weekend services does not automatically reduce waiting lists as a measure by itself – trusts with weekend services were still likely to have long waiting lists. In fact, moving staff from weekday slots to weekend slots without providing additional staff could even increase waiting lists. This shows that trusts need to consider not just whether they implement weekend services, but how they do this effectively – for example, it is not helpful to simply move some appointments from weekdays to the weekend if the weekday slots are then not used effectively.

Therefore to increase weekend services cost-effectively, trusts need to consider how to increase their employed workforce or how to deploy them more efficiently. Trusts should also manage their weekend services carefully to ensure they are filling all appointments as effectively as possible – prioritising weekday slots, as these are generally more cost-effective.

[40] *British Society of Gastroenterology Clinical Services Survey Results 2019: The Shape of Gastroenterology Services in the UK www.bsg.org.uk/wp-content/uploads/2020/02/BSG-CSSC-2019-State-of-the-Nation-report.pdf?x19508*

CASE STUDY

Business case for seven-day services

United Lincolnshire Hospitals NHS Trust

The trust extended its gastroenterology and endoscopy services to seven days, and in doing so has improved access and quality of care for patients. The move to seven-day endoscopy and gastroenterology services has been partly paid for by the increased income from providing additional elective endoscopy capacity at weekends.

This income generation was a key part of the business case for change. It helped to justify removing gastroenterology consultants from acute medical rotas, which was necessary to enable the seven-day service, as well as employing extra consultants and nurses. New flexible job plans were agreed with consultants to help facilitate the change, and to ensure there was no reduction in endoscopy capacity during the week, the service also increased non-medical endoscopists.

The seven-day service was introduced in Lincoln, initially to provide on-call cover for gastrointestinal bleeds. Once successful, it was extended to Grantham and Boston, helping to standardise care across all of the trust's hospital sites. The new service means there is always a consultant available to review new and sick inpatients and advance potential discharges to keep pathways moving.

Results

Increased capacity has enabled improvements across the week, including:

- full on-call gastrointestinal bleed cover;
- same-day referrals for gastroenterology inpatients;
- gastroenterology specialty in-reach.

The patient experience has improved. In the latest NHS Friends and Family Test, the Lincolnshire endoscopy service was 100% recommended.

Consultant clinic time and follow-up

Some consultants are focusing more on endoscopy lists in their Programmed Activities (PAs) and spending less time in clinics. This is partly because consultants are often allocated a set amount of administration time, irrespective of the balance of work in their individual job plan. This means they do not have enough time to deal with the greater administrative burden and higher follow-up work associated with clinics. This can disincentivise staff from taking on more clinics, limiting clinic capacity further.

For clinics, unlike with endoscopy lists, patients will usually continue to see the consultant (or consultant's team) that they saw initially for follow-up visits. This can increase waiting times, especially when consultants are not available for a period of time, as their clinics generally are not covered by other consultants. However, pooling clinics is not always considered a viable solution to this issue, as in some cases there needs to be continuity of care.

Reviewing leadership and Programmed Activities for consultants and other staff

We found that, due to capacity issues, consultants are spending more time delivering care, and less time leading their department.

Due to the build-up of waiting lists and unavailability of staff, many trusts are not prioritising leadership time in consultant job plans, with consultants spending more of their Programmed Activities (PAs) delivering care. This leaves them less time to develop long-term plans, direct other staff, or lead the department.

Consultants' leadership activities may also need to include:

- Future planning to ensure the workforce continues to be sustainable.
- Creating regional networks to share best practice and establish specialist centres as needed – for example, creating networks for surveillance, nutrition or specific procedures (potential networks are discussed at various points through the report).
- Supporting their own workforce, both medical and non-medical, with wellbeing initiatives, in line with the Workforce, Workload and Wellbeing (WWW) initiative from the BSG, which is part of their guidance on job planning[42].
- Dealing with increasing levels of administration.
- Reviewing and distributing latest guidance from relevant bodies.
- Reviewing surveillance for high-risk patients.
- Communicating with primary care services, helping to drive appropriate referrals and support primary care management of conditions;
- Co-ordinating research projects;
- Taking part in courses or development programmes to help enhance leadership skills and behaviours.

These tasks may be split among different leads, according to the size of the department. These are all important to ensure the department runs a high-quality and efficient patient-centred service. However, as **Figure 4** (showing a combination of different leadership roles per trust) and **Figure 5** (showing PAs for leading the gastroenterology service only per trust) show, consultants are often allocated relatively few leadership PAs, with many departments allocating one PA or less to these tasks, and some trusts allocating zero leadership PAs.

Trusts must therefore reach a mutually acceptable agreement on how they can allocate PAs appropriately. Although this may lead to short-term waiting list increases (due to the consultant being less available for delivering care), in the longer term this should help to reduce waiting times as the department works more efficiently. Meanwhile, consultant PAs and other staff rotas need to be reviewed to become more focused and efficient – making sure work is consultant-led as appropriate, as well as consultant-delivered when necessary.

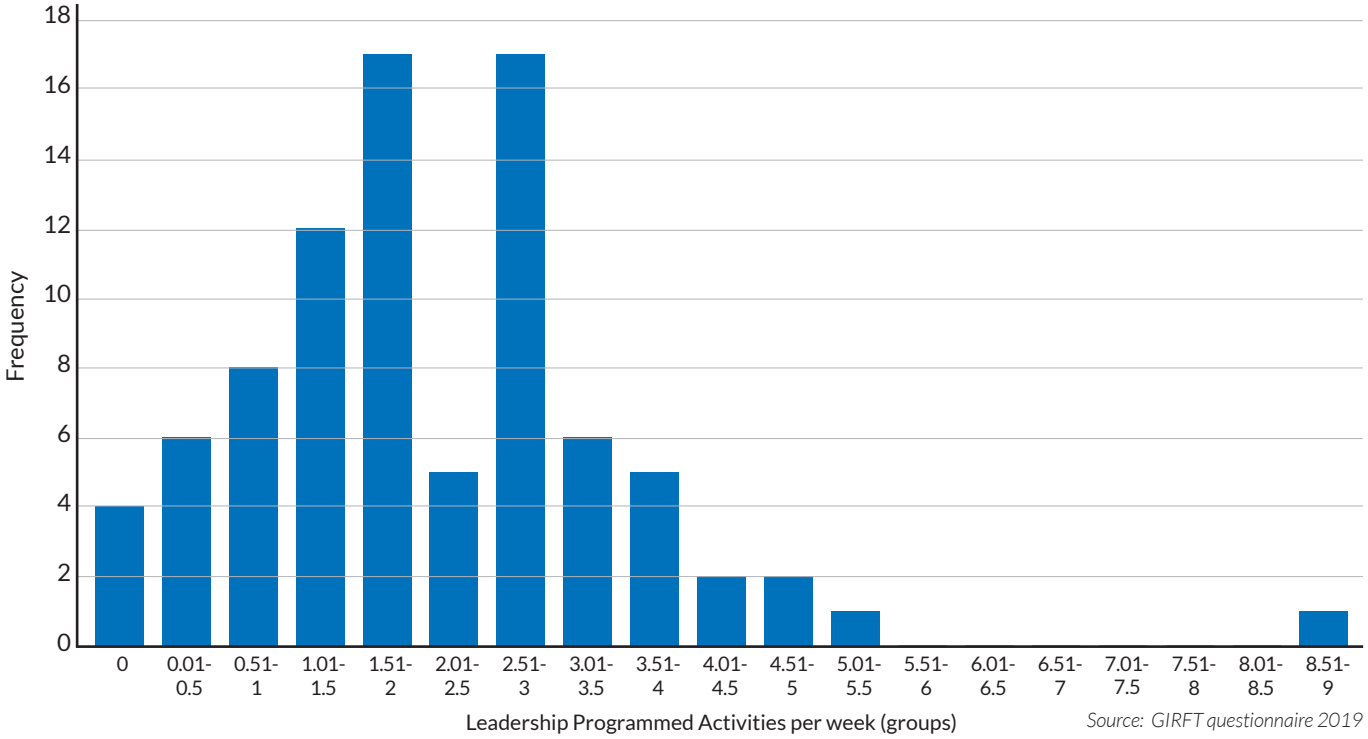
The need for consultants to have enough time allocated to deal with administrative tasks and other roles is also highlighted in the BSG's guidance on job planning[42].

Departments need to ensure gastroenterologists can manage gastroenterology cases (including clinics and endoscopy lists), limiting the use of external staff or other more expensive staffing options as far as practicable. This should help improve patient outcomes, reduce waiting times, and generate income for other services.

[41] *BSG (2020) Consultant gastroenterologist job planning guidance www.bsg.org.uk/job-planning-guidance/consultant-gastroenterologist-job-planning-guidance/*

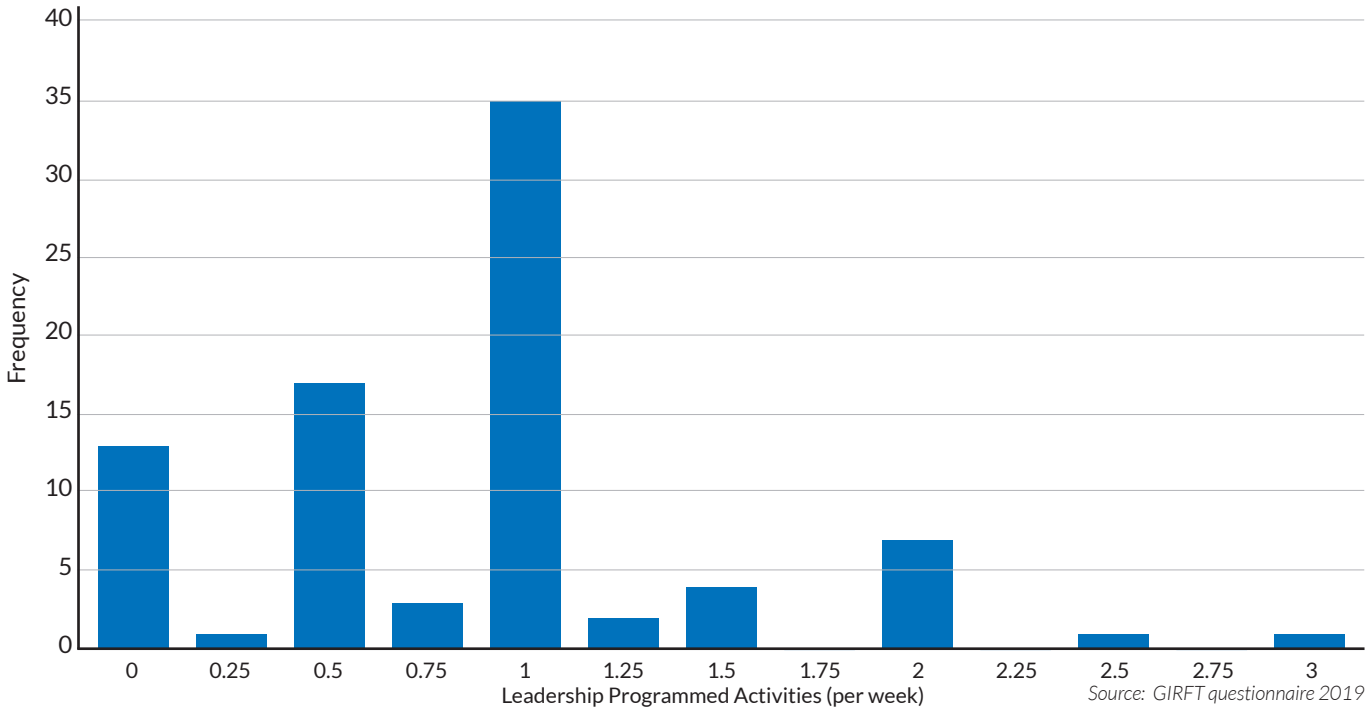
[42] *BSG (2020) Consultant gastroenterologist job planning guidance www.bsg.org.uk/job-planning-guidance/consultant-gastroenterologist-job-planning-guidance/*

Figure 4 : Frequency of planned leadership Programmed Activities per trust (used for leading the gastroenterology service, leading the endoscopy service, leading endoscopy surveillance and leading endoscopy training)



Source: GIRFT questionnaire 2019

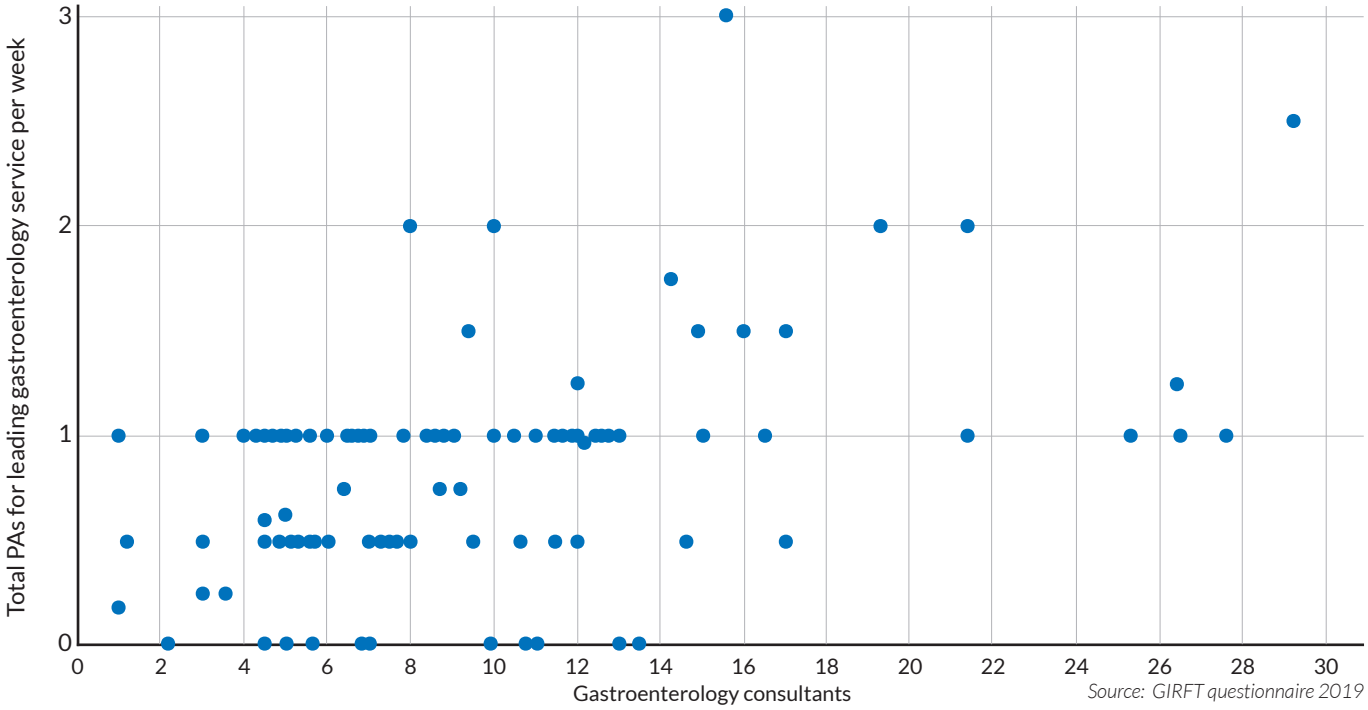
Figure 5: Frequency of planned leadership Programmed Activities per trust (for leading the gastroenterology service only)



Source: GIRFT questionnaire 2019

We also compared the number of leadership PAs with the size of department, to see whether larger departments were allocating more PAs to leadership. However, as **Figure 6** shows, the amount of time allocated for leadership does not always appear to increase consistently with the size of the department, and some departments have no PAs allocated for leadership.

Figure 6: Number of planned leadership Programmed Activities per trust for leading the gastroenterology service, compared with number of gastroenterology consultants in the department



Source: GIRFT questionnaire 2019

In our visits, we found that some departments had developed annualised or partially annualised job plans. These detail the number of clinical sessions that a clinician is expected to undertake over a full year, instead of at a weekly level. This can give clinicians some flexibility to respond to changes in demand, and make the most effective use of resources. For example, if there is a surge in colonoscopy referrals, an endoscopist may provide an extra colonoscopy list upfront, instead of another activity later. Or if an endoscopist is unavailable, another endoscopist may cover their list, or back-fill into their endoscopy room. This flexibility helps to avoid cancellations or wasted capacity. Annualised job plans need careful management, but they can enable a department to respond more immediately and more flexibly and to fill every available list efficiently.

Using effective multidisciplinary teams

Multidisciplinary teams (MDTs), led by a named consultant, can help to plan capacity as well as improve outcomes for patients. They are also a good learning opportunity for trainees and all staff. These teams can include (for example) gastroenterologists, radiologists, colorectal surgeons, pathologists, nurses, pharmacists, dieticians and psychologists. We have given suggestions throughout this report of where MDTs will be particularly useful – such as in Inflammatory Bowel Disease.

An MDT helps to provide more holistic care. For example, the team can discuss newly diagnosed patients, those with complex needs, or those not progressing well with treatment; identify patients who can start or need to stop therapies (such as chemotherapy or biologics, which can be costly), or identify wider areas of improvement, such as helping patients to self-manage.

Looking at the role of gastroenterologists in general medicine

Most gastroenterologists have dual accreditation in gastroenterology and in general medicine. This means that their job plans may incorporate a general medicine component, usually to address capacity issues elsewhere in the hospital. BSG research showed that gastroenterologists take part in general medicine on-call rotas in 23% of hospitals[43]. Our own research (from self-reported questionnaires) showed that:

- 52.8% of sites have at least some of their gastroenterology consultants on a general medicine rota;
- 16.9% of sites have **all** their gastroenterology consultants on the general medicine rota.

This general medicine workload impacts consultants' capacity to manage gastroenterology cases.

In addition, gastroenterology consultants often spend time seeing:

- patients in gastroenterology wards that do not have gastroenterology problems – these tend to be general medicine patients;
- patients on additional wards that the gastroenterology team have to cover (outlier wards allocated to the team), which also tend to be general medical patients;
- gastroenterology patients as ward referrals on non-gastroenterology wards.

This is usually because the patient has been placed on the wrong specialty ward due to bed availability. This may happen where a trust is under pressure to meet admission targets, including the A&E four-hour waiting time threshold.

Gastroenterologists often care for frail, elderly patients on gastroenterology and non-gastroenterology wards. These patients may have gastroenterology symptoms, but could equally be looked after by geriatricians or by frailty services.

We accept that gastroenterologists may need to take on some general medicine, particularly early in their careers, as this training and flexibility is an advantage to their role. During the first wave of the COVID-19 pandemic, gastroenterologists were able to take on general medicine roles to help trusts cope with the crisis. However, as the pandemic showed, diverting gastroenterology resource comes at the cost of further extending waiting times for gastroenterology clinics and endoscopy procedures.

This diversion of specialist resources can also result in increased use of locum or agency doctors being paid to carry out gastroenterology clinics and endoscopy. The resulting financial impact for trusts is obvious – but there is an impact on clinicians' morale, and recruitment too. Most gastroenterology clinicians would rather be treating the gastroenterology patients they have had specialty training to help. Seeing these patients cared for by (often better paid) locums instead, while they look after general medical ward patients, can lead to frustration and loss of morale. Where trusts ask gastroenterologists to be on a general medicine rota, this can have a negative effect on recruitment and retention, as consultants are more attracted by a role where they can work on their main specialty full time. This is particularly an issue as there are plenty of vacant gastroenterology consultant posts available, so it is easy for a candidate to choose a role where they will not need to be on call for general medicine duties.

In our research, we also looked at how much in-reach gastroenterologists do – supporting patients who present acutely with gastrointestinal symptoms, but who are not on gastroenterology wards. We found that 57.8% of trusts were carrying out gastroenterology in-reach supporting patients in emergency departments or medical assessment units, and only 39.1% were doing this during weekends. Again, if gastroenterologists can reduce their general medicine commitments, this would free them up for more in-reach work, supporting other areas of the hospital, and reducing length of stay (as without in-reach, patients often may spend time waiting to be moved to a gastroenterology ward for specialist care). In-reach also supports general medicine in a more targeted way, as general medicine patients with gastrointestinal symptoms may be seen and discharged more quickly, rather than gastroenterologists seeing general medicine patients who may not have gastrointestinal problems.

Each trust and department will obviously have their own resourcing requirements. We therefore recommend that trusts discuss general medicine commitments with the gastroenterology team, with the aim of reaching a mutually acceptable compromise tailored to the trust's and department's needs. Where increasing elective work, such as clinics or endoscopy, may lead to an increase in patients needing imaging and pathology services, this will also need to be adequately planned and resourced.

[43] *British Society of Gastroenterology Clinical Services Survey Results 2019: The Shape of Gastroenterology Services in the UK www.bsg.org.uk/wp-content/uploads/2020/02/BSG-CSSC-2019-State-of-the-Nation-report.pdf?x19508*

Allocating staff efficiently to tackle long waiting lists

We found that, in many trusts, locum doctors and other insourcing and outsourcing options are being used to bring down waiting lists for gastroenterology clinics and endoscopies.

When waiting lists for routine referrals become long, GPs may start to use the two-week wait cancer referral pathway more, which is intended specifically where cancer is suspected. This can add further pressure to trusts, as they try to deliver this activity in the tight timeframes required, and can in turn further increase waiting times for routine referrals.

To keep waiting lists down, trusts often do any or all of the following (figures given are from our research, which was conducted pre-COVID-19):

- pay their consultants or nurses enhanced pay for overtime (such as additional Waiting List Initiative (WLI) work) – we found 97.8% of sites were using WLIs;
- insource (using locums or agency staff teams to provide extra capacity) – we found 50% were using insourcing;
- outsource (selecting cases that can be carried out by another provider – for example, surveillance or diagnostic endoscopies) – we found 16.7% were using outsourcing.

These measures can be less cost-effective – but can also disrupt continuity of care for patients. For example, results for patients treated by external providers often do not appear in hospital IT systems, due to digital interoperability issues or data sharing arrangements. This can make effective patient surveillance and follow-up more difficult.

In endoscopy, the use of these measures is being driven by endoscopy units' desire to keep endoscopy waiting lists down in general, to meet waiting time and Referral to Treatment (RTT) targets, and especially in order to achieve or retain their JAG accreditation.

However, where trusts are using the National Tariff (Payment by Results), endoscopies usually generate enough income to pay for themselves – particularly if the endoscopies are carried out by employed staff in elective weekday slots, and especially if the employed staff are nurses or non-medical endoscopists. This means that endoscopies can generate income for the trust – enough income for them to employ more general medicine practitioners, or to contribute towards other services (gastroenterology-related or not). Even in block contracts, trusts may have to pay a premium rate for locums to provide elective capacity, and so there is a financial cost. It may benefit trusts to review the financial impact of using locum staff, and consider whether they can use employed staff in elective slots instead.

This issue links back to concerns about allocating gastroenterologists to general medicine duties. Trusts may need to review whether it is possible for gastroenterologists to look after more gastroenterology patients: they may then either generate income (under National Tariff) to pay for more general physicians; or (under block contracts) save income that would otherwise be spent on premium rate locums or agency staff to look after gastroenterology patients.

CASE STUDY

Optimising consultant capacity and enhancing patient care through nurse-led Inflammatory Bowel Disease clinics

East Sussex Healthcare NHS Trust

In this trust, we saw how allocating staff differently could help to increase consultant capacity and reduce waiting lists.

Nurse-delivered Inflammatory Bowel Disease (IBD) clinics have reduced consultant waiting lists, freed up capacity and enabled patients to be seen more rapidly when their condition is flaring.

The nurse-delivered service began as a response to waiting lists for consultant-led outpatient care. Many patients require ongoing management and support, which can be delivered equally well by specialist nurses.

The trust started with one clinic a week at each of its two main sites in Eastbourne and Hastings in 2011. The service has since grown to seven face-to-face and two telephone clinics, all nurse-delivered, across the trust each week. Although some consultants were initially reluctant to refer their patients, they have now embraced the system, having seen the benefits for patients and overall capacity.

The nurse-delivered model has recently been extended to nurse endoscopist clinics and is working well, with four of these clinics a week now established across the trust.

Results

Waiting lists for outpatient care have reduced significantly. Patients have rapid access to clinics in line with IBD care standards. Nurses have more time in their clinics to be able to speak to patients, support them and explain diagnoses. Overall, more than 20% of all outpatient clinics in gastroenterology at the East Sussex trust are nurse-delivered, compared to an England average of 5.1% (according to HES 17/18 data).

Addressing the pensions problem

Consultants who previously propped up services by working additional hours have been moving to working fewer hours throughout 2019 and 2020, due to a well-recognised challenge with NHS pensions.

In early 2019, consultants discovered that if they worked enough additional hours, the extra income they received was outweighed by an increased tax bill. As this became more widely known, consultants began to reduce their working hours to avoid working extra hours without pay. Although the government has introduced measures to deal with this issue, at the time of writing they have not been able to find a solution that has encouraged enough consultants to increase their hours again to meet the growing patient demand.

For the purposes of this report, we are particularly concerned about the risk that consultants, having dropped sessions, or having experienced increased workload during COVID-19, may be reluctant to return to previous patterns of overtime.

We also note that the pensions issue has been a particular problem for gastroenterology. This is because the specialty has previously relied heavily on consultants working extra hours, for example additional Programmed Activities (PAs) helping with endoscopy lists, ward rounds, clinics, on-call and rota gap cover, or with Waiting List Initiative work. Increasingly, consultants and other staff are dropping these extra hours. Trusts that relied on this additional capacity are now needing to turn to more expensive alternatives.

Recommendations: service design and workforce organisation

Recommendation	Actions	Owners	Timescale
1. Revisit working practices and service organisation to maximise workforce capacity.	**a** Introduce more six- or seven-day services and extended hours for inpatient ward rounds and endoscopy.	Trusts	Within 18 months of publication
2. Review contractual arrangements for gastroenterology staff to create efficiencies and address long waiting times for outpatient services.	**a** Review consultant job plans to allow for more effective use of Direct Clinical Care (DCC) time, including by considering annualised job plans, timetable flexibility and backfill to allow for additional cover.	Trusts	Within 6 months of publication
	b Review consultant job plans to ensure there is a mutually acceptable balance in commitments to gastroenterology and to reduce general medicine commitments where possible. Where this increases elective work and leads to more radiology and pathology requests, ensure this is planned and resourced.	Trusts	Within 6 months of publication
	c Agree an appropriate allocation of leadership Programmed Activities (PAs) in relevant consultants' job plans to lead gastroenterology as a service, endoscopy as a service, training in endoscopy, and surveillance services (as appropriate for the trust's needs).	Trusts	Within 12 months of publication

Maximising the effective use of clinical time

Reducing the number of patients who do not turn up for appointments

Many patients fail to turn up for their appointments or cancel them at short notice, meaning much needed capacity is lost and cannot be used for other patients. This also causes an extra administrative burden for trusts.

A significant number of patients do not attend gastroenterology outpatient appointments. While this is common to many specialties, it is particularly an issue for hepatology, possibly due to stigma about the disease, or possibly because planning can become more difficult for some patients with liver disease. Many of the interventions we have mentioned below in *Improving access to liver disease support services* on page 78, such as increasing access to helplines or providing outreach community clinics, may help to counter this problem.

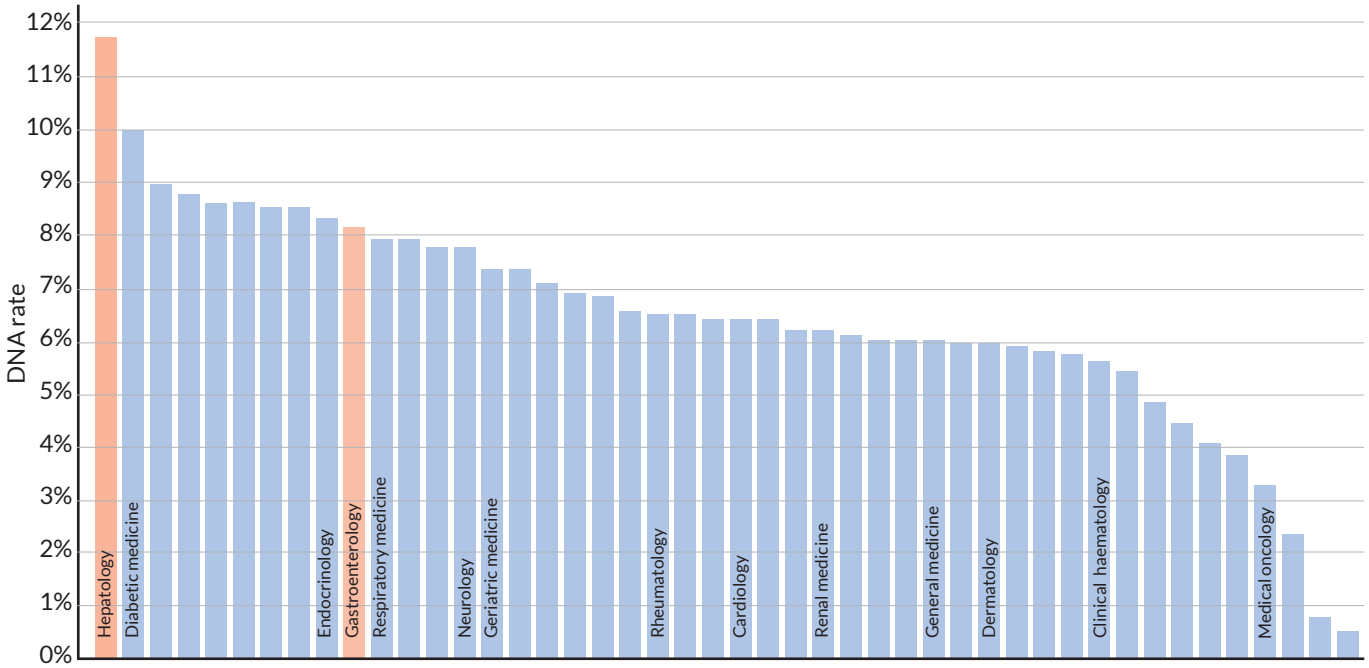
It is also possible that where routine waiting times are particularly high, this will also result in more patients failing to attend – either because they have forgotten their appointment, or because their symptoms have since resolved.

We have discussed other potential barriers to attending appointments for all gastroenterology patients, along with potential solutions, under *Personalised care planning* on page 45.

Figure 7 below compares the two gastroenterology specialties – general gastroenterology and hepatology – to other specialties, with a few specialties labelled to give extra context. Hepatology has the highest Did Not Attend (DNA) rate out of all these specialties, at 11.7%. Gastroenterology also has a high rate of 8.2%. There is also considerable variation in DNA rates for gastroenterology that the trusts reported themselves as part of our questionnaire (see **Table 2** on page 44).

Please note that the HES data in **Figure 7** will be more accurate than the information in **Table 2**, as **Figure 7** is from national data rather than self-reported.

Figure 7: National Did Not Attend (DNA) rates, split by specialty



Source: HES OP Apr 18 - Mar 19

Note to graph: in this chart, we limited the specialties chosen to those with 450,000 or more outpatient attendances in the financial year 2018/19. This trimmed out low-activity specialties, so the refined list is comparable to the activity volumes for gastroenterology and hepatology.

Table 2: Variation in DNA rates across gastroenterology departments (self-reported)

DNA rates (All providers - average 2018/19)	Min	Max	Average	Number who responded to this question
General gastroenterology outpatients	3.8%	24.0%	10.5%	97
Luminal outpatients	3.0%	20.0%	9.3%	54
Hepato-pancreato-biliary (HPB) outpatients	3.7%	35.0%	12.5%	61
Endoscopy	0.2%	15.0%	5.3%	115

Data source: GIRFT Gastroenterology questionnaire (providers own responses) 2019

There is general guidance on how to reduce DNA rates in the NHS Improvement report *Reducing did not attends*[44], which includes tools to identify reasons for DNAs and strategies to mitigate these.

[44] *NHS Improvement https://improvement.nhs.uk/documents/2108/reducing-dna.pdf*

CASE STUDY

Validating lists to increase gastroenterology clinic capacity and reduce DNAs

Milton Keynes University Hospital NHS Foundation Trust

Administrative and clinical validation of gastroenterology clinic lists enabled the unit to reduce the volume of follow-up appointments, reduce DNA rates and optimise capacity.

The aim was to see the right patients at the right time, reduce unnecessary visits to hospital for patients and free up clinic capacity to manage long waiting lists. First the team sifted clinic lists to remove duplicate requests and other administrative errors. As part of the clinical validation process, they developed criteria to identify patients who could be safely discharged.

To avoid DNAs, patients are notified of their appointments with enough time to change them if necessary, with a 48-hour reminder service by text.

Results

Duplicate requests have been eliminated, while clinical validation enabled the unit to discharge up to 30% of patients on outpatient waiting lists with appropriate advice. Gastroenterology clinic DNA rates are now 5%, which is much lower than the national average, helping to make best use of available capacity.

Personalised care planning

There can be many reasons why patients with digestive and liver diseases find it challenging to attend appointments. For example:

- Patients with bowel conditions may have to consider how they will manage visits to the toilet while travelling to and attending the hospital.
- Patients may have difficulties attending appointments due to the ongoing socio-economic impact of living with a long-term condition.
- Patients may be attending frequent appointments, potentially at different sites, due to comorbidities or multiple investigations.
- Patients may be embarrassed discussing their symptoms or habits, such as their bowels or their drinking.
- Patients may be embarrassed or fearful of examinations that may be needed (for example endoscopy), or about the potential results (for example cancer or cirrhosis).
- Patients may have low motivation to attend, for example because they feel their outcome will not improve, their mental health is poor, or their relationship with their clinician has broken down.

Clinicians need to take account of these challenges and personalise care planning to the patient's individual needs – for example by any of these measures:

- Considering a virtual clinic where appropriate. Virtual clinics have become more common as part of the response to COVID-19, but in our (pre-COVID-19) research, we found that 28% of the trusts that responded to our question did no virtual clinics at all.
- Choosing an appointment at a venue that is as close to the patient's home as possible.
- Reviewing whether toilet facilities in clinics are appropriate.
- Signposting information and support from charities and other support organisations (see *Involving and supporting patients: the role of charities* on page 47).
- Considering how the trust can provide psychological support for patients, especially those with chronic conditions such as Inflammatory Bowel Disease (IBD). In our research, we asked trusts whether they provided any psychological support for patients with IBD: of the trusts that responded to our question, only 26 out of 90 (28.9%) did so.

If clinicians can personalise care in this way, patients may be more motivated or more able to turn up to appointments.

Ensuring patients do not need to be turned away from endoscopy appointments

When patients do turn up for appointments, it is important that they do not end up having to be turned away because they have not been prepared correctly for their procedure, or are not suitable for the test. Endoscopy units can improve this using the following measures:

- Carrying out a pre-assessment – phoning patients a few days before their appointment to make sure they have paused medication (such as iron supplements or blood thinners if appropriate) that may otherwise prevent them from having their endoscopy.
- During this assessment, running through any bowel preparation or other measures needed (such as fasting requirements) with the patient, to ensure they understand everything correctly and can undertake preparation safely.
- For NBCSP colonoscopies, patients are pre-assessed in person by a Specialist Screening Practitioner (SSP), who runs similar checks. SSP appointments can also ensure that patients are directed to alternative pathways (such as having a scan instead of an endoscopy) if it is clear that the patient would be unable or unwilling to have a colonoscopy. According to Public Health England, 99.5% of patients who have been assessed by an SSP, and are fit and willing to have a colonoscopy, go on to attend their appointment. This may therefore be a useful example to inform other pathways.
- Providing patients with a point of contact and clear information about pathways and timescales while awaiting the outcome of tests and investigations.
- Ensuring patients have good quality, well-explained patient information – in leaflets and online (to prevent poor print quality, photocopying photocopies etc), and in the correct languages. Where possible, video information can help patients with poor literacy. While we encourage trusts to provide this information themselves, there are also valuable resources provided by charities, including videos (see *Involving and supporting patients: the role of charities* page 47).
- The National Institute for Health and Care Excellence (NICE) also provides practical guidance on producing information, and on sharing decision making, both of which can improve attendance. This is part of *Clinical guideline CG138, Patient experience in adult NHS services: improving the experience of care for people using adult NHS services*[45].

[45] *www.nice.org.uk/guidance/cg138*

Involving and supporting patients: the role of charities

Several UK charities, including the BSG itself, provide excellent resources to support patients with different digestive and liver conditions. These resources can help patients to educate themselves about their conditions and to self-manage symptoms – which can in turn help to reduce the demand on NHS resources.

We also recognise the vital importance of involving patients in decision making, both in individual treatment pathways, and when developing services. Many departments already have patient panels that can help with shaping services, but clinicians may also find the tools provided by charities helpful in supporting this involvement.

Charity information can also be very useful in helping patients prepare correctly for procedures, and understand what to expect during recovery. We encourage trusts to develop effective material themselves (see *Ensuring patients do not need to be turned away from endoscopy appointments* page 46), but charities may provide additional sources of information.

A few examples of helpful charities and resources:

- **For all digestive conditions: BSG**
  www.bsg.org.uk/resource-type/patient-resources/
  As well as supporting gastroenterology clinicians, the BSG also publishes patient-focused information leaflets for download, as well as useful news features.
- **For Inflammatory Bowel Disease (IBD): Crohn's and Colitis UK**
  www.crohnsandcolitis.org.uk/
  This charity supports patients in finding appropriate care, has helplines for advice and emotional support, and advocates for patients. It also issues over 50 extremely useful information leaflets, for example covering conditions, symptoms, investigations, treatment, support, and practical lifestyle options for reducing symptoms. The charity also provides a patient engagement toolkit for professionals, aimed at enabling and encouraging shared decision making.
- **For IBD: IBD UK**
  https://ibduk.org/ibd-standards
  IBD UK (a partnership of 17 patient and professional organisations) produces and regularly updates the IBD standards, which state what high-quality care should look like at every point of the patient's journey. IBD UK also produce resources to support the standards, including a benchmarking tool and patient survey.
- **For all digestive diseases affecting the gut, liver and pancreas: Guts UK**
  https://gutscharity.org.uk/
  Guts UK provides a wide range of patient information, including downloadable leaflets, and promotes awareness of many digestive conditions. Its website includes a wealth of information about each condition and provides advice on managing symptoms.
- **For liver disease: British Liver Trust**
  https://britishlivertrust.org.uk/
  This charity provides patient information, including downloadable leaflets, and support for all liver diseases. Their website includes a health screener to help patients identify whether they are at risk of liver disease. It also has virtual support groups for patients to connect with other patients with similar conditions. The charity provides a Clinical Advisory Group to support professionals.

Please also see *Charity support during COVID-19* on page 130 for the vital role that charities played during the pandemic.

Recommendations: reducing wasted clinical time

Recommendation	Actions	Owners	Timescale
3. Optimise outpatient and day case services, maximising the effective use of clinical time.	**a** Look at ways to reduce Did Not Attends (DNAs) and cancellations using existing *NHS Improvement guidance* and *NICE clinical guideline CG138*[46] to help optimise capacity and reduce waiting times.	Trusts	Within 12 months of publication
	b Review pre-visit patient information provision to reduce the risk of patients having to be turned away at attendance or admission.	Trusts	Within 12 months of publication
	c Consider ways to personalise care planning around the patient's needs so they are more motivated and more able to attend appointments.	Trusts	Within 12 months of publication

[46] *www.nice.org.uk/guidance/cg138*

2. Managing patient demand

While the recommendations in Section 1 aim to help trusts make the most of the capacity they have – and hopefully increase it – we also need to tackle the increasing demand for gastroenterology services. That involves looking at ways to either reduce demand in the first place, or to funnel demand in the most efficient way – including how some patients are managed within the primary care setting.

Firstly, we must triage patients appropriately, to limit the number of patients being referred where there is little clinical benefit. Secondly, if a patient needs to be referred, we must ensure this referral is to the correct service. Currently, some patients wait for a long time only to discover that they have been sent to a service that is not suitable for them.

Managing referrals

Improving triage by using a Clinical Assessment Service

During our visits, we found that triaging systems varied between trusts. In some cases, patients were being referred to incorrect clinics, wasting the patient's and the clinician's time.

We found that an effective Clinical Assessment Service (CAS) helped to ensure outpatient referrals were vetted to prioritise patients to the correct care first time – for example, so that patients were:

- referred to the correct clinic;
- sent for pre-investigation where appropriate;
- referred direct to test where appropriate;
- redirected or discharged back to the GP with a recommendation on alternative pathways, if the referral was inappropriate.

A CAS may also help to redirect older, frailer patients to elderly care services – for example if the waiting list is shorter and if this is a more suitable service for them. Trusts need to build this into strategic planning – using insight into their demographic mix – to ensure they have capacity in elderly care services.

Trusts will also need to consider the effect of using a CAS on radiology services. In some cases, the use of senior clinical triage may reduce demand by preventing unnecessary referrals and investigations. In other cases it may increase demand, if patients are referred direct to test. Trusts will need to interrogate their own data to ensure that any increased demand can be adequately resourced.

What is a Clinical Assessment Service?

A Clinical Assessment Service (CAS) sits between the GP and the hospital and helps to direct patients to the right service. Referring GPs may not always have the specialty expertise to direct patients to the most effective and appropriate care pathway – a CAS fills that gap.

A CAS is managed by clinicians in the relevant specialty – so a gastroenterology CAS will be managed by gastroenterologists.

For more about using a CAS, see: *https://digital.nhs.uk/services/e-referral-service/document-library/clinical-assessment-services.*

Some trusts use other options to help with triage:

- With Advice and Guidance services in gastroenterology, a gastroenterologist is available to discuss potential referrals with GPs, helping them to decide whether they are making an appropriate referral, and which referral pathway to choose. These can be very effective in guiding referrals, for example by clarifying whether a patient should be referred to a medical gastroenterology team or a gastrointestinal surgical team. Another advantage of Advice and Guidance services is that GPs can be advised on whether they should carry out further investigations or begin treatment in primary care prior to referral to secondary care.
- A Referral Assessment System (RAS) is similar to a CAS, but does not generate an 'encounter' – an episode of care against which pre-investigations can be booked. Although these options can be helpful, we feel a CAS is preferable, as it also allows for pre-investigations, some of which GPs may not have direct access to in primary care. This then may mean fewer patients need to be seen in clinic and more patients can be discharged at their first (new patient) clinic attendance. This will reduce clinic waiting times for new and for follow-up patients.

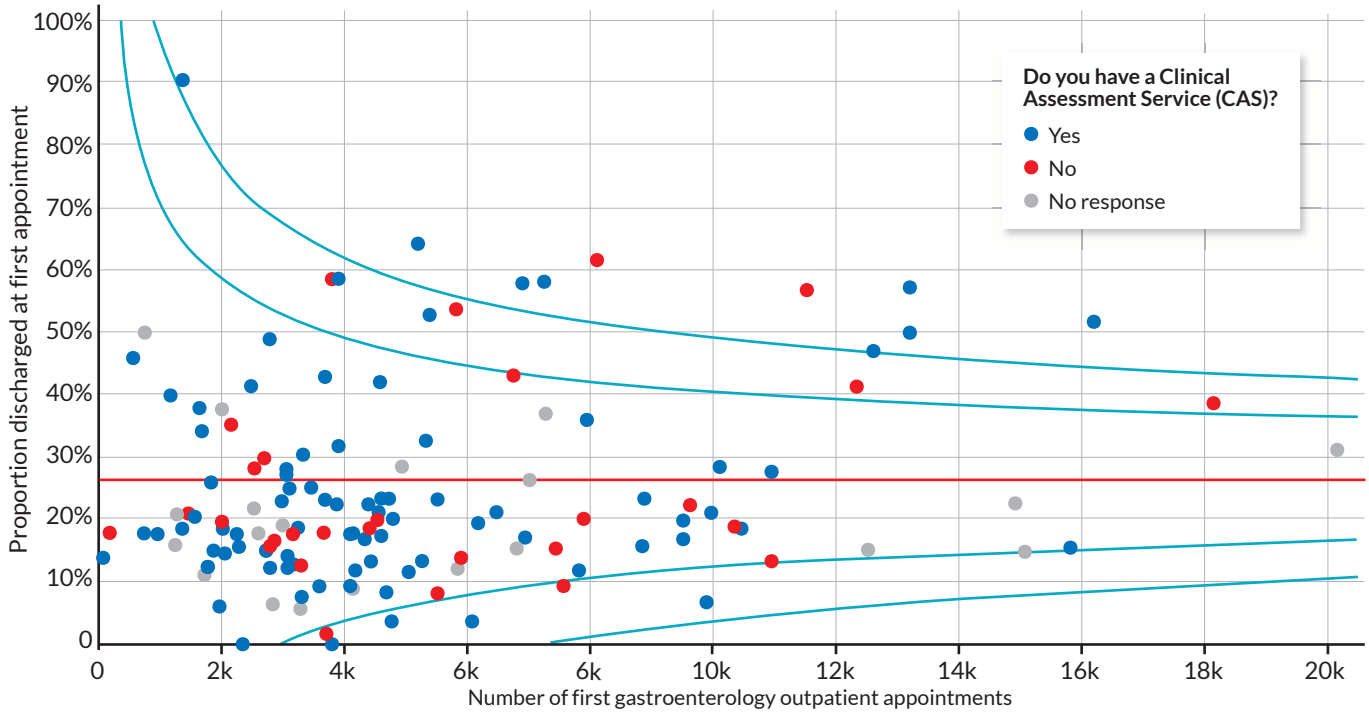
With a CAS system, some GP-referred patients will not be seen in clinic – for example if the vetting shows that this is an inappropriate referral, or if pre-investigation tests indicate the patient is low-risk. Instead, a letter can be sent to the GP and patient with advice. This means patients may not attend clinic, but may still need vetting and to have tests. This work takes time, which needs to be budgeted for and job-planned.

Using a CAS should help ensure that:

- clinic and referral waiting times improve;
- the number of patients discharged from clinic at their first outpatient appointment can increase;
- older, frailer people can be redirected to elderly care services (where appropriate), who will hopefully ensure patients are seen more quickly and more holistically.

Figure 8 below shows the relationship between having a CAS and discharging patients at first appointment. However, although 71% of gastroenterology departments reported having a CAS in their questionnaire response, during our visits we found that some of these did not actually have a formal CAS in place. Some trusts may also use an Advice and Guidance service to help them pre-vet referrals without a full CAS service in place. These factors may explain why the correlation is not stronger.

Figure 8: Proportion of patients discharged at their first gastroenterology clinic appointment



Source: HES OP Apr18-Mar 19 & GIRFT questionnaire 2019

When reviewing CAS usage, trusts may need to consider that this may change over time: initially the CAS will cut the number of unnecessary referrals, or those without pre-investigation, and discharge more at first visit. With time, it may be that referrers begin to refine the quality of their referrals, and so fewer patients are discharged on first visit. This may mean numbers of patients discharged at first appointment rise at first, then drop, but referrals generally are still better targeted.

CASE STUDY

Reducing outpatient appointments through virtual triage with GPs

St Helens and Knowsley Teaching Hospitals NHS Trust

This trust, which already had a referral management system in place to vet all clinic referrals, extended this to include consultant vetting to ensure appropriateness. It then extended the triage processes to include a Virtual Referral Triaging Clinic each day during the COVID-19 pandemic. This has reduced the need for hospital appointments and follow-ups, freeing up clinic capacity. Consultant time is job planned each day to ensure a robust and timely service.

The team has found that a significant number of patients can be managed remotely with Advice and Guidance to the GPs, or go direct to test. They can then either be seen in clinic for a single appointment, redirected to an appropriate chronic disease clinic, or discharged without the need for a clinic review.

The trust also reduced the need for gastroenterology follow-up appointments after investigations by:

- initiating investigations at the first consultation along with a care plan;
- writing to the patient with the results of investigations if follow-up was not required;
- redirecting patients who needed longer-term follow-up into nurse-led chronic disease clinics.

Results

The number of patients discharged after their first clinic appointment has increased to 51%, double the national average (according to HES 17/18 data). Clinic capacity has increased and more patients are seen in the most appropriate setting for their needs. The trust intends to audit the Virtual Referral Triaging Clinic to determine absolute benefits, and to ensure the system can be appropriately funded to allow it to be sustainable. They feel this may remove the need for their commissioned referral management system.

CASE STUDY

Implementing a successful Clinical Assessment Service (CAS) triage process

The Royal Wolverhampton NHS Trust

The trust implemented a CAS triage process in response to a significant increase in demand for new outpatient gastroenterology referrals, which were outstripping the department's outpatient capacity.

Senior-level clinical triage is key to the CAS's success, with gastroenterology consultants triaging referrals to the most appropriate pathway. The CAS also includes arranging pre-investigations for patients, as appropriate, enabling more effective consultations and reducing the need for follow-ups.

GPs send in a standard referral letter, and consultants complete an electronic proforma, which establishes four possible routes for the referral:

- an outpatients appointment, in a fast-track, urgent or routine slot;
- an appointment, but with simple pre-investigations;
- direct-to-test pathway, such as endoscopy – results are then reviewed by consultants who decide whether to discharge or offer an outpatient appointment;
- discharge to GP, with advice on alternative pathways, where a referral is deemed inappropriate for gastroenterology.

Wherever possible, the department developed standardised letters to fit in with this process. The proforma is also linked to a database, which is used for audit.

The system was carefully planned, including a pilot phase and engagement with GPs and patients. Dedicated clerical staff were recruited to manage CAS-related administrative work.

Results

The CAS has performed well, and has consistently:

- reduced face-to-face outpatient appointments;
- improved and maintained 18-week referral standards;
- reduced outpatient follow-up appointments;
- increased consultant time to deliver other services, such as ward work and endoscopy;
- reduced Clinical Commissioning Group costs for outpatient services.

The trust was also careful to measure CAS outcomes:

- In early results, 32% of CAS-triaged patients did not require a face-to-face appointment, saving the equivalent of 361 clinic sessions. More recent results suggest that around 45% of patients did not require a face-to-face appointment.
- 60.1% of patients were offered a new outpatient appointment.
- 23.8% of patients had investigations arranged before their outpatient appointment.
- Did Not Attend rates reduced from 14% to 8%.
- The need for follow-up appointments reduced.
- 5.5% of patients were discharged directly back to primary care.
- The re-referral rate of patients who were not seen face-to-face was only 0.5%, and no serious pathology was missed in this group of patients.
- Feedback from GPs and patients indicated very high levels of satisfaction with the process.

Ensuring patients are directed to the correct clinic

Due to a flaw in the Electronic Referral System, GPs can sometimes refer patients incorrectly – to a gastrointestinal (GI) medicine clinic instead of a GI surgical clinic, for example, or vice versa. This is a significant waste of time for the patient and clinician alike. A CAS service would pick this up early and redirect referrals to the correct service, to reduce delays in patient care. Trusts also need to ensure their own Directory of Service describes the different services clearly.

Recommendations: managing referrals

Recommendation	Actions	Owners	Timescale
4. Consider triaging solutions to direct referrals appropriately and improve outpatient waiting times.	**a** Implement a Clinical Assessment Service (CAS) with senior clinical decision maker triage to review outpatient department referrals, and ensure there is budget and job-planned time allocated for running this.	Trusts, CCGs	As soon as possible after publication
	b Clarify the differences between a gastrointestinal medical clinic and gastrointestinal surgery clinic in the Electronic Referral Service.	NHS Digital, Electronic Referral Service	As soon as possible after publication

Increasing collaboration with providers and patients, and providing alternative pathways

Collaborating with primary care colleagues

Throughout the GIRFT process, the value of close collaboration with primary care was very clear. Trusts should aim to see primary care colleagues as part of a multidisciplinary team, providing holistic care for patients with digestive and liver disease.

The Royal College of GPs has carried out research in this area alongside Crohn's and Colitis UK. The research identified that many GPs lack confidence in requesting and interpreting faecal calprotectin tests, used to help diagnose and manage Inflammatory Bowel Disease (IBD), and in how to manage a patient with IBD experiencing a flare. This research resulted in an *IBD toolkit*[47] to support primary care practitioners in managing IBD.

Clinicians may find this toolkit useful, and may wish to integrate it into clinic IT systems to facilitate more effective co-ordinated care.

To further support and integrate primary care, in some areas IBD nurse specialists run GP education and awareness sessions and staff dedicated advice lines. In one example of this service, GPs were able to access real-time advice from gastroenterology specialists and connect directly to the IBD specialist nursing team. Between July 2016 and March 2017, 48% of calls to the service avoided a referral[48].

Considering closer working between specialties

Some trusts may be able to consider creating an Integrated Care for Digestive Diseases Service, combining GI medical and GI surgical services. This can improve visibility of gastroenterology overall, as well as helping to rationalise services such as endoscopy. An integrated service can also help streamline and clarify referral pathways, and helps to raise awareness of how gastroenterology supports surgery. Better awareness of the full breadth of gastroenterology's role can help in discussions about general medicine commitments.

Supporting self-management and patient activation

Clinicians should aim to support patients with self-management of their conditions as far as possible: this may involve working more closely with primary care colleagues as part of multidisciplinary teams.

Evidence shows that when people are supported to have the knowledge, skills and confidence to manage their own health and care – known as 'patient activation' – they benefit from better health outcomes, improved experience of care and fewer unplanned admissions[49]. See *The King's Fund report on patient activation*[50] for more on how trusts can use this approach. The NHS England website[51] also includes some evidence and case studies on patient activation. For example, studies in Islington CCG[52] found that patient activation was associated with fewer visits to both general practice and emergency departments, and self-management capability in patients with long-term conditions was associated with reduced use of healthcare[53].

Some examples of how trusts can support self-management:

- Clinicians can collaborate with primary care colleagues to ensure patients have access to blood tests and stool tests, such as faecal calprotectin, that can help with diagnosis and support patients with regular self-management and self-monitoring.
- Specialist nurses can advise patients on self-management via phone or video call clinics.

When looking at support for self-management, there is also a wealth of charity resources available – see *Involving and supporting patients: the role of charities* on page 47.

[47] *IBD UK www.rcgp.org.uk/ibd*

[48] *NHS England (2017) Transforming gastroenterology elective care services www.england.nhs.uk/wp-content/uploads/2017/11/gastroenterology-elective-care-handbook.pdf*

[49] *Hibbard, J. and Greene, J. (2013) What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs*

[50] *www.kingsfund.org.uk/sites/default/files/field/field_publication_file/supporting-people-manage-health-patient-activation-may14.pdf*

[51] *www.england.nhs.uk/personalisedcare/supported-self-management/evidence/*

[52] *www.rcpjournals.org/content/clinmedicine/17/Suppl_3/s15*

[53] *https://qualitysafety.bmj.com/content/27/12/989*

Sharing decision making about gastroenterology interventions

Clinicians should work towards shared decision making with patients in their care, part of which involves managing expectations about what investigation and treatment can achieve. Shared decision-making helps patients to feel more confident in managing their condition and seeking specialist advice and support when needed.

Many gastrointestinal conditions can be effectively managed in a primary care setting with lifestyle advice and by using treatments for symptoms, such as Proton Pump Inhibitors (PPIs) for dyspepsia and reflux. Further investigations may not change this treatment plan.

Again, trusts may need to work with primary care colleagues to manage patients' expectations about the length of gastroenterology waiting lists, longer term prognoses, the value of treatment for symptoms, what treatment entails, and what benefits interventions can realistically deliver. Patients can then actively share in decisions about their future treatment.

This is especially relevant to older, frailer patients with multiple comorbidities, where the harm or distress of further investigations – especially if these are invasive procedures – needs to be balanced with likely benefits and life expectancy.

Providing access to alternative pathways

As well as working with primary care colleagues to encourage self-management, we saw trusts employing a range of additional services to reduce waiting lists. Depending on patient mix, trusts might benefit from considering services such as the following:

- Direct access endoscopy – for example patients on two-week wait referrals could be booked direct to endoscopy where this is appropriate for them, rather than going through a clinic route. The *NICE guideline NG12 on Suspected cancer: referral and recognition*[54] can help primary care colleagues with these referrals. When considering direct access services, trusts may need to consider whether to add a pre-assessment service to ensure that patients are suitable and sufficiently prepared for the procedures – see *Ensuring patients do not need to be turned away from endoscopy appointments* on page 46.
- Dyspepsia clinics – these clinics, which can be delivered by nurses, could help to divert some referrals from consultant-delivered clinics and also may reduce inappropriate gastroscopies.
- Assessment of liver disease via fibroscan or appropriate blood tests.
- Access to dietician-led clinics (in person or via video or phone) for patients with coeliac disease.

Many trusts already use direct access endoscopy for gastroscopy, but as part of this review they should consider direct access to other services too, such as lower GI endoscopy and CT scans – for example where the GP refers for potential pancreatic cancer.

Where alternative pathways may impact radiology, for example in direct access to CT scans, trusts will need to ensure this is adequately planned and resourced.

[54] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*

Recommendations: increasing collaboration with providers and patients, and providing alternative pathways

Recommendation	Actions	Owners	Timescale
5. Work with primary care colleagues to improve awareness of and access to alternative services, support self-management and shared decision making with patients, and manage expectations and understanding of referral pathways and the value of interventions.	**a** Review access to services and consider whether to introduce additional services to ease waiting lists, such as supported self-management, direct access endoscopy (in line with *NICE guideline NG12 on Suspected cancer: referral and recognition*[55]) or nurse-led dyspepsia clinics.	Trusts, primary care providers	Within 12 months of publication
	b Refer patients to appropriate resources for self-management and self-education (patient activation), and support shared decision making.	Trusts, primary care providers	Ongoing
	c Manage patients' and primary care colleagues' expectations and understanding about gastroenterology interventions to reduce the likelihood of inappropriate referrals.	Trusts, primary care providers	Ongoing

[55] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*

3. Endoscopy

The themes of optimising capacity and managing patient demand that we have already explored are particularly relevant to endoscopy, as the demand for both diagnostic and therapeutic endoscopy continues to increase. This is as a result of the increasing age of the population, increasing burden of disease, expansion in screening and technological advancement of available endoscopic procedures.

The age of the patient is a particular issue for endoscopy referrals. Currently, GPs and other referrers will generally refer patients to a particular service based on symptoms, but the age of the patient should also be a factor in choosing the most appropriate referral pathway. Some younger patients may benefit from having lifestyle advice, a trial of symptomatic treatment, or non-invasive investigations before considering a referral for endoscopy. This may give a better basis for diagnosis, or mean they do not need to be referred for endoscopy at all.

For older, frailer patients, referral pathways need to be flexible to reflect their overall state of health. For example, colonoscopies may not be appropriate for these patients if they cannot safely undergo the preparation for the test or the test itself. They may benefit from being referred to elderly care services, where they may be seen sooner and with a more holistic approach that takes their frailty and life expectancy into account.

Another key issue for endoscopy is managing expectations – from GPs as well as patients – about what the service can and cannot deliver. Sometimes it may be in the patient's best interests not to perform an endoscopy, or not to carry out an invasive procedure. For younger patients, lifestyle advice and simple self-care may be all that is needed to resolve symptoms. For older patients, rather than defaulting to referring, testing and treating patients, clinicians (including GPs) need to take time to explain the longer-term outlook, and whether more conservative treatment to relieve symptoms may be the best option – especially where the patient has other health issues and a limited remaining life expectancy.

The following section covers endoscopy in general, gastroscopy and colonoscopy. Endoscopic Retrograde Cholangio-Pancreatography (ERCP) is covered later in this report (see *Liver, pancreas and biliary system* on page 76).

Endoscopy in general

JAG accreditation

As we have already seen, waiting times in gastroenterology can vary greatly, including for endoscopy. One additional challenge of the increased waiting times for endoscopy appointments is that more endoscopy units are struggling to achieve or retain Joint Advisory Group on Gastrointestinal Endoscopy (JAG) accreditation because of long waiting times for their patients.

Trusts on the National Tariff Payment System can claim a Best Practice Tariff (BPT) if they have been awarded JAG accreditation. BPTs are designed to provide a financial incentive to promote improved and consistent standards across services. If a unit has JAG accreditation, they can claim 100% tariff for an endoscopy procedure. Units that do not have JAG accreditation can only claim 95% tariff, so there is a considerable financial incentive for maintaining the accreditation.

Many acute trusts are now on 'block' contracts, where a fixed budget is agreed in advance with commissioners for a certain period of time. When these fixed budgets are due to renew, JAG accreditation may also affect this negotiation.

According to the JAG website, of the 227 endoscopy units within acute NHS trusts in England:

- 178 (78%) of the NHS endoscopy units in England have received a JAG assessment (as at February 2020, before the onset of the COVID-19 pandemic);
- 49 units have not yet been assessed or are in the process of undergoing assessment – there is a rolling programme for re-accrediting annually and a five-yearly on-site assessment team visit.

Out of the 178 endoscopy units assessed:

- 58.4% (104 units) received JAG accreditation;
- 24.2% (43 units) were advised by JAG that their unit 'requires improvement';
- 17.4% (31 units) were not awarded JAG accreditation.

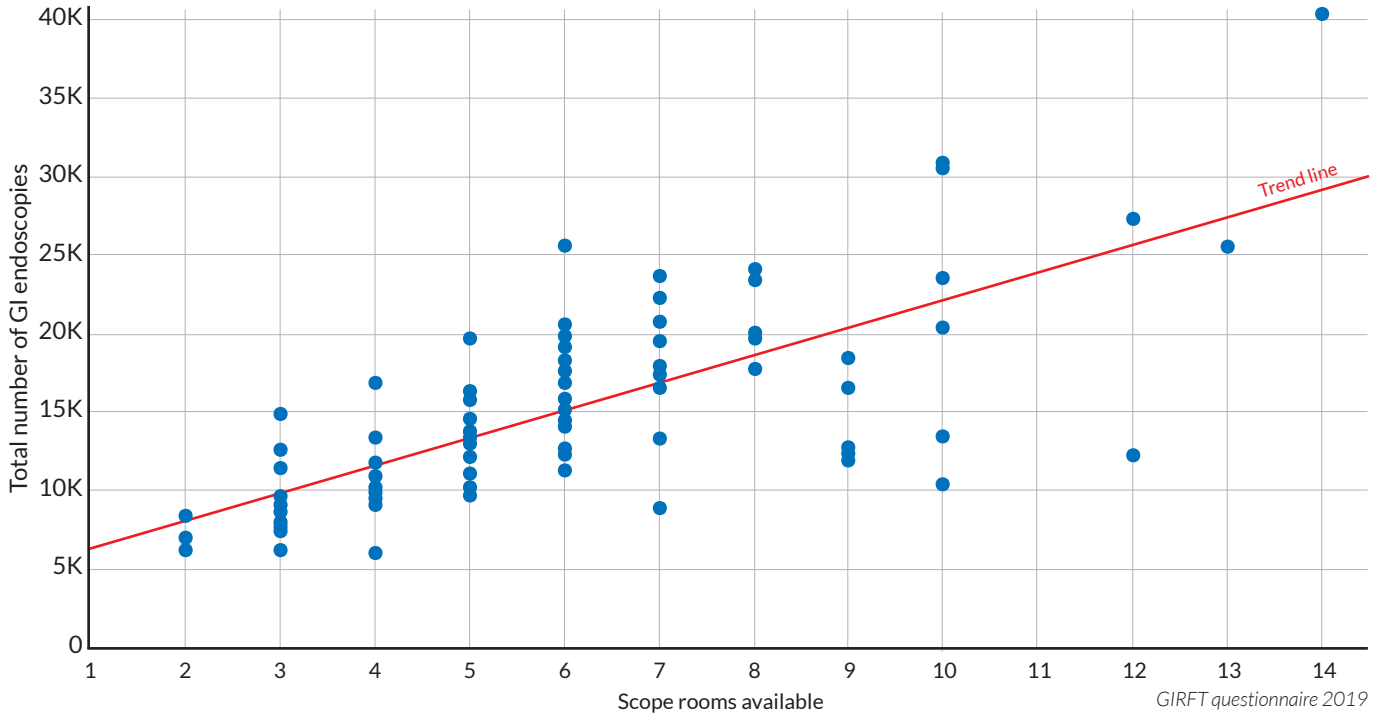
Land-locked units

In some trusts, there is an additional physical barrier to expanding endoscopy units to meet demand: this is where units are physically 'land-locked' within trusts, with no space to add new endoscopy rooms or expand to allow separate single-sex recovery areas.

Figure 9 below shows that – as you would expect – the more rooms a trust has, the more gastrointestinal (GI) endoscopies they tend to carry out. However, there is variation in how efficiently available rooms are used. For example, one trust with five rooms is performing more GI endoscopies than another trust with 12 rooms, and trusts with ten rooms available vary greatly in the number of GI endoscopies they have carried out – from 10,000 to 30,000 endoscopies in 2018/19.

It is important to note that there are many factors that could account for some of the variation in this chart, including the complexities of procedures that the departments are carrying out and how many non-GI endoscopies are also being performed in the endoscopy units. Departments that are carrying out more complex therapeutic procedures will carry out fewer of these procedures per list in comparison to simple diagnostic procedures. Another way to look at this issue would be to look at points of endoscopy activity, which are assigned to procedures according to complexity. However, we were unable to do this as this data is not available in HES, and so looked at volume of procedures against scope rooms instead.

Figure 9: Variation in gastrointestinal (GI) endoscopy activity and rooms available



Note to graph: the red line on this chart is a trend line that shows the relationship between number of endoscopy rooms and number of GI endoscopies carried out (based on averages).

Trusts that are using rooms efficiently tend to be:

- reducing Did Not Attend rates and late cancellation rates (see *Service design and workforce organisation* on page 35);
- using all slots efficiently during the week and weekend (see *Service design and workforce organisation* on page 35);
- back-filling all available endoscopy rooms to avoid any wasted capacity;
- flexible about how they are using lists – for example, flexing from a gastroscopy to a colonoscopy list in response to changes in demand coming through. Trusts that maintain good real-time data about demand, and use flexible or annualised job plans, tend to be able to flex lists more easily.

As well as our recommendations to trusts, GIRFT will liaise with NHS England and NHS Improvement to review options to support trusts that cannot currently expand endoscopy capacity due to restricted space.

CASE STUDY

Planning to meet future endoscopy demand and increase productivity

Wirral University Teaching Hospitals NHS Foundation Trust

Early planning for future endoscopy demand has enabled Wirral to keep pace with the predicted increases in capacity required of their service over time (pre-COVID-19). They were able to increase endoscopy capacity, improve productivity and reduce waiting times for patients, while providing a full seven-day service.

As part of a review of endoscopy services in 2014, the trust projected future demand and factored this into their refurbishment of the endoscopy unit. They built in growth capacity to their refurbishment to meet future need. The unit expanded from four to seven procedure rooms, with two of these rooms initially 'moth-balled'. They have then been able to expand into these additional rooms as demand (predictably) grew over time. This has not only enabled them to keep pace with rising patient numbers, but is also helping them to address some of the backlog of cases deferred as a result of COVID-19.

The unit has introduced flexible timetabling so that lists can be back-filled, optimising efficient use of time slots and facilities. It also took part in a regional capacity and demand review by the Cheshire and Merseyside Endoscopy Cancer Alliance Group in 2018 to benchmark against other trusts, standardise processes and learn from best practice.

Results

The Cancer Alliance review found the Wirral was a 'high-performing service in most areas'. The unit met all surveillance waiting time standards and had one of the quickest turnaround times for endoscopy patients in the region. Use of the rooms was efficient: the average length of time there was a patient in the endoscopy room during an endoscopy list was 68%: anything over 65% is deemed an excellent use of resource. The remaining time between cases during a list is used for report writing, cleaning and setting the room up again with the equipment for the next procedure.

CASE STUDY

Capturing real-time demand data to keep better track of endoscopy referrals

The Royal Wolverhampton NHS Trust

The trust developed an Electronic Referral System for endoscopy which allowed the department to access and analyse daily real-time demand data for each procedure – data that is often difficult to access. This helped the department to balance demand and capacity.

As in all trusts, Wolverhampton was experiencing clear increases in demand for endoscopy, but it was difficult to plan forward when relying on paper requests and a paper diary system, which made auditing prohibitively labour-intensive. The department therefore designed an Electronic Referral System that included the ability to capture live demand.

Results

The system allows the department to react rapidly to trends in demand, and plan effectively. The service has moved from being reactive to proactive, and is able to model its demand and capacity well enough to be able to predict future trends. This has been particularly useful in balancing competing demands, such as NBCSP, routine appointments, surveillance, two-week wait, and training. It also allows the trust to forecast the impact of new guidelines, such as the BSG's updated polyp surveilliance guidelines.

Improving patient flow in the rest of the hospital: the impact of endoscopy list delays

Long endoscopy waiting lists also affect inpatients, both gastroenterology inpatients and – due to disruptions in patient flow – inpatients throughout the rest of the hospital.

This is a particular concern, as inpatients will often also be in more urgent need than outpatients and day cases, due to the conditions that caused them to be admitted to hospital in the first place. Endoscopy is also often essential to guide further treatment during an inpatient's stay.

In some trusts under pressure to reduce endoscopy waiting lists, staff find it difficult to leave slots on endoscopy lists available for inpatient endoscopies. Instead, they try to fit these endoscopies in either as an 'overbook', or where an outpatient does not turn up for their appointment. If there are delays in delivering timely inpatient endoscopies, these inpatients tend to stay in hospital for longer. This can lead to poorer outcomes for these patients and causes a knock-on effect to the rest of the hospital, leaving fewer beds available for acute admissions.

Conversely, when endoscopy units leave dedicated slots open for inpatient endoscopies, but there are very few or no inpatient referrals, this leads to wasted endoscopy capacity.

The vast majority of trusts do have a 24-hour on-call gastrointestinal (GI) bleed endoscopy service. However, in our research, we found that 6.7% of trusts who responded to our question do not have an out-of-hours endoscopy service for GI bleeds. This may mean that inpatients or patients admitted acutely out of hours with GI bleeds may not receive endoscopy treatment in a timely way. Also only around half (51.7%) of trusts had an out-of-hours interventional radiology on-call rota. These factors mean it is even more important for these trusts to ensure timely endoscopy and interventional radiology procedures for inpatients during the working day.

Trusts need to audit their inpatient endoscopy demand to work out the capacity they need to have available, and what kind of hybrid model would best meet this demand. They will need to review endoscopists' job plans and ensure they have sufficient availability of therapeutic endoscopists for timely urgent inpatient procedures.

Trusts should also ensure that senior clinical decision makers triage inpatient endoscopy to ensure the correct pathways are used. When considering whether to carry out inpatient endoscopy on lower GI bleeds, clinicians should also be aware of the BSG's *Guidelines to help clinicians with diagnosis and management of acute lower gastrointestinal bleeding*[56].

We explored different models of delivering inpatient endoscopy on our deep-dive visits. Some trusts use separate emergency and elective lists to manage demand – for example keeping dedicated endoscopy slots free for a daily emergency 'hot' list or 'duty list' (vs a 'cold' elective list), which can be used to manage inpatients who need an urgent endoscopy. The exact model will need to be flexible according to trust size and the mix of demand. For example, a smaller trust with only a few endoscopy rooms will not have capacity for a whole emergency list, but for larger trusts this can be an efficient way to manage demand for both outpatients and inpatients. Trusts that use weekend services in endoscopy are also likely to reduce inpatient length of stay for patients who need endoscopy.

An independent review of diagnostic services chaired by Professor Sir Mike Richards explored the use of 'cold' elective sites for endoscopy, as part of diagnostic hubs. See *Diagnostic hubs* on page 142 for more about this.

[56] *Oakland, K., Chadwick, G., East, J. et al (2019) Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology https://gut.bmj.com/content/gutjnl/68/5/776.full.pdf*

CASE STUDY

Improving inpatient access while avoiding unnecessary procedures

Mid Cheshire Hospitals NHS Foundation Trust

Pre-assessment of inpatients referred for endoscopy has reduced clinically unnecessary procedures, while dedicated time slots mean inpatients who do need an endoscopy are seen faster.

Some inpatients may need an unplanned endoscopy, for example if a GI bleed is suspected. Previously, slots for these internal referrals were allocated ad hoc depending on availability. If there were no gaps or cancellations on already full endoscopy lists, the patient might have to wait, sometimes resulting in longer lengths of stay. There was no out-of-hours GI bleed service, which added to potential delays. These issues made it difficult to comply with NICE guidance on urgent endoscopy for acute upper GI bleeding.

In the new system, all inpatient endoscopy referrals come through the co-ordinator. Dedicated slots are allocated for inpatients daily. Experienced nurses visit each patient to assess whether the endoscopy is necessary and if they are fit to have the procedure. Patients who do not need an endoscopy are identified, while those who do need the procedure have faster access to the service. Special arrangements have been made with University Hospitals of North Midlands to offer an out-of-hours service for urgent cases.

Results

In 2019, out of 906 inpatient endoscopy referrals assessed, 379 were found not to need an endoscopy, saving more than £75,000 on unnecessary procedures. Patients who need an endoscopy receive timely treatment and discharge, helping reduce length of stay and free up hospital beds. Patients are also better informed about their procedure, as nurses have time to explain risks and benefits during assessment visits. By meeting the NICE guidance, Mid Cheshire has also retained its JAG accreditation for GI endoscopy.

Recommendations: endoscopy in general

Recommendation	Actions	Owners	Timescale
6. Review and expand endoscopy capacity by revisiting working models, waiting lists and departmental resources.	**a** Monitor inpatient endoscopy demand, and explore using different models to manage demand, such as emergency and elective lists.	Trusts	Within 6 months of publication
	b Liaise with NHS England and NHS Improvement to review options, including possible financial incentives, to support trusts to expand their physical endoscopy capacity (that is: endoscopy rooms, recovery areas or other necessary space) to meet growing pressure on services.	GIRFT, NHS England and NHS Improvement	Within 18 months of publication

Gastroscopy

Increasing use of pre-investigation testing for Helicobacter pylori

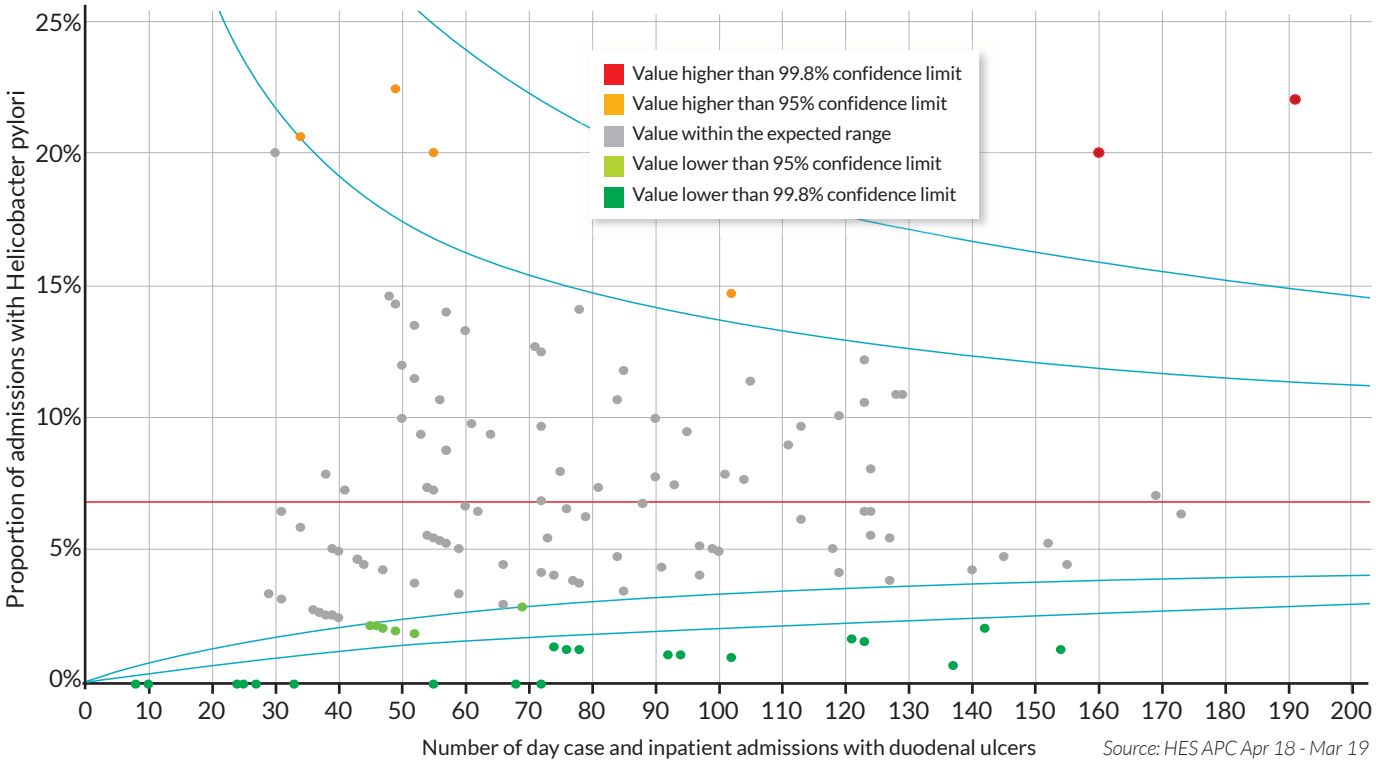
We found variation in the proportion of duodenal ulcer patients who had H. pylori infection – from 0% up to over 20%, as shown in **Figure 10** below. This may suggest variation in testing for and treating H. pylori infection across the country – even though this is recommended in NICE guidance.

H. pylori infection can make it more likely for a patient to develop gastritis, duodenitis, a peptic ulcer or recurrent ulcers, which can result in repeated admissions – yet the infection can often be eradicated with a combination of antibiotics and anti-acid medication (for example a Proton Pump Inhibitor or PPI). If H. pylori is tested for and (if positive) treated, ideally by the patient's GP, then the symptoms may resolve and the patient may not need a gastroscopy or further treatment. It is therefore essential that H. pylori is tested for, and if present eradicated, in all patients with symptoms of a duodenal ulcer and without any cancer red flags.

H. pylori tests are simple and fast – in many trusts rapid urease H. pylori tests are available for use during endoscopy, which produce a result within minutes. If endoscopists use the rapid urease tests, they can add this result to the endoscopy report and advise on the need for treatment, which GPs can manage. Even if H. pylori is not present, checking for this will have helped to inform treatment options and the possible need for further investigation.

If trusts can ensure that H. pylori is tested for and treated appropriately by GPs before referral from primary care, this should reduce the number of patients experiencing symptoms that require a gastroenterology referral, gastroscopy procedure or admission in the first place. Treating H. pylori should reduce the risk of recurrent gastrointestinal symptoms, ulcers, gastrointestinal bleeds and gastric cancer.

Figure 10: Proportion of duodenal ulcer admissions (day case and inpatient) with Helicobacter pylori



Source: HES APC Apr 18 - Mar 19

CASE STUDY

Improving screening for H. pylori during endoscopy

Guy's and St Thomas' NHS Foundation Trust

Point of care screening for H. pylori during endoscopy has improved early diagnosis and reduced the cost of lab tests.

Guy's and St Thomas' had seen a high rate of admissions for duodenal ulcers caused by H. pylori, which carry the risk of upper intestinal bleeding and prolonged hospitalisation. They wanted a way to proactively check for the infection.

All patients presenting with abdominal pain and requiring endoscopy are tested at the same time as the patient's endoscopy, adding just two minutes to the procedure, which takes a simple biopsy from the stomach. Results can be read before the patient leaves the procedure room.

Results

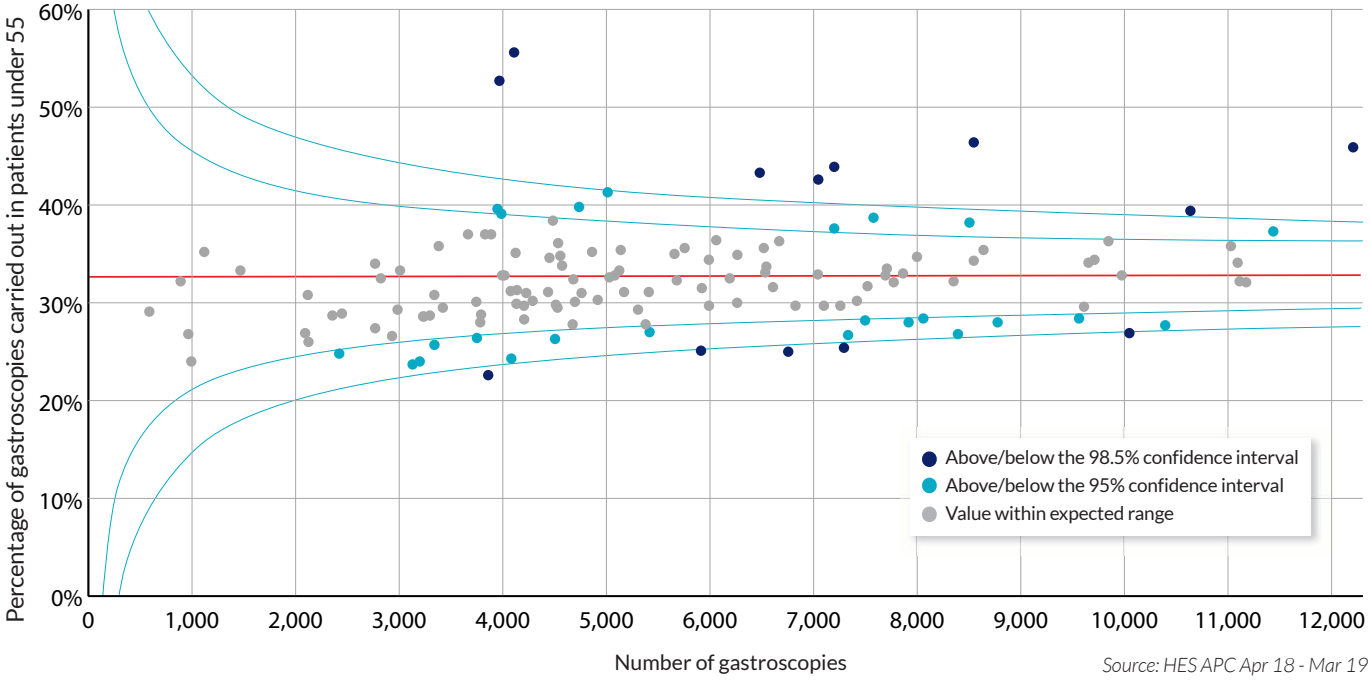
Rapid screening during endoscopy has improved H. pylori detection rates and reduced the need for hospital admissions, as patients who test positive can receive H. pylori eradication therapy to clear this infection. The point of care testing kit also saves time and money by reducing the number of samples sent to the histopathology laboratory.

Lowering use of gastroscopy

In the past, gastroscopies were frequently necessary to diagnose ulcers; ulcers were also harder to treat, leading to more cases of stomach cancer. However, since the roles of H. pylori and of non-steroidal anti-inflammatory drugs (NSAIDs) in the development of ulcers has been understood, H. pylori testing has meant that ulcers are both easier to diagnose and to treat. As a result, rates of gastric cancer have dropped significantly. In 2018, there were around 650,000 gastroscopies performed in England, but there were only around 5,000 cases of gastric cancer. Trusts may therefore need to review their gastroscopy usage. This may also free up capacity, for example to screen for oesophageal varices (see *Improving screening: preventing bleeds from varices* on page 83) or to do other types of endoscopy (for example colonoscopy).

This is especially important in gastroscopies in patients under 55 years of age, where gastric cancer is less likely. We found variation in the proportion of gastroscopies being performed on patients under 55. **Figure 11** below shows that in some trusts, over 40% of the gastroscopies performed were in patients under 55 years of age. Even more patients under 55 may have been referred for these procedures, but then been appropriately vetted and declined if they did not meet NICE guidance.

Figure 11: Proportion of gastroscopies carried out in patients under 55



Source: HES APC Apr 18 - Mar 19

NICE guidance suggests that where a patient is under 55 and has no 'red flags' for cancer (such as trouble swallowing), GPs should try other solutions before referring the patient for a gastroscopy. According to NICE guidance, before a gastroscopy is considered, patients should be tested and (where positive) treated for H. pylori (see above), have a trial of treatment for reflux, and be given lifestyle advice to see if their symptoms resolve.

This is particularly important as NICE guidance[57] has changed over time, which will have resulted in more referrals for urgent direct access endoscopy to take place within two weeks. Clinicians should note that NICE guidance for gastroscopy spans:

- *NICE clinical guideline CG184 Gastro-oesophageal reflux disease and dyspepsia in adults*[58];
- *NICE guideline NG12: Suspected cancer: recognition and referral guidelines*[59];
- *NICE quality standard 96: Dyspepsia and gastro oesophageal reflux disease in adults*[60].

This change in the referral guidelines will already have increased the demand for gastroscopy for these patients, making it even more important that gastroscopy capacity is prioritised for those who need it, and that inappropriate gastroscopies are not performed.

Trusts should work with GP colleagues to clarify referral pathways, to ensure that GPs and other referrers do not order gastroscopies for younger patients who do not have alarm symptoms, without these initial tests and actions. The Advice and Guidance service may also be useful in helping GPs to make referral decisions. Also, if reflux treatment succeeds, GPs should explain longer-term treatment options for reflux disease to patients, so that they better understand their condition.

For patients under 55, the likelihood of cancer is low, and the treatment of most common conditions in this age group may be the same regardless of whether the patient has had a gastroscopy. For example, if they have gastritis, they may be given lifestyle advice and Proton Pump Inhibitor medication to manage this, whether they have had a gastroscopy or not. GPs need to discuss the likely outcome of the procedure with patients before referral, and manage their expectations of the value of further interventions. This is in line with *NICE Clinical Guideline CG138 on shared decision making*[61].

Considering alternative methods for gastroscopy

Some patients may have difficulty tolerating a 'regular' gastroscopy, and currently may be rebooked for a gastroscopy under deeper (unconscious) sedation, or even under general anaesthetic. Instead of this, some patients may benefit from transnasal endoscopy (TNE), where a smaller camera is passed through the nose instead of through the mouth, bypassing the gag reflex. Trusts should consider this where possible, potentially using a regional centre to provide the service if it is not available on site.

This may also improve capacity (as more people may complete the test first time), and is also an example of considering alternative pathways for patients, as recommended in *Increasing collaboration with providers and patients, and providing alternative pathways* on page 54.

[57] *www.nice.org.uk/guidance/qs96/chapter/Quality-statement-2-Urgent-endoscopy*
[58] *www.nice.org.uk/guidance/CG184*
[59] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*
[60] *www.nice.org.uk/guidance/qs96*
[61] *www.nice.org.uk/guidance/cg138*

Recommendations: gastroscopy

Recommendation	Actions	Owners	Timescale
7. Improve testing for and treatment of H. pylori.	**a** Ensure that H. pylori is tested for where patients have dyspepsia or upper gastrointestinal symptoms, but no cancer 'red flags' or other appropriate indications requiring gastroscopy.	Primary care providers, trusts	On publication
	b Ensure that where H. pylori is present, it is treated to eradicate it, and referral only made where symptoms persist.	Primary care providers, trusts	On publication
	c Ensure endoscopists check for H. pylori infection (using the rapid urease test where available), as appropriate during gastroscopy.	Trusts	On publication
	d Ensure H. pylori results are accurately recorded and coded.	Trusts	On publication
8. Review usage of gastroscopy, particularly in younger patients (under 55s).	**a** Consider reviewing evidence and referral criteria for use of gastroscopies more generally in line with NHS evidence-based interventions programme and existing NICE guidelines.	NHS England and NHS Improvement, GIRFT, BSG, NICE	Initial discussions to take place within 12 months of publication
	b Vet all referrals using *NICE guideline NG12 on cancer referrals*[62] to ensure patients meet the criteria required.	Primary care providers, trusts	On publication
	c Alternatively, where direct-to-test pathways are used and not vetted, make the indications for gastroscopy very clear in line with *NICE guideline NG12 on cancer referrals*,[63] to stop inappropriate referrals.	Primary care providers, trusts	On publication
	d Work with primary care colleagues to manage patients' expectations of the value of gastroscopy and improve shared decision making in line with *NICE Clinical Guideline CG138 on patient experience*[64].	Trusts	On publication
	e Consider use of transnasal gastroscopy for patients who might benefit from this, rather than rebooking for a procedure under unconscious sedation or general anaesthetic.	Trusts	On publication

[62] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*

[63] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*

[64] *www.nice.org.uk/guidance/cg138*

Colonoscopy

Managing access to colonoscopy

At the moment, if a patient's symptoms are 'red flags' indicating a possibility of bowel cancer, they are referred on a two-week wait pathway regardless of their age. However, in April 2020, the Association of Coloproctology of Great Britain and Ireland stated that only 3 to 4% of patients going through the colorectal rapid access (two-week) pathway receive a colorectal cancer diagnosis[65]. This means the pathway is really designed as a high-volume, but low-yield service.

For example, somebody aged 40 with rectal bleeding and changes in bowel habit could be referred on the two-week wait pathway, even though at this age their symptoms are more likely to be due to haemorrhoids or other benign changes.

It may be that in some cases GPs are using the two-week wait pathway to speed up referral, if they know that waiting times for routine cases are long. Trusts need to work out whether this is the case and work with GPs to ensure the two-week wait pathway is used in line with NICE guidance, including checking that they are using stool tests appropriately to identify higher-risk patients.

In our research, we also looked at whether trusts were vetting surveillance colonoscopy referrals, and found that only 83.3% of trusts who answered this question were vetting all of these referrals, and 80.5% of trusts were cancelling fewer than 20% of their procedures due to vetting (these figures are self-reported and an indication only). This may be because before the *BSG post-polypectomy and post-colorectal cancer surveillance guidelines*[66] were published in 2019, the majority of cases would still meet the criteria for surveillance and so some trusts may have felt the vetting was not worthwhile. However, now these new surveillance guidelines are being implemented by trusts, we expect the number of patients no longer requiring surveillance to significantly increase. This means vetting all colonoscopy surveillance referrals is even more important, as shown in our case study. To avoid unnecessary repeat tests, access to information about previous procedures should ideally be easily available locally and nationally.

Trusts need to manage access carefully to ensure that colonoscopy time is used effectively. This will include ensuring that patients are appropriately pre-investigated, and referrals vetted. Implementing a Clinical Assessment Service, as described on page 49, will also help with this process.

Targeting colonoscopy referrals

We found there was variation in conversion rates – the proportion of patients diagnosed with bowel cancer during colonoscopy.

Ideally, colonoscopies should remove polyps where appropriate – helping to prevent bowel cancer from forming – or identify cancer at an early stage, rather than waiting for a patient to present with active symptoms. This is what the National Bowel Cancer Screening Programme (NBCSP) is designed to achieve.

If a trust has a very low conversion rate – fewer patients diagnosed with bowel cancer per 1,000 colonoscopies performed – this may be because they are performing a high volume of unnecessary colonoscopies – for example on patients with Irritable Bowel Syndrome. However, if a trust has a very high conversion rate, this may mean they are not performing enough colonoscopies, due to capacity issues. As the NBCSP takes effect, trusts should see conversion rates decreasing over time as polyps are identified and removed earlier, before becoming cancerous, so the incidence of bowel cancer in the population reduces.

Due to the complexity of these scenarios, conversion rates can be hard to interpret. For example a trust that undertakes a high volume of NBCSP work can expect to see a higher conversion rate, as NBCSP patients who have already received a positive FOB or FIT test will have a higher incidence of bowel cancer compared to standard two-week wait or symptomatic referrals.

Trusts therefore need to interrogate their conversion rates in the context of the nature of their practice to determine whether there are any underlying factors skewing their rates.

[65] *Nicola Fearnhead, Robert Steele, James Hill et al. Joint ACPGBI, BSG and BSGAR considerations for adapting the rapid access colorectal cancer pathway during COVID-19 pandemic www.acpgbi.org.uk/content/uploads/2020/04/Joint-ACPGBI-BSG-BSGAR-considerations-on-colorectal-cancer-pathway-in-COVID-19-FINAL-9-4-20.pdf*

[66] *Rutter, M. (2019) Post-polypectomy and post-colorectal cancer resection surveillance guidelines. British Society of Gastroenterology, Association of Coloproctology of Great Britain and Ireland and Public Health England. www.bsg.org.uk/resource/bsg-acpgbi-phe-post-polypectomy-and-post-colorectal-cancer-resection-surveillance-guidelines.html*

Our deep-dive visits suggested that trusts may need to look at the following issues as context for understanding their conversion rates:

- their NBCSP workload;
- which pre-testing methods they are using for symptomatic patients (including remote pre-assessment where appropriate);
- FIT testing for symptomatic patients with bowel symptoms that may help to identify patients with an increased risk of a significant polyp or bowel cancer;
- faecal calprotectin stool tests for patients with possible Inflammatory Bowel Disease symptoms, that can help to identify where a patient may actually have Irritable Bowel Syndrome (IBS) rather than Inflammatory Bowel Disease (IBD), and so may not need a colonoscopy;
- whether there is enough capacity to provide necessary colonoscopies;
- whether CT Virtual Colonoscopy (CTVC) is available as needed (see below for more on CTVC).

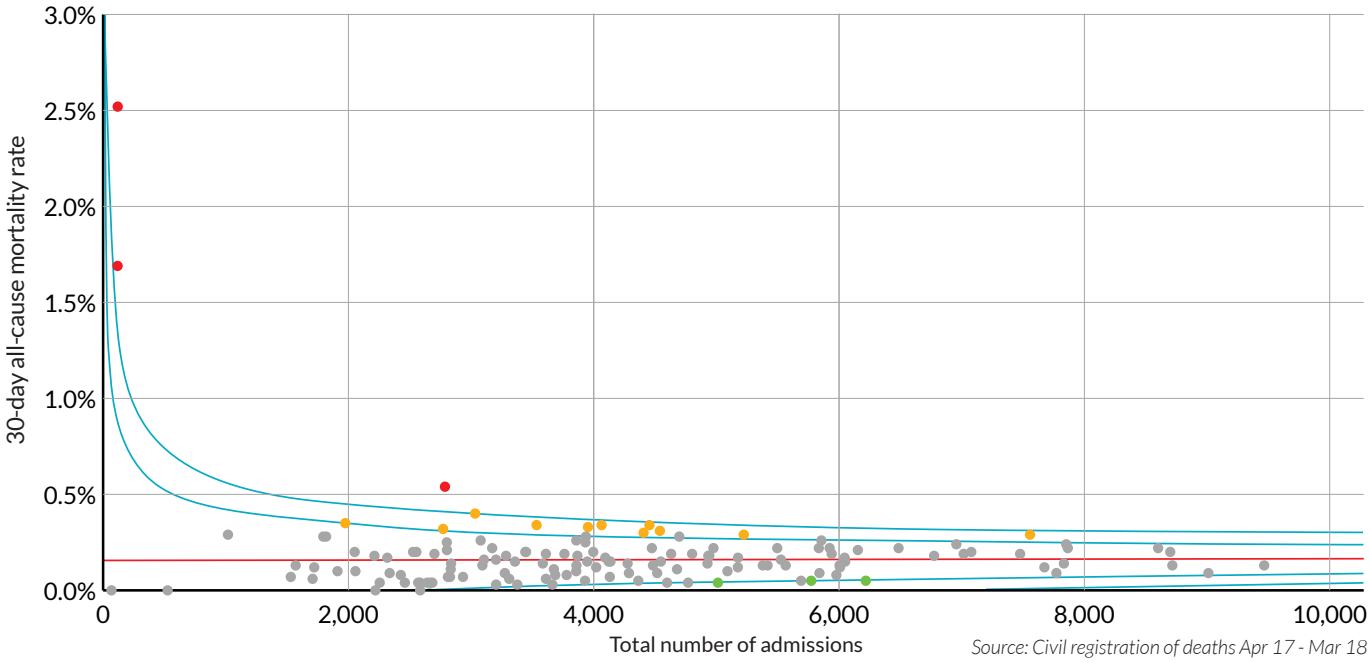
Trusts need then to consider how they vet colonoscopy referrals, and whether patients are being pre-assessed appropriately, including the use of stool tests to identify higher-risk patients. The COVID-19 response has increased the importance of pre-assessment, as discussed in *Gastroenterology in the context of COVID-19* on page 125.

Assessing whether a colonoscopy is appropriate

We found variation in the 30-day mortality rate for patients who had had a colonoscopy. As **Figure 12** shows, this varied from 0% to 2.52%. However, the two providers with the highest mortality rates of 2.52% and 1.69% had recorded almost all of their elective colonoscopy procedures as outpatient attendances, not as day case admissions – this highlights some of the issues we encountered with coding variations in HES. This resulted in their mortality data for colonoscopy admissions being calculated on just 2.3% and 4.0% of their total colonoscopy procedures respectively. These are likely to be inpatient colonoscopies, rather than day case procedures, and therefore this does highlight that inpatient colonoscopies are often performed on higher-risk patients or are higher-risk procedures. These two mortality results should therefore be disregarded. The highest mortality rate disregarding these two providers was 0.54%.

We also found variation in the number of patients aged over 80 undergoing colonoscopy, as shown in **Figure 13**, and the number of inpatient colonoscopies that were performed. The average inpatient colonoscopy rate was 3.58%, but ranged from 0.72% to 11.55%.

Figure 12: Trusts' 30-day all-cause mortality for colonoscopy admissions



Source: Civil registration of deaths Apr 17 - Mar 18

Trusts may need to look at whether they are appropriately vetting and pre-assessing colonoscopy referrals, to defer or divert any that are not suitable for colonoscopy. For example, with more frail patients they may want to consider replacing colonoscopy with CTVC or CT (see next section), or to discuss a more conservative approach with these patients.

Patients undergoing a colonoscopy need to prepare their bowels beforehand by taking a high-strength laxative. If they don't take the laxative correctly, or if they are too unwell to do this, the colonoscopy may be incomplete and need to be repeated. This results in additional stress and discomfort for the patient, as well as wasted clinical time.

For outpatients, it is more comfortable for patients (and often more effective) if they carry out bowel preparation before the procedure in their own home. Older, frailer patients can find this more difficult and some clinicians advise admitting these patients for bowel preparation. However, if patients need to be admitted to prepare for a colonoscopy, it is likely to be the wrong test for them.

Bowel preparation is often particularly difficult for inpatients. This is because:

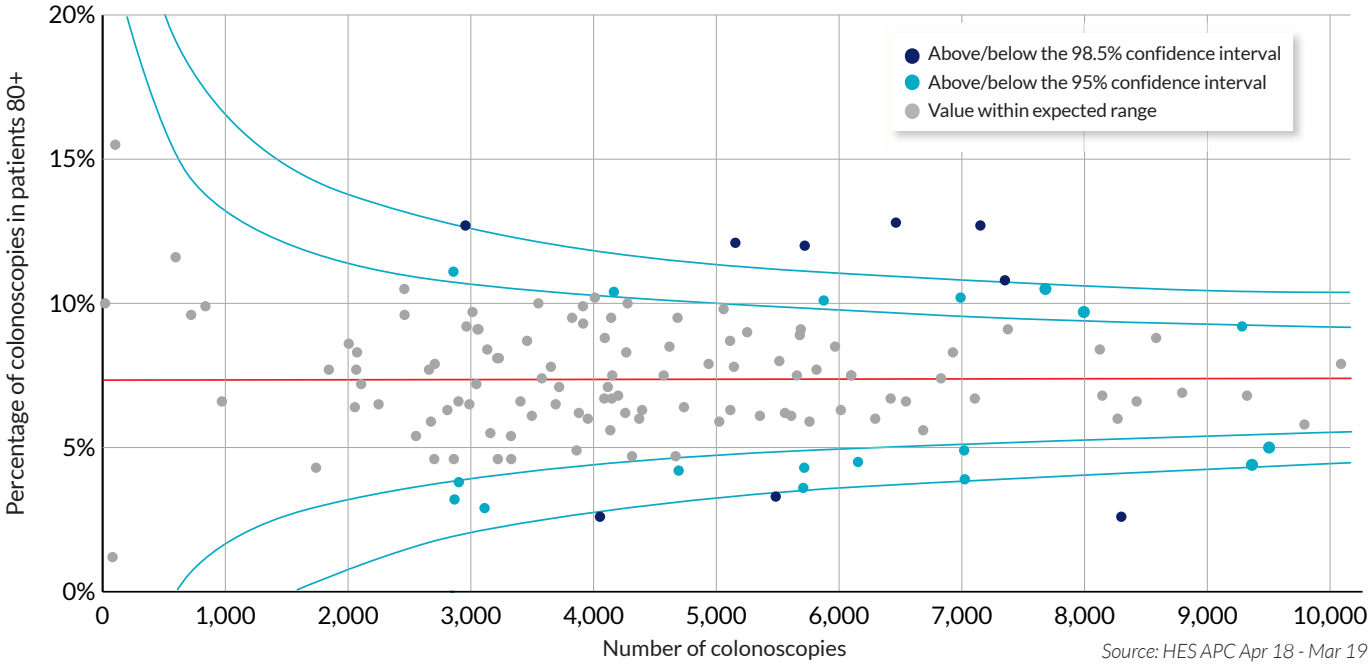
- inpatients tend to be more unwell to begin with (which is why they are in hospital);
- inpatients are more likely to become constipated, due to reduced mobility, which makes the bowel preparation less effective;
- it can be difficult to ensure inpatients take their laxative preparation on the ward at the appropriate times before their colonoscopy procedure, as ward nursing staff are often extremely busy, and drug rounds may be significantly delayed;
- inpatients find the effects of bowel preparation embarrassing when having to use shared toilet facilities on a ward.

As **Figure 13** below shows, some trusts were performing over 12% of colonoscopies on patients aged 80 or over, while for others this figure was only 3%. Trusts need to review how well or frail a patient is, and whether they are an inpatient or an outpatient, before deciding whether a colonoscopy is appropriate, and when it should be performed if it is appropriate. For example:

- If a patient is unwell, it may be better to defer investigation until they improve.
- If a patient is frail and unlikely ever to be well enough for colonoscopy, then CTVC or plain CT may be a better option if investigation is needed (see the next section).
- Patients should not be admitted as inpatients purely for colonoscopy preparation. If they are too unwell to carry out bowel preparation at home, then CTVC or plain CT may be more appropriate.
- If patients are particularly frail, with high comorbidities and more limited life expectancy, then it may be more appropriate to discuss conservative or symptomatic management instead.

In emergencies, an inpatient colonoscopy may still need to be considered – for example to stop a gastrointestinal bleed. However, inpatient colonoscopy should be kept to a minimum.

Figure 13: Proportion of colonoscopies performed on patients aged 80 or over



Source: HES APC Apr 18 - Mar 19

CASE STUDY

Vetting colonoscopy for inpatients

The Royal Wolverhampton NHS Trust

The trust recognised that inpatient colonoscopy is often a poor experience for patients, because of shared ward bay accommodation and delays in administering inpatient bowel preparation, leading to higher rates of abandoned procedures. In view of this, they decided to limit access for requesting inpatient colonoscopy to endoscopists, and to ensure ward referrals for patients who may need colonic investigations were vetted by consultant endoscopists.

Where appropriate:

- Inpatients were discharged (when well enough, which meant they would be better able to tolerate a colonoscopy).
- The patients were then invited to nurse-led endoscopy pre-assessment clinics. These established that the patients were well enough for the procedure, and willing to have it. The nurses were able to advise on changes to medication and diet, and send patients home with clear instructions on bowel preparation. This ensured patients were well informed, well prepared and fully consented.

Inpatient colonoscopy was reserved for essential or emergency procedures, using a dedicated inpatient list. The department adopted a multidisciplinary approach to these cases, ensuring the procedure happened in a timely way and pre-procedural checks were carried out, working closely with ward staff.

Results

The trust has a very low mortality rate for colonoscopy, despite being a tertiary referral service for high-risk therapeutic colonic procedures. They always aim to learn from any complications, or near-misses, by exploring learning points related to the procedure, planning and subsequent management.

After implementing the new vetting procedures, inpatient colonoscopy rates fell (and are less than 1%), and the number of failed, cancelled, inappropriate or abandoned procedures also fell.

Improving triage for CT and CTVC vs colonoscopy

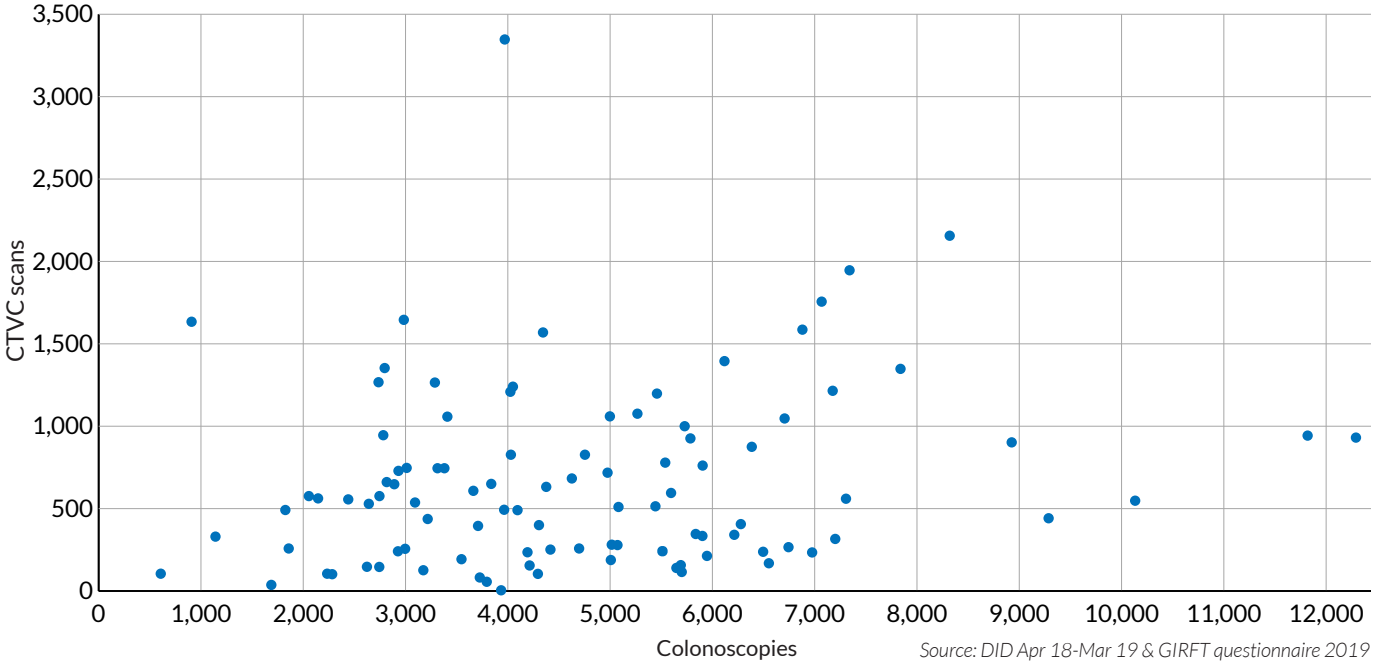
CTVC is a non-invasive alternative to colonoscopy that uses a CT scanner to X-ray the large bowel. It may be a better option than colonoscopy for some patients, depending on their general health. As part of personalising care to patient needs, this should be discussed as an option with patients where it may be an appropriate pathway. During our visits we found that use of CTVC varies, and some trusts had more limited access to this.

Conventional CT, which uses less resource than CTVC, may also be an option for some patients and for trusts where access to CTVC is limited. Particularly frail patients may not be able to tolerate CTVC procedures, and in some cases the best course of action may be to avoid further investigation completely, as part of personalised care planning.

Trusts that assess whether the patient is suitable for a procedure when reviewing two-week wait referrals – for example by using the patient's 'performance status' as a measure of wellness, other health conditions, and the patient's level of frailty – are better able to triage patients appropriately between colonoscopy, CTVC, CT and clinic. A CAS helps with this process (see *Improving triage by using a Clinical Assessment Service* on page 49). However, we found variation between trusts in the number of CTVC procedures being carried out, compared to colonoscopy. **Figure 14** below shows that some trusts are performing over 10,000 colonoscopies in comparison to 1,000 or fewer CTVC scans. All but one trust had more colonoscopies than CTVC procedures.

If use of CT and CTVC increases, this will need be carefully planned and managed with imaging services. However, our other recommendations on ensuring that patients are supported with bowel preparation for colonoscopy (see *Ensuring patients do not need to be turned away from endoscopy appointments* on page 46) may help to balance out demand, as patients are sometimes re-referred for CTVC if a colonoscopy fails and this should reduce.

Figure 14: Number of colonoscopies performed compared to CTVC scans



Source: DID Apr 18-Mar 19 & GIRFT questionnaire 2019

Note to graph: there are some outliers on this graph that may be due to inconsistencies in recording.

Patients who are frail or have other significant comorbidities can be triaged directly to CTVC or CT for pre-investigation, or to go direct to clinic if this is more appropriate. Other, fitter patients may be referred direct to colonoscopy. To achieve this, trusts may need to work with their radiology department to improve access to CTVC and CT, bearing in mind the capacity challenges currently facing imaging and endoscopy services.

Investigating why bowel cancer has been diagnosed following an emergency admission

Wherever a patient has been diagnosed with bowel (colorectal) cancer as an emergency admission, trusts need to understand why this has happened, and address any identified problems in accessing screening programmes, surveillance or symptomatic services.

This is because bowel cancer is generally a slow-growing cancer. Warning symptoms or signs (such as passing blood, a change in bowel habit, or iron deficiency anaemia) may have been around for some time before a patient presents in an emergency admission. Therefore patients who are diagnosed during an emergency admission may have slipped through the net. They may now be at a later stage of disease, resulting in a poorer prognosis.

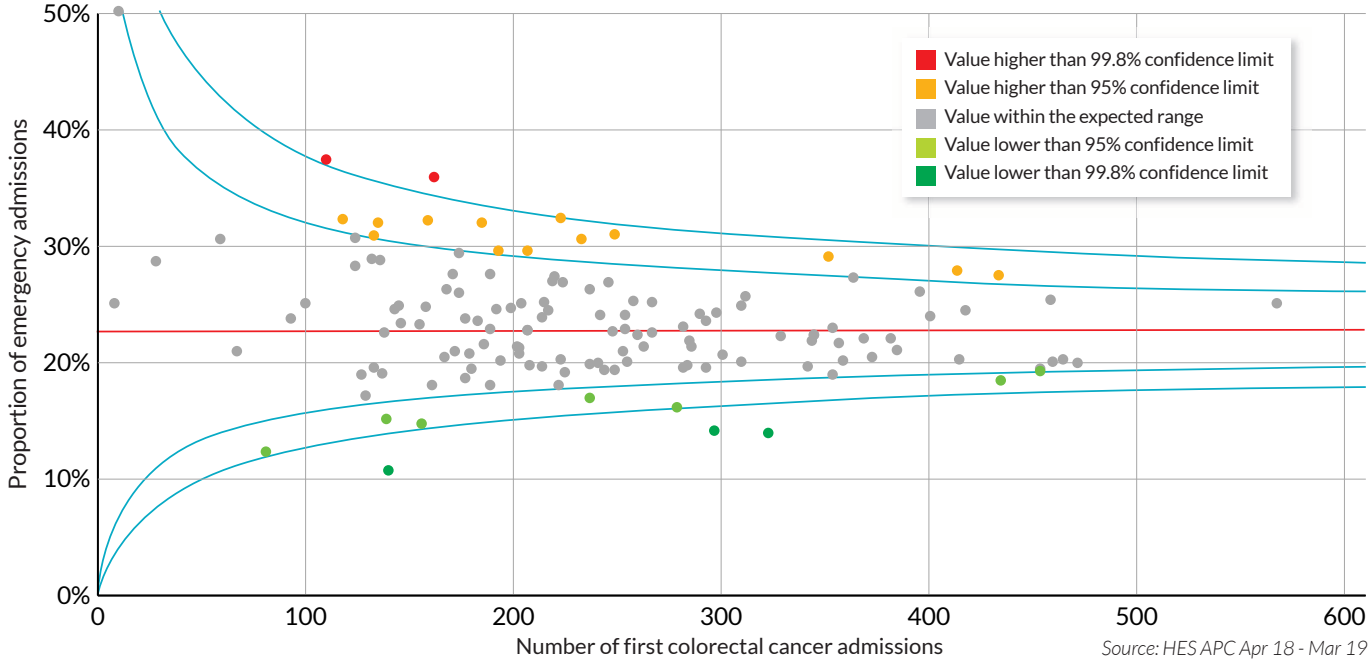
Possible causes include:

- the patient's own embarrassment or fear about seeking help;
- long waiting times for a referral or difficulties with the referral pathway;
- a polyp or cancer that was missed during a previous colonoscopy or CTVC.

Although not all of these are within the trust's control, trusts should conduct a Root Cause Analysis (RCA) to identify the cause in each case, and act on any issues to improve access to elective care to support earlier diagnosis for future patients.

Figure 15 below shows that, although most trusts fall within the expected range, in some, almost a third of patients diagnosed with colorectal cancer appear to have been diagnosed during an emergency admission.

Figure 15: Proportion of patients whose first admission with colorectal cancer was as an emergency

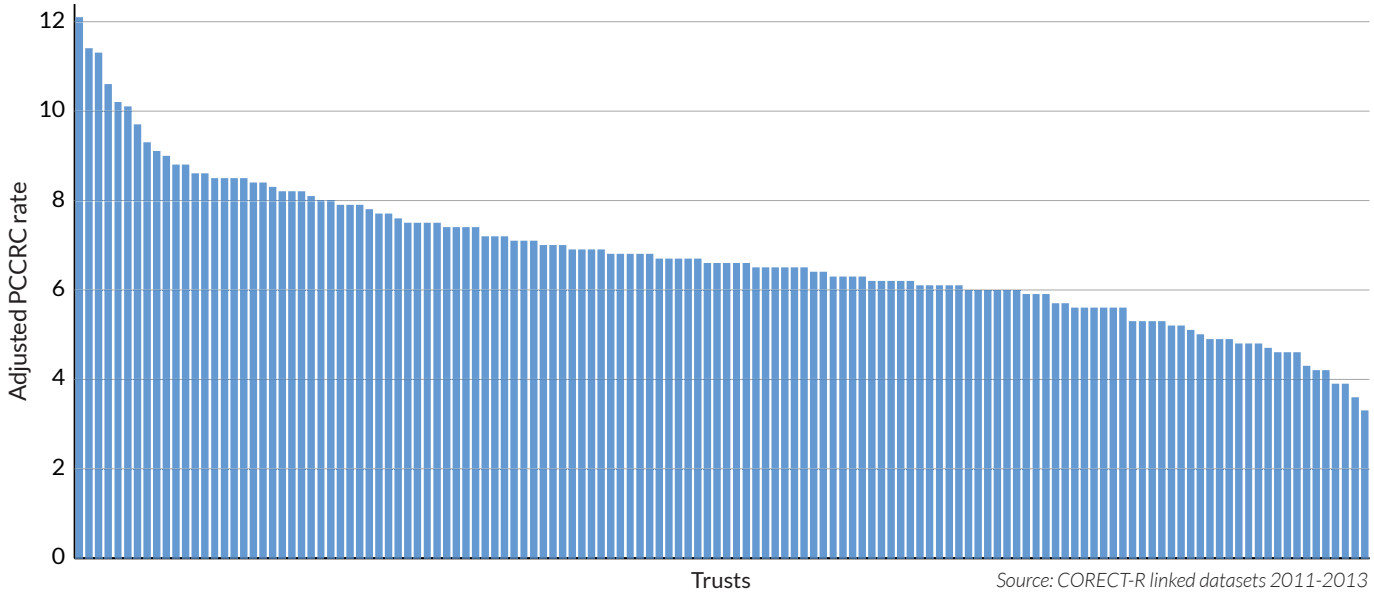


Source: HES APC Apr 18 - Mar 19

Reviewing Post-Colonoscopy Colorectal Cancer rates, and surveillance of high-risk patients

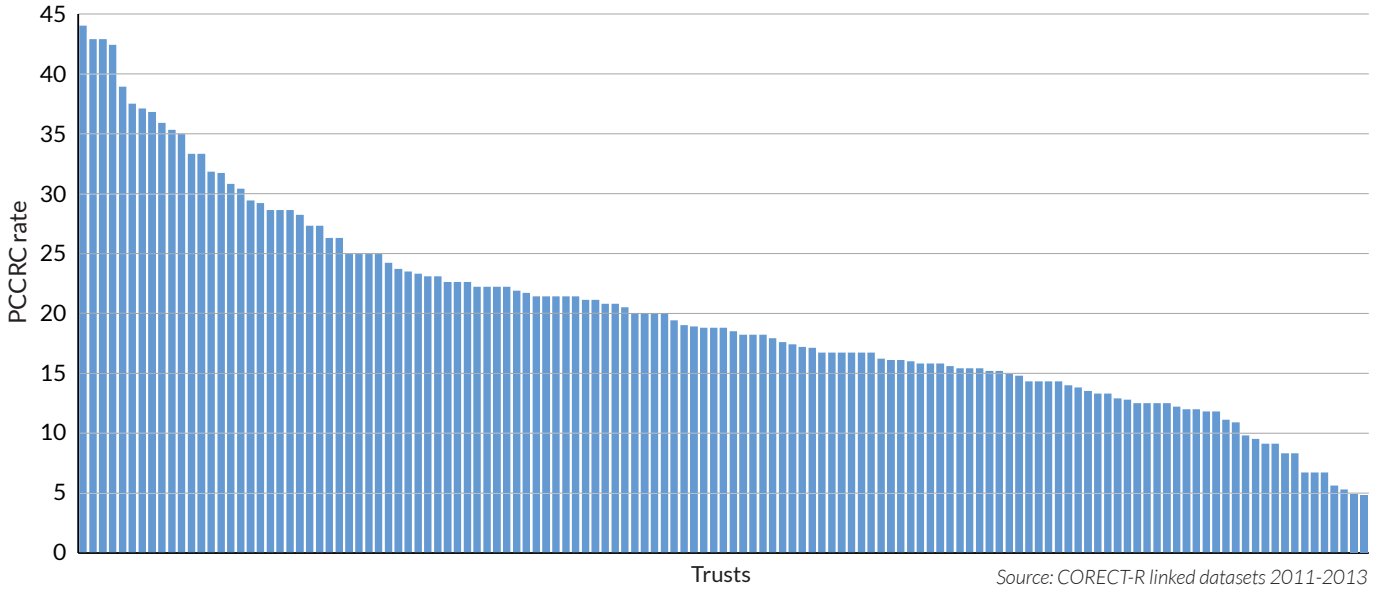
We found that rates of patients with Post-Colonoscopy Colorectal Cancer (PCCRC) varied, as shown in **Figure 16** and **Figure 17** below. PCCRC is defined as where a patient is diagnosed with bowel cancer more than six months but less than three years following a colonoscopy that had not shown bowel cancer. The PCCRC rates (adjusted for case mix) varied from 3.31% to 12.05%. The two charts show that the variation was much greater among patients with Inflammatory Bowel Disease (IBD).

Figure 16: Variation in Post-Colonoscopy Colorectal Cancer rates when adjusted for case mix



Source: CORECT-R linked datasets 2011-2013

Figure 17: Variation in Post-Colonoscopy Colorectal Cancer rates in patients with IBD (not adjusted for case mix)



Source: CORECT-R linked datasets 2011-2013

- The data in **Figure 16** has been adjusted to reflect case mix. This means the data has been adjusted to reflect the fact that patients with some risk factors are more likely to get colorectal cancer than others. These factors include age, sex, IBD, other illnesses, or whether they have had colorectal cancer previously. For example, if a trust has a large number of patients with IBD, their colorectal cancer rates will be higher, as patients with IBD are more likely to develop colorectal cancer than patients without IBD. Adjusting the data to take these factors into account creates a better comparison between trusts that is more effective at showing variation in care. **Figure 17** is not adjusted as it only shows patients with IBD.
- The numbers used to calculate the unadjusted rates in Figure 17 were very low. This means that any variation shown here may be due to chance. However, our clinical recommendations remain the same.
- We defined PCCRC as colorectal cancer diagnosed within three years of a colonoscopy using the World Endoscopy Organisation methodology[67]. In brief this is calculated as (false negative colonoscopies/(false negative colonoscopies + true positive colonoscopies)) X 100.
- We used the screening dataset, rather than HES, to calculate numbers of screening colonoscopies.
- The PCCRC data has been provided by CORECT-R. See Data sources on page 31 for more about this.

[67] *Rutter MD et al. (2018) The World Endoscopy Organisation consensus statements on post-colonoscopy and post-imaging colorectal cancer: recommendations on terminology, aetiology, categorisation, qualitative and quantitative review of cases.*

We recommend that trusts carry out Root Cause Analysis (RCA) or audit of all cases of PCCRC to determine the most likely explanation, and to identify themes to target quality improvement for their colonoscopy service. We appreciate that currently there is an interval of up to four years between the initial colonoscopy test and the cancer RCA or audit, and that during this time patients may move (making tracking harder) and trusts' systems and policies may already have changed. However, the RCA or audit will still help to identify modifiable factors that could be improved. There are plans to establish a national reporting system (with funding from Bowel Cancer UK), and we hope this will be rolled out from 2021, along with an online reporting system and proforma to support clinicians with carrying out an RCA or audit. As well as conducting the RCA or audit, trusts need to also collect and share data on PCCRC to help identify variation.

Trusts may be able to reduce their PCCRC rate by:

- Making sure bowel preparation for colonoscopy is optimised and carried out effectively.
- Repeating the colonoscopy with better bowel preparation, if this has been poor, to ensure significant lesions have not been missed. (This should be discussed carefully with the patient to ensure they are happy to go ahead, and that it is clinically necessary.)
- Creating dedicated dye-spray surveillance colonoscopy lists for patients with IBD, with longer time slots on the list, to allow careful assessment for pre-malignant changes (colonic dysplasia). In our research, we found that only 45.6% of the trusts that responded to our question currently run dedicated (segmented) dye-spray lists for IBD patients.
- Proactively managing IBD patients to ensure their disease is as well controlled as possible in the lead up to their surveillance colonoscopy, for example by checking faecal calprotectin and optimising treatment where needed.
- In line with *IBD Standards guidance*[68], ensuring that IBD patients are fully informed of the link between IBD and cancer, the importance of medication, and the need to keep up surveillance appointments. Patients should be encouraged to follow up if they do not receive a surveillance appointment for any reason, and trusts should also ensure they have mechanisms in place to follow up with patients who do not respond to surveillance appointments.
- Keeping a register of high-risk surveillance patients such as those with Lynch Syndrome, Primary Sclerosing Cholangitis, or who have had a previous high-risk polyp, to ensure their surveillance is not delayed. In our research, only 14.9% of the trusts that responded to our question were keeping a register of patients with Lynch Syndrome.
- Where possible, updating the high-risk register with advice from clinical genetics teams – for example, as more information comes to light about a family over time, their surveillance plan may change: they may no longer need surveillance or need more frequent surveillance. We saw this process being successfully used with the Cheshire and Merseyside Cancer Alliance Endoscopy Delivery Group.
- Appointing a surveillance lead, who will be responsible for maintaining and reviewing this list – and ensuring that patients are added or removed, as needed. This should happen at service level, and should form part of the allocated leadership PAs – see *Reviewing leadership and Programmed Activities for consultants and other staff* on page 37.
- Ensuring that endoscopists clearly inform patients about when their next surveillance colonoscopy should happen, so that patients know to follow up on this if necessary.
- Ensuring that patients are fully informed about the risk that their colonoscopy can sometimes still miss concerning changes, and that they know who to contact if they experience worrying symptoms before their next surveillance colonoscopy.
- Working with primary care colleagues to ensure *NICE guideline NG151 on colorectal cancer*[69] is followed, which includes recommendations for preventative measures in high-risk patients.
- Ensuring that there is a multidisciplinary team (MDT) in place for complex polyps. We found that only 57.8% of trusts currently have a polyp MDT in place, yet these can be very helpful in improving rates of complete polyp removal and also identifying areas for improvement.

[68] *https://ibduk.org/ibd-standards/ongoing-care-monitoring/ongoing-review*

[69] *www.nice.org.uk/guidance/ng151/chapter/Recommendations*

[70] *Rutter, M. (2019) Post-polypectomy and post-colorectal cancer resection surveillance guidelines. British Society of Gastroenterology, Association of Coloproctology of Great Britain and Ireland and Public Health England. www.bsg.org.uk/resource/bsg-acpgbi-phe-post-polypectomy-and-post-colorectal-cancer-resection-surveillance-guidelines.html*

Currently, when trusts are struggling to meet other endoscopy targets (such as two-week wait referrals or symptomatic patients), they may delay surveillance, including surveillance for high-risk patients. This can increase cases of PCCRC. We recommend that trusts vet their colonoscopy surveillance waiting list against the *BSG post-polypectomy and post-colorectal cancer surveillance guidelines*[70], published in 2019, as this may free up some colonoscopy capacity to reduce waiting times for higher-risk surveillance patients (such as those with Lynch Syndrome) and for symptomatic referrals. Trusts should appoint a surveillance lead to oversee this.

Under post-polypectomy and post-colorectal cancer surveillance guidelines, two main groups of patients may no longer need surveillance:

- Low-risk patients who previously had just one or two small polyps removed that were under 1cm. The likelihood of these patients getting bowel cancer may be similar to someone in the general population.
- Over 75s. If their bowel has been cleared of polyps, the risks of these patients having a colonoscopy may outweigh the benefit of finding a new polyp. This is because polyps are slow-growing, and a new polyp is unlikely to cause problems within their natural lifespan. In addition, the risk of a complication due to the test itself (such as bleeding) or an associated event (such as a stroke, heart or kidney problem) occurring after colonoscopy increases significantly in patients over the age of 75.

CASE STUDY

Reducing unnecessary polyp surveillance through case vetting

Wirral University Teaching Hospital NHS Foundation Trust

Robust vetting of referrals in line with BSG guidelines resulted in a reduction in unnecessary polyp surveillance, freeing up endoscopy capacity.

The new BSG guidelines advise that patients who have had just one polyp removed previously will not usually need ongoing surveillance, in the absence of other high-risk findings. Only those with two or more pre-malignant polyps, one of which is advanced, require surveillance.

Vetting takes place within six weeks of a surveillance colonoscopy booking being made, with between 70-100 referrals reviewed each month. The clinical lead for endoscopy takes responsibility for vetting decisions, adhering closely to the guidelines, supported by nurse colonoscopists. During COVID-19, the team also made use of downtime to vet cases much further ahead.

Results

Vetting colonoscopy surveillance cases against new BSG guidelines has reduced surveillance colonoscopy numbers by up to around 60 to 70%. This has released endoscopy capacity to be used for other appropriate cases, and will enable expansion of the trust's bowel cancer screening activity over time. The endoscopy team have also been able to reduce spend on agency staff, previously required to provide additional endoscopy capacity.

Recommendations: colonoscopy

Recommendation	Actions	Owners	Timescale
9. Improve pre-assessment and referral vetting for colonoscopies and increase access to CT Virtual Colonoscopy and CT where appropriate.	**a** Vet colonoscopy surveillance waiting list against the new *BSG post-polypectomy and post-colorectal cancer surveillance guidelines*[71] to free up some capacity for higher-risk surveillance patients and for symptomatic referrals.	Trusts	Ongoing
	b Vet colonoscopy referrals and interrogate whether patients are being appropriately pre-assessed (including remote pre-assessment where appropriate).	Trusts	On publication
	c Review whether GPs are referring using the two-week wait pathway inappropriately, and work collaboratively with Primary Care Networks to ensure that NICE referral guidelines are followed correctly.	Trusts, Primary Care Networks	Within 3 months of publication
	d Assess patients for wellness and frailty when deciding on the most suitable procedure, and discuss preferences with them, in order to tailor their care.	Trusts	Ongoing
	e Increase CT or CTVC capacity in co-ordination with radiology teams: any increase in demand will need to be adequately planned and resourced.	Trusts	Within 12 months of publication
10. Analyse emergency and Post-Colonoscopy Colorectal Cancer (PCCRC) occurrences of bowel cancer, keep a register of surveillance for high-risk patients, and remedy any identified issues to improve access to prompt diagnosis.	**a** Collect and analyse data on any new diagnoses of colorectal cancer as an emergency presentation, and conduct a Root Cause Analysis to identify themes to improve access to elective care to support earlier diagnosis.	Trusts	Within 18 months of publication
	b Perform an audit or Root Cause Analysis wherever a cancer may have been missed during colonoscopy, and use this to determine the most likely explanation, and to identify areas for improvement in the quality of colonoscopy services.	Trusts	Ongoing
	c Collect and share data to carry out a service-level review of rates of PCCRC, to identify ways to improve colonoscopy as a service.	Trusts	Within 18 months of publication
	d Avoid delaying surveillance for cancer in high-risk patients, such as those with Lynch Syndrome, for example by establishing high-risk patient registers where appropriate (as part of allocated leadership Programmed Activities (PAs)).	Trusts	Within 3 months of publication

[71] *www.bsg.org.uk/resource/bsg-acpgbi-phe-post-polypectomy-and-post-colorectal-cancer-resection-surveillance-guidelines.html*

4. Liver, pancreas and biliary system (hepatopancreatobiliary)

Diseases to do with the liver, pancreas and biliary system may be managed by a specific hepatology department (often in larger teaching hospitals), or by a general gastroenterology department. Hepatology conditions can be difficult to manage, but as the incidence of liver disease in particular continues to rise (as shown in **Figure 18** below, and explained in *Conditions to do with the liver: hepatology* on page 24), these conditions are likely to form an ever larger proportion of gastroenterologists' workload. To meet the likely increase in demand, trusts may need to:

- create more proactive services to manage patients at risk and identify liver disease earlier;
- plan staffing resources carefully to ensure they have the right professional skill mix;
- work closely with community resources to improve access to support close to home.

In this section we also look at the use of Endoscopic Retrograde Cholangio-Pancreatography (ERCP), a useful but high-risk endoscopic procedure used in conditions such as stone disease, biliary sepsis and biliary cancers, and set out recommendations for using it as safely as possible.

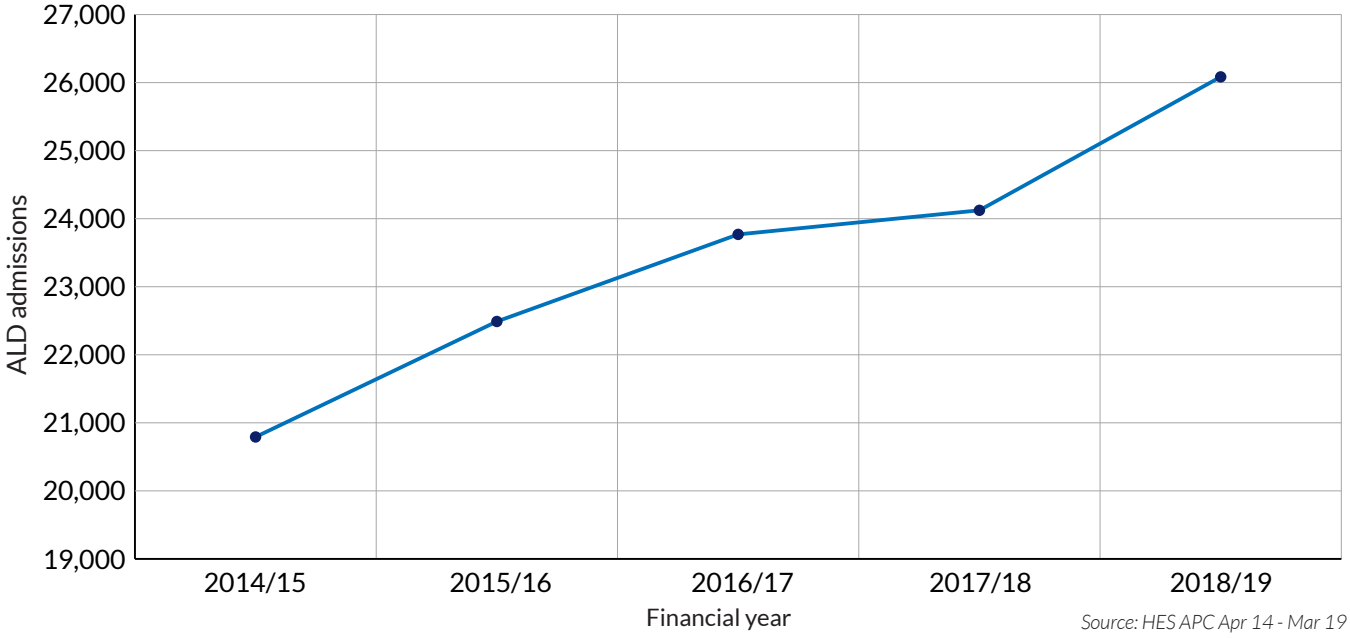
Liver disease

Managing liver disease proactively

Despite a continuing rise in deaths from liver disease, trusts do not always have proactive measures in place to manage these patients.

Liver disease is on the increase – including both Alcoholic Liver Disease (ALD) and Non-Alcoholic Fatty Liver Disease (NAFLD) – due to lifestyle changes among the general population. **Figure 18** below demonstrates the steep increase in Alcoholic Liver Disease admissions in England over the last five years, from 20,792 to 26,084.

Figure 18: Number of Alcoholic Liver Disease inpatient admissions over last five years



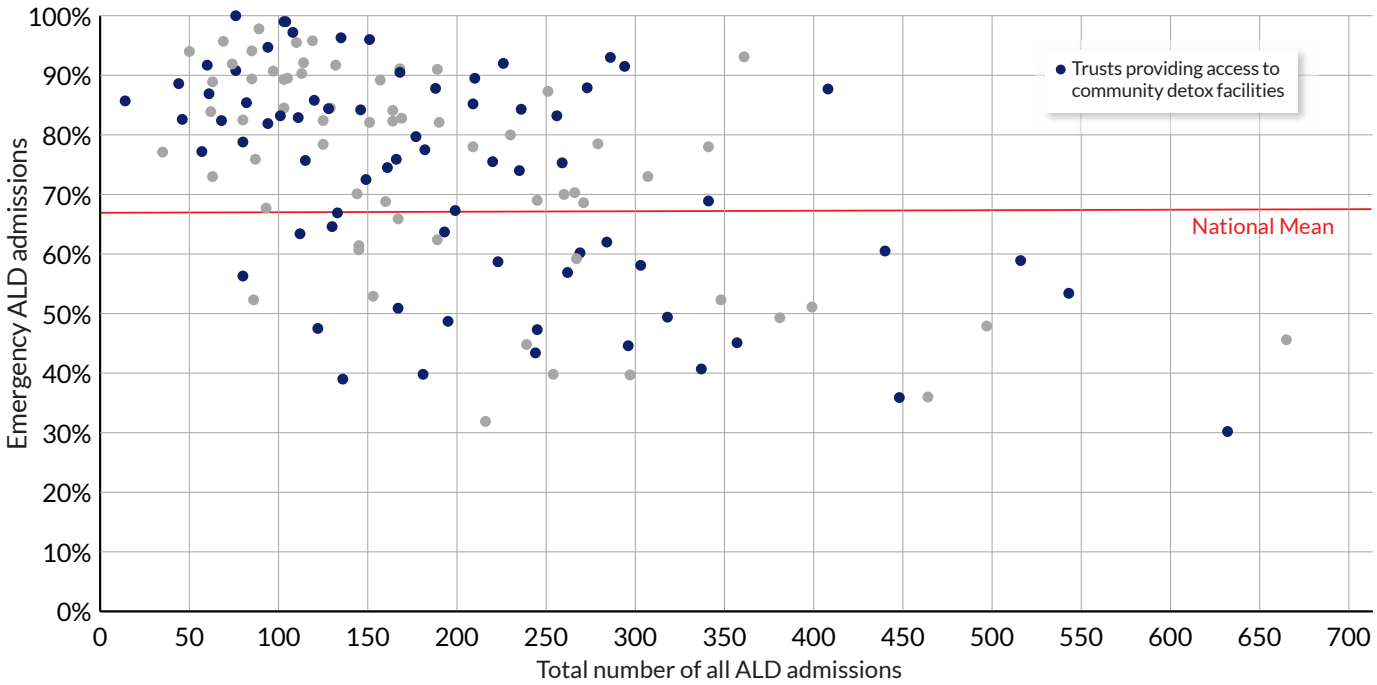
Source: HES APC Apr 14 - Mar 19

The mortality of liver disease has also increased significantly over the last few decades despite relative declines in deaths from other 'major killers' such as cancer or heart disease.

Liver disease has a very significant impact on patients, often leading to multiple hospital admissions, and sometimes long hospital stays. Sadly, a quarter of ALD patients die within 60 days after an emergency admission[72]. Effective proactive management of patients at risk (due to obesity or harmful alcohol use, for example), and of patients in the earlier stages of disease, can improve outcomes for patients, reduce emergency admissions, and lower costs for trusts in the longer term.

However, we saw variation in how well trusts managed patients at risk, including whether they risk-reviewed patients to assess whether they needed hospital care, and how many patients were admitted as an emergency with ALD – as shown in **Figure 19** below. In some trusts, nearly all ALD admissions were as emergencies. Over time, the aim should be to reduce the number of emergency presentations from patients with alcoholic and non-alcoholic liver disease. Proactive management could help to reduce this figure, which should in turn reduce complication rates and length of stay, and improve outcomes for patients.

Figure 19: Proportion of Alcoholic Liver Disease admissions that were an emergency



Source: HES APC Apr 18 - Mar 19 & GIRFT questionnaire 2019

In line with NHS England and NHS Improvement's prevention programmes, trusts also need to screen emergency admissions for their alcohol intake and refer high users to an alcohol care team.

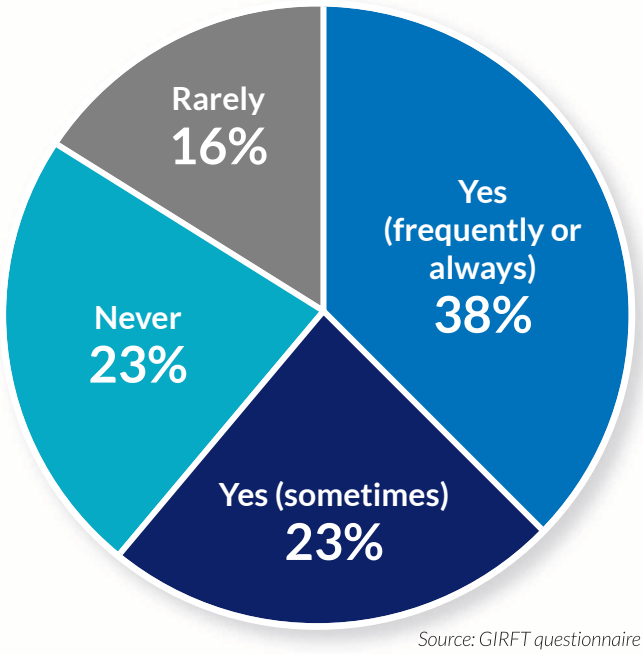
[72] *Roberts, S., John, A., Brown, J. et al (2019) Early and late mortality following unscheduled admissions for severe liver disease across England and Wales www.ncbi.nlm.nih.gov/pmc/articles/PMC6519290/*

Improving access to liver disease support services

In our questionnaires we found that 78% of trusts run an alcohol support service for inpatients. However, only 34% run this service for outpatients. In general, access to community detox facilities was inconsistent, as shown in **Figure 20** below.

Figure 20: Trusts with access to a community detox facility

Do you have access to a community detox facility for patients?



Source: GIRFT questionnaire 2019

Some of the trusts we visited had established proactive management programmes for patients with ALD. These programmes can identify at-risk patients earlier, and provide access to:

- dedicated alcohol care teams or alcohol and drug misuse nurses;
- community detox;
- outpatient or community clinics.

Some trusts were additionally making good use of fibroscans (elastography) alongside blood tests to identify early disease or disease that may progress to cirrhosis (see *Improving access to best practice fibrosis assessment via fibroscan or blood tests* on page 85).

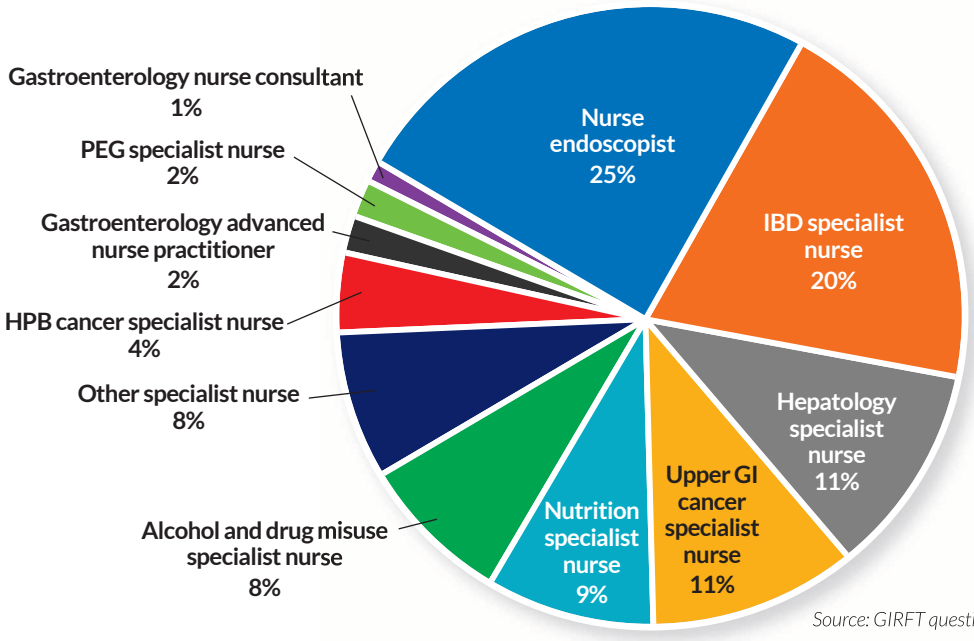
Trusts may also need to consider providing access to weight loss clinics for patients with or at risk of Non-Alcoholic Fatty Liver Disease (NAFLD) – for example working with diabetic management teams or dieticians.

With IBD, IBD specialist nurse helplines and flare clinics have been invaluable in reducing emergency admissions. In the same way, hepatology specialist nurses and hepatology helplines could help to reduce emergency admissions and enable community or outpatient care for liver disease.

Trusts may need to look at the mix of specialist nurses across the gastroenterology subspecialties, and ensure they have enough hepatology and substance misuse specialist nurses available to meet the increasing demand for these services.

In our research, we found that a relatively small proportion (11.4%) of gastroenterology specialist nurses were hepatology specialist nurses, and 7.9% were alcohol and drug misuse specialist nurses. The split of gastroenterology specialist nurses is shown in **Figure 21** below (although it is important to note that some nurses may have more than one role). Trusts may therefore need to consider increasing the number of these particular specialist nurses to support more proactive patient management for liver disease, especially as the number of liver patients continues to increase. During our visits, we encouraged trusts to use the data from their GIRFT data packs to strengthen business cases for recruiting more specialist nurses.

Figure 21: Types of gastroenterology specialist nurse (Whole Time Equivalents)



Source: GIRFT questionnaire 2019

CASE STUDY

Dedicated alcohol care teams reduce emergency readmissions

Liverpool University Hospitals NHS Foundation Trust

A dedicated alcohol care team with a clear training and competency framework has been established at the trust, overseen by an alcohol nurse consultant. This highly skilled team directly treats alcohol-related harm such as withdrawal, but also provides a more proactive service. This service is particularly focused on earlier diagnosis to prevent organ damage and liaises closely with other partners inside and outside the trust.

Patients with alcohol dependence often have complex health and social care needs, resulting in frequent hospital attendances. Care for these patients is usually designed to treat the medical conditions presented, rather than to mitigate causes, which are regularly exacerbated by non-medical problems. This failure to address the wider determinants of health leads to a cycle of readmissions to hospital or frequent A&E attendances.

The alcohol care team in Liverpool are trained to perform fibroscans, ascitic taps in A&E, and large-volume paracentesis in an ambulatory care setting. They are available seven days a week and have multiple links into the community and third sector organisations. They bring the expertise of these partners together into a weekly complex MDT meeting, which includes representation from liaison psychiatry, occupational therapy, primary care and homelessness services. Patients and carers are also involved in these MDT meetings where appropriate.

Results

The alcohol care team has improved cross-specialty recognition around alcohol use being a multi-system problem that causes end organ damage. This recognition has allowed the team to support other specialties in early diagnosis, through fibroscan for liver disease and cognitive screening for alcohol related brain injury (ARBI). The ARBI screening programme has enabled early initiation of treatment pathways, leading to improved patient and family outcomes. Repeat attendances to A&E have been reduced, especially for patients on the post-ARBI pathway.

CASE STUDY

Reducing alcohol-related bed days through screening, triage and outreach

University Hospitals Dorset NHS Foundation Trust (formerly Poole Hospital NHS Foundation Trust)

Poole has reduced alcohol-related admissions, bed days, A&E attendances and ambulance call-outs through alcohol screening linked to detox services and assertive community outreach.

The Alcohol Care and Treatment Service (ACTS), run in partnership with local drug and alcohol commissioners, evolved from an exercise in 2012 to scope the impact of alcohol on hospital services. This led to a screening programme to measure the problem among people admitted across A&E, surgery, trauma, care of the elderly and maternity.

Screening uses the Alcohol Use Disorders Identification Test (AUDIT) tool to assess alcohol misuse. Some patients with a high score are triaged to detox services, which are often provided on an outpatient basis, reducing length of stay and providing care closer to home. Others may be signposted to community services, including social care as appropriate.

Meeting unmet need

The screening programme highlighted unmet need among people who were frequent attenders at hospital, or were high-impact users, but were previously unknown to community alcohol services. This group was reluctant to enter conventional treatment, so the trust developed an outreach team to monitor and support them in the community, offering alternative solutions such as cognitive behavioural therapy and social prescribing to divert them from drinking and prevent readmissions.

The ACTS team has grown from one specialist nurse to four full-time nurses, two outreach workers and an addiction care co-ordinator seconded from a local charity. Multi-agency support from charities and commissioners is co-ordinated through weekly multidisciplinary team meetings. Having developed expertise in alcohol-related care, Poole has been appointed as a provider of inpatient detox services for Dorset and some neighbouring authorities, which now provides income for the trust.

Results

The trust now screens and signposts more than 25,000 patients annually, resulting in 435 fewer alcohol-attributable bed days. During its first year, the outreach team saved the trust £114,000 in reduced admissions, A&E attendances and ambulance call outs.

CASE STUDY

Nursing support to reduce the impact of alcohol and cirrhosis

Imperial College Healthcare NHS Trust

Dedicated nursing support for alcohol and cirrhosis services is helping Imperial to engage patients in their care, and reduce Did Not Attend (DNA) rates.

A dedicated nurse works with consultants in the cirrhosis clinic providing patient education, including understanding cirrhosis, medication, lifestyle advice and nutrition, as well as reinforcing the importance of attending appointments and adhering to treatment. The nurse acts as a point of contact, co-ordinating care (including ambulatory care, testing, treatment and admissions) and supporting self-management.

The trust's alcohol service includes a hepatology alcohol liaison nurse who works with people that present in hospital with excessive alcohol consumption. The nurse identifies potential liver disease at an early stage and acts as a single point of contact for preventative interventions such as detox, as well as supporting them to manage their dependence and maintain abstinence.

Results

Patient engagement and satisfaction have improved. Nurse-led education has helped improve understanding of liver disease and reduce DNA rates for critical appointments such as ultrasound screening for liver cancer. Having a single point of contact has proved popular not only with patients and their families, but also consultants, who appreciate the support in managing patients who are often sick and may experience multiple barriers to care.

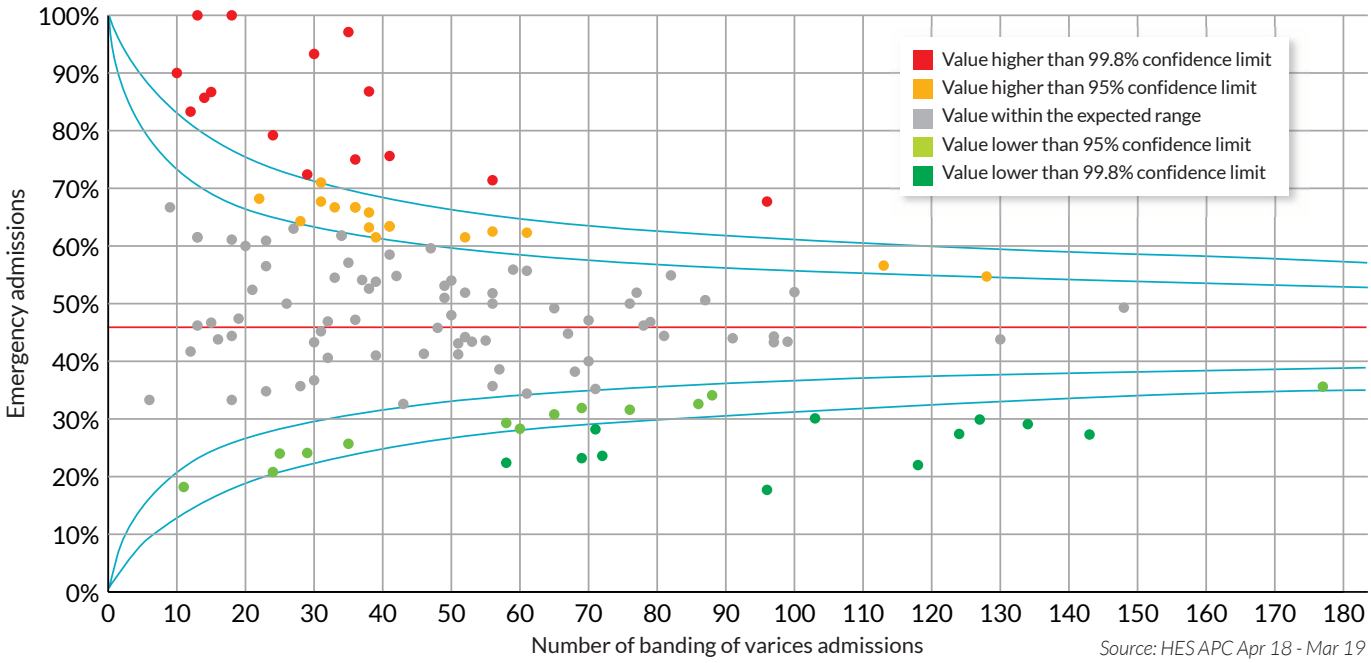
Improving screening: preventing bleeds from varices

There is variation in offering gastroscopy to patients with cirrhosis to screen for varicose veins in the oesophagus or stomach (varices), in order to reduce the risk of bleeds. We saw variation in the proportion of patients having varices treated as an emergency (**Figure 22**), with several performing over 80% of variceal banding procedures as emergency admissions, as shown in the chart below. We also saw variation in the length of stay following variceal banding as an emergency admission (**Figure 23**), although we expect some of this variation will be due to the underlying condition or conditions that caused the emergency admission.

Varices are one of the complications of cirrhosis of the liver. When varices bleed, it can be catastrophic for patients. If trusts consistently offer gastroscopy to patients with cirrhosis to identify any varices, they can start primary prophylactic treatment to reduce the risk of a bleed if varices are found (although a bleed cannot be completely prevented in everyone). This usually involves treatment with beta blockers, unless the varices are large and may be at high risk of spontaneously bleeding, in which case they may be banded as a primary preventative measure. Screening for and treatment of varices should be carried out in line with the *NICE guideline NG50 on cirrhosis in over 16s*[73].

If a patient has needed treatment for variceal bleeding before, trusts need to put secondary prevention measures in place to reduce the risk of another bleed. Generally, this will be a banding programme to eradicate the varices. This can usually be performed as a day case, using endoscopy. If a patient suffers an acute variceal bleed, this is much higher-risk than an elective day case banding procedure, and much harder to treat.

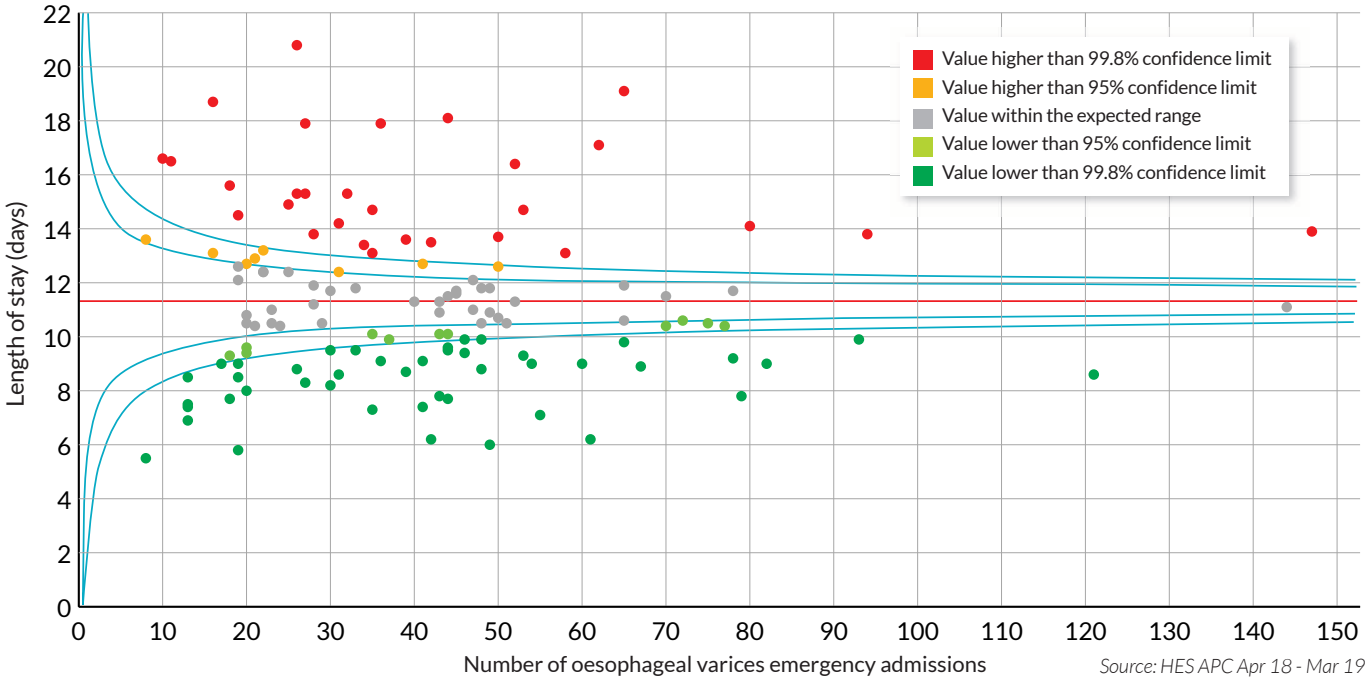
Figure 22: Proportion of varices banding procedures performed as an emergency



Source: HES APC Apr 18 - Mar 19

[73] *www.nice.org.uk/guidance/ng50*

Figure 23: Length of stay for oesophageal varices procedures performed as an emergency



Source: HES APC Apr 18 - Mar 19

CASE STUDY

Preventative banding to reduce risk of variceal bleeding

Gloucestershire Hospitals NHS Foundation Trust

A proactive variceal surveillance and banding service for patients with cirrhosis has reduced the risk of acute variceal bleeding, with improved patient outcomes and related savings on the cost of emergency admission and treatment.

The service was developed to align with *NICE guideline NG50*[74], published in 2016, which recommended that patients with varices should be offered banding to prevent bleeding. The trust was also concerned about difficulty co-ordinating access to emergency theatres and the multidisciplinary staff required to manage acute variceal bleeding incidents, a process that was previously sometimes taking several hours.

The team moved to a preventative approach with banding procedures routinely offered in a day case service with its own dedicated lists – previously variceal surveillance happened sporadically on mixed endoscopy lists. New patients are entered into the service when they first present with cirrhosis, with initial endoscopy to screen for varices, with banding if required, followed by surveillance at appropriate intervals.

Results

By banding in a planned way, patients are less at risk of acute variceal rupture, while staff find it easier to prepare the required resources and equipment in advance. Registrars and endoscopy staff also have enhanced opportunities to train in banding. The risk of acute variceal bleeding has fallen at the trust, improving outcomes for patients. This has led to fewer emergency admissions and less demand for theatre time both in and out of hours. Length of stay following admission for variceal bleeding is also lower than the England average.

[74] *www.nice.org.uk/guidance/ng50*

Using national initiatives to drive up quality

Some initiatives such as IQILS (Improving Quality in Liver Services) accreditation, set up by the British Association for the Study of the Liver (BASL), BSG and RCP, have been established to drive up quality and address increasing mortality in liver disease. Trusts should register for and work towards IQILS accreditation or similar initiatives to improve quality, and to access resources such as recommendations and shared knowledge.

According to our questionnaire, 35 (40.2%) of the 87 trusts who responded to the question were registered for IQILS and working towards accreditation. There was some slight discrepancy between our questionnaire data and IQILS' own information: as of August 2020, according to the IQILS website 52 services across England, Wales and Northern Ireland were registered for IQILS and working towards accreditation. We saw some evidence that trusts were not always certain of their IQILS status: at the time we sent our questionnaire, the IQILS programme was quite new, which may account for some of this uncertainty.

See also *Making use of existing quality programmes* on page 116.

Managing Alcohol-Related Brain Injury

Patients with Alcohol-Related Brain Injury (ARBI) often have lengthy stays in hospital, resulting in issues with patient flow.

When considering proactive management of patients with ALD, trusts should ensure programmes include assessment of whether a patient has, or is at risk of, an ARBI. Where possible, trusts need to consider whether these patients can be managed within the community – and if so, how. In our questionnaires, we asked whether trusts had access to a community ARBI service, and how frequently:

- 58% said they 'never' have access;
- 21% said they 'rarely' have access;
- 15% said they 'sometimes' have access;
- only 7% of trusts 'frequently' or 'always' have access.

If trusts can manage these patients more effectively, it may significantly reduce admissions and length of stay. The numbers of inpatients affected by ARBI is small, but their long lengths of stay can be very significant.

Improving access to best practice fibrosis assessment via fibroscan or blood tests

Fibrosis, which would previously have required a biopsy to identify, can now be assessed using non-invasive tests, such as a blood test (including a FIB4 or Enhanced Liver Fibrosis (ELF) blood test) or an ultrasound elastography scan (such as fibroscan). Liver biopsies will still be needed in some cases. These assessments can help trusts to assess patients' risk level for liver disease, with higher-risk patients offered a hospital follow-up, and lower-risk patients discharged back to their GP.

We found that the use of fibroscans (or similar elastography technology) varies across trusts.

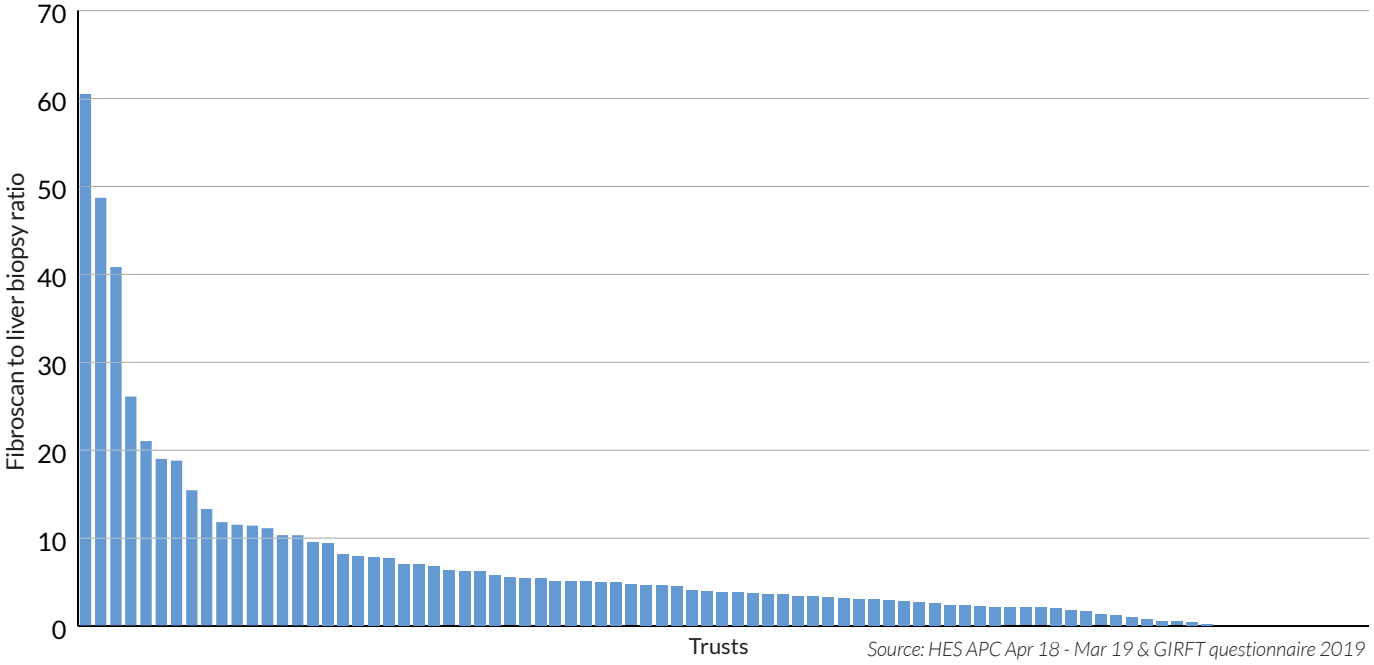
Open access fibroscans for GPs – where GPs request a fibroscan and receive results directly – could help with earlier diagnosis of liver disease and also with managing demand for secondary care, ensuring hospital clinics are focused on high-risk patients.

However, we found that the ratio of fibroscans to liver biopsies varies considerably (**Figure 24**). Of those trusts who reported fibroscan figures in responses to our questionnaire, the trust with the largest ratio had a ratio of 61 fibroscans to every liver biopsy, while the trust with the smallest ratio was only performing 0.19 fibroscan to every liver biopsy. We found that 12 trusts refer to another trust for fibroscans, and two trusts have no access to fibroscans at all. Some of this variation may be due to trusts using blood tests (such as the FIB4 or ELF tests) to help identify liver disease instead.

Since we started the GIRFT process, NICE has produced *Guidance on using fibroscans (MIB216)*[75], which trusts can use to help them focus its use.

[75] *www.nice.org.uk/advice/mib216*

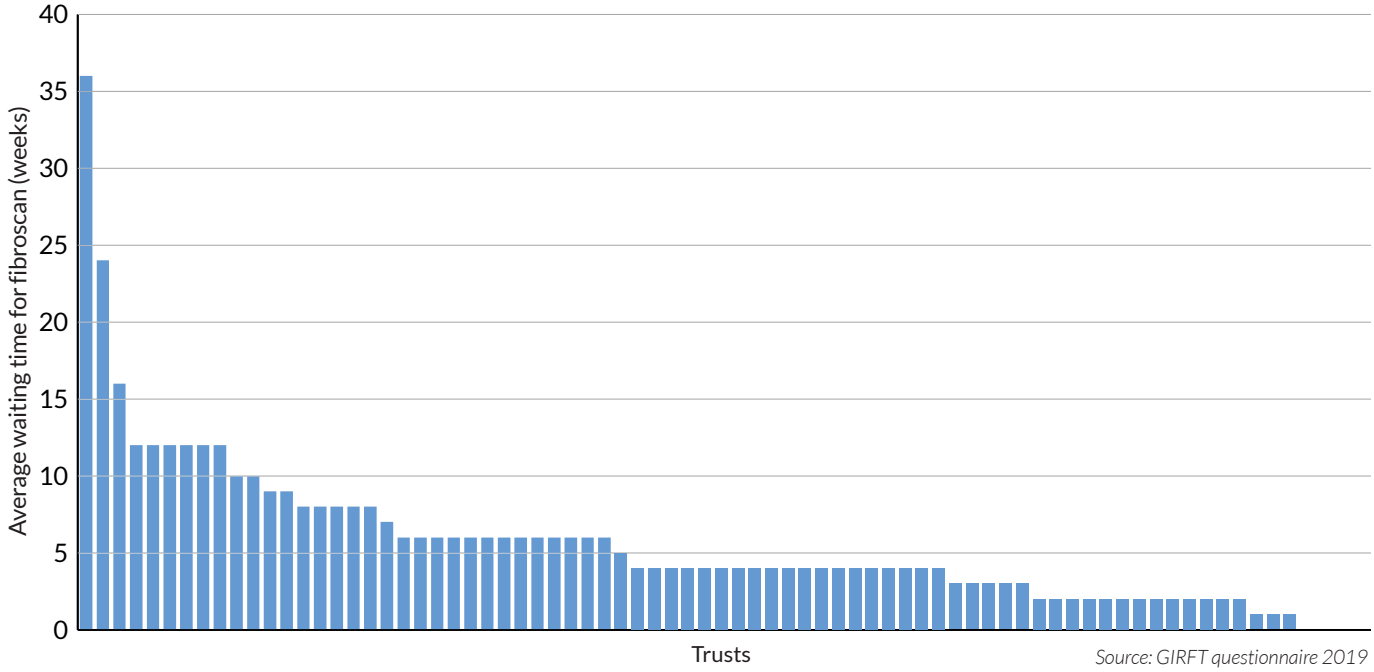
Figure 24: Ratio of fibroscans to liver biopsies



Source: HES APC Apr 18 - Mar 19 & GIRFT questionnaire 2019

There was also variation in the number of weeks that patients needed to wait for a fibroscan, as shown in **Figure 25**, from 1 week to 35 weeks. The average was 12 weeks.

Figure 25: Access to fibroscans (average wait time for fibroscans)



Source: GIRFT questionnaire 2019

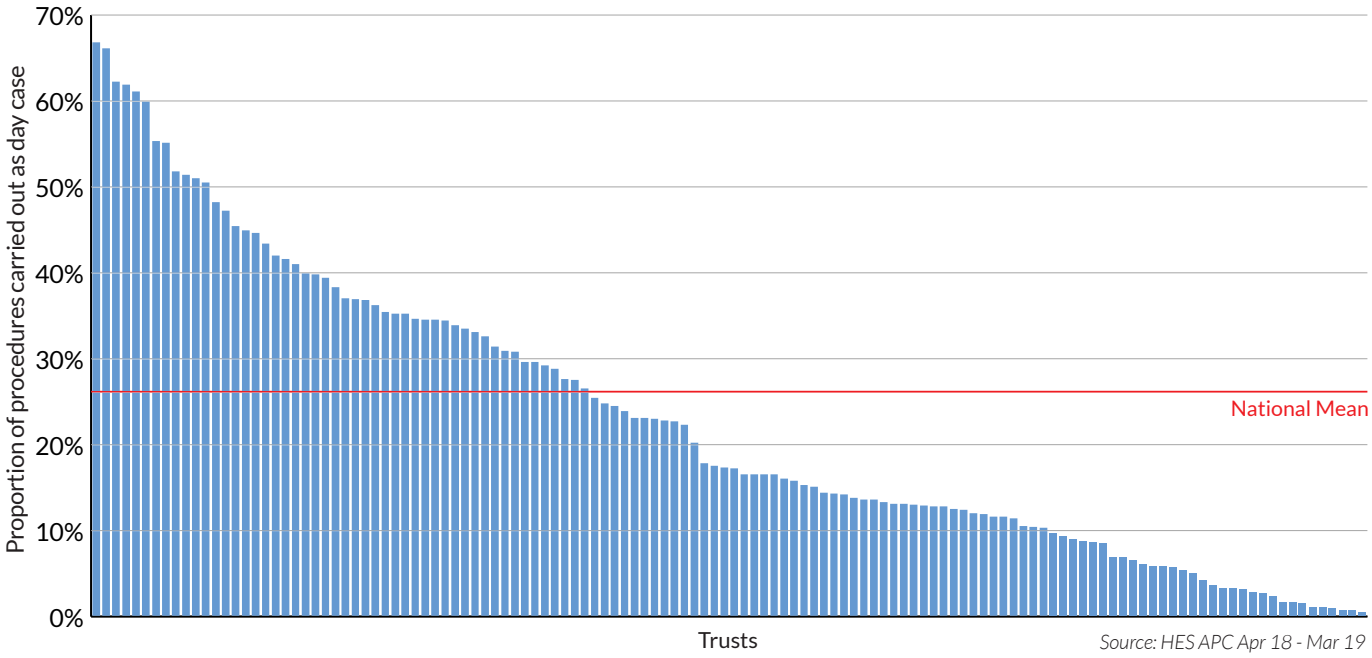
Reducing complications from draining ascites

In our visits we saw variation between trusts in the rates of liver disease complications, including variation in the day case rate and complication rates for draining ascites (excess abdominal fluid that collects in the abdomen when the liver is not functioning properly, or with some malignancies).

If trusts are proactive with managing patients with ascites, for example by offering paracentesis (drainage) as a day case procedure where appropriate, this will reduce the number of emergency admissions and readmissions for ascites. In turn, this will reduce patients' length of stay – which can be longer if the patient is admitted as an emergency – and improve their outcomes.

As **Figure 26** below shows, there was wide variation in the proportion of ascitic drainage procedures performed as day cases – from 67% down to 1%. Please note that due to coding issues in the data available, we could not differentiate ascitic taps (diagnostic) from ascitic drainage procedures (therapeutic). This means that trusts should carefully monitor their own day case ascitic drainage rate to ensure they are carrying out drainage procedures as day cases wherever possible. GIRFT's coding team is working to fix the coding issue for future use.

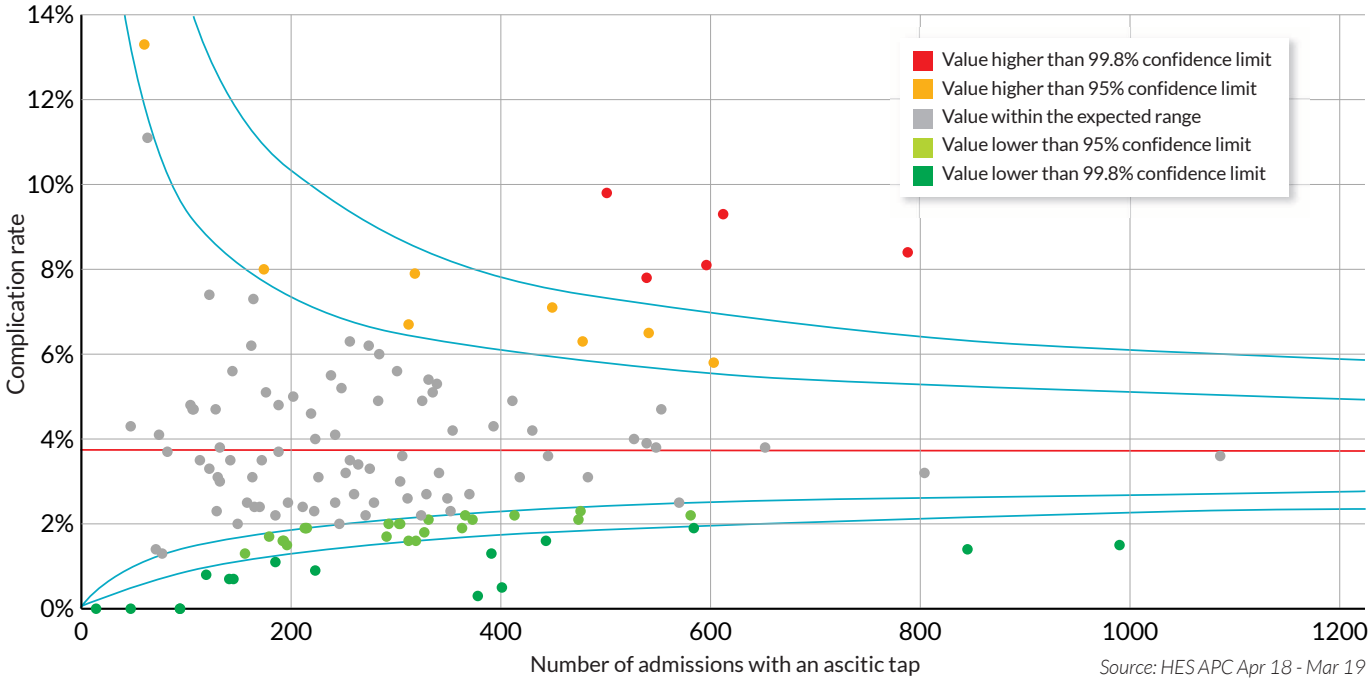
Figure 26: Proportion of ascitic drainage procedures carried out as day case



There was also variation in the complication rate following ascitic drainage procedures (**Figure 27** below: as with **Figure 26** above, these could be tap or drain procedures).

Figure 27 shows hospital episodes where an ascitic drainage procedure was performed that were recorded in HES as having a suboptimal outcome (a complication). However, it is important to note that not all complications recorded in HES will be as a direct result of the procedure.

Figure 27: Rate of complications for ascitic tap procedures



Source: HES APC Apr 18 - Mar 19

CASE STUDY

Preventing delays in paracentesis and improving patient experience

Leeds Teaching Hospitals NHS Trust

Proactively planning paracentesis (draining of ascites) has enabled the trust to dramatically improve patient experience, reduce average length of stay and save over 5,000 bed days since 2016.

Prior to the development of the trust's paracentesis day case unit, patients needing paracentesis were admitted via A&E and spent time waiting to access a ward due to limited inpatient bed capacity. Once admitted, patients stayed in hospital on average for 2.5 days.

The paracentesis day case unit was established in an unused treatment room on the liver transplant unit, using recliner chairs (previously used for kidney dialysis) to reduce the likelihood that these might be redeployed as inpatient beds for other patients. Patients able to attend the day case unit do not need to stay overnight. Continuity of care for these patients is also improved as, once seen for paracentesis, further appointments are offered at appropriate intervals (every two weeks, weekly or more frequently, according to their needs).

The service has grown significantly in the last three years and now has ten chairs/beds with three clinical nurse specialists undertaking paracentesis, alongside a clinical support worker. These specialist teams can also manage associated medical complications of chronic liver disease at the time of paracentesis attendance, resulting in more holistic care for the patient.

Results

Preventing unplanned admissions for paracentesis through a proactive approach has reduced length of stay and saved bed days. The success of the service means the number of large-volume paracentesis procedures has doubled between May 2019 and July 2020, and paracentesis assessments have increased five-fold. For patients with end-stage liver failure, the day case service has reduced their time spent in hospital, giving them more time to spend with their families and significantly improving their quality of life.

Improving the use of cirrhosis care bundles, discharge checklists and specialist follow-up to standardise and improve care

We found potential variation in looking for and treating Spontaneous Bacterial Peritonitis (SBP). Checking for SBP can form part of a cirrhosis care bundle – a list of recommended care within the first 24 hours of a patient's emergency presentation to hospital with decompensated cirrhosis (where their liver is no longer functioning properly). This suggests that not all trusts are using a cirrhosis care bundle. We recommend that all trusts use a cirrhosis care bundle to ensure they are screening for SBP, where appropriate, as well as carrying out other useful checks.

SBP is a condition where a bacterial infection develops in ascitic fluid in the abdomen, but there is no obvious source for the infection. It is a life-threatening condition, and more common in patients with cirrhosis. It can be treated with antibiotics, but patients should also then take prophylactic antibiotics after initial treatment, to prevent recurrent episodes of SBP infection from occurring. Prophylactic treatment should be offered to patients with ascites and cirrhosis in line with the *NICE Guideline NG50 on cirrhosis in over 16s*[76].

All patients who have been admitted with decompensated liver disease should also be booked for a specialist follow-up review, as there is good evidence that patients do better when managed by specialists[77]. Trusts may need to consider developing and strengthening regional networks to allow access to specialist centres and to share experience and expertise.

We saw good practice in Newcastle-upon-Tyne Hospitals NHS Foundation Trust, where a cirrhosis discharge checklist, developed locally, is used when patients leave the hospital. This encourages staff to check that correct advice has been given and follow-up services arranged for any patient with cirrhosis. All the measures are designed to improve the quality of hospital discharges and reduce readmissions. For example, clinicians must confirm that:

- liver follow-up appointments have been booked;
- prophylactic antibiotics have been prescribed if the patient has had SBP before;
- follow-up care for ascites has been arranged, such as day case ascites drainage;
- renal function has been checked;
- community alcohol team involvement has been checked;
- information and guidance has been given to the patient;
- all useful information has been detailed in the discharge letter.

In addition, the team developed a 'Cirrhosis self-management toolkit' to provide patients with detailed information to help them optimise the management of their condition.

You can find information on the project at *www.bsg.org.uk/clinical-resource/decompensated-cirrhosis-discharge-bundle* or at *www.basl.org.uk*

[76] *www.nice.org.uk/guidance/ng50*

[77] *Roberts SE, John A, Brown J, Napier DJ, Lyons RA, Williams JG. Early and late mortality following unscheduled admissions for severe liver disease across England and Wales. Alimentary Pharmacology & Therapeutics 2019; 49(10): 1334-45.*

Recommendations: liver disease

Recommendation	Actions	Owners	Timescale
11. Review liver disease programmes, particularly focusing on early identification, proactive management and reduced occurrence of, and emergency admissions for, cirrhosis.	**a** Establish proactive programmes to manage patients with alcoholic and non-alcoholic liver disease, including: • improved access to clinics; • access to dedicated alcohol care teams and/or alcohol and drug misuse nurses; • access to community detox; • access to weight-loss clinics for patients with or at risk of Non-Alcoholic Fatty Liver Disease, potentially working with dieticians or diabetic management teams; • screening of emergency admissions for high alcohol use, in line with NHS England and NHS Improvement prevention programmes.	Trusts, Integrated Care Systems, liver networks	Substantial progress to be made within 12 months of publication
	b Register for and work towards Improving Quality in Liver Services (IQILS) accreditation or similar initiatives to share learning and best practice.	Trusts	Registration within 6 months of publication
	c Establish programmes to improve early identification of Alcohol-Related Brain Injury (ARBI), or of patients at risk, including better links to community detox.	Trusts	Within 18 months of publication
	d Review any variations in paracentesis complication rates and identify any underlying concerns, in order to share best practice and reduce risk of harm.	Trusts	Within 12 months of publication
	e Improve the day case rate for paracentesis.	Trusts	Within 18 months of publication
12. Improve screening and treatment for varices	**a** Offer screening gastroscopy for patients with cirrhosis to detect oesophageal varices – in line with NICE guidance.	Trusts	On publication
	b Ensure appropriate primary prophylaxis (such as beta blockers) and secondary prevention, including increasing day case rates of variceal banding, to reduce the risk of acute variceal bleeding.	Trusts	Ongoing
13. Work with primary care to give direct open access to best practice fibrosis assessment.	**a** Increase use of either appropriate blood tests (in consultation with pathology colleagues), or scanning technology (such as fibroscan or equivalent) in line with *NICE guidance on using fibroscans (MIB216)*[78], preferably giving GPs open access to book these scans.	Trusts	Within 6 months of publication

[78] *www.nice.org.uk/advice/mib216*

Liver disease (continued)

Recommendation	Actions	Owners	Timescale
14. Ensure awareness and consistent use of cirrhosis care bundles and discharge checklists.	**a** Ensure that all admitting staff across the trust are aware of cirrhosis care bundles, and use these consistently for patients who are admitted to hospital with decompensated liver disease. The bundle should include screening for and treating Spontaneous Bacterial Peritonitis (SBP).	Trusts	As soon as possible after publication
	b Ensure that all discharging staff across the trust are aware of and use the cirrhosis discharge checklist for patients being discharged after an admission with decompensated liver disease.	Trusts	As soon as possible after publication
	c Ensure all patients diagnosed with SBP are put on antibiotic prophylaxis, to reduce risk of recurrent infection.	Trusts	Ongoing
	d Improve engagement with regional liver networks which have key links to centres of expertise.	Trusts, Integrated Care Systems	Within 12 months of publication

Endoscopic Retrograde Cholangio-Pancreatography (ERCP)

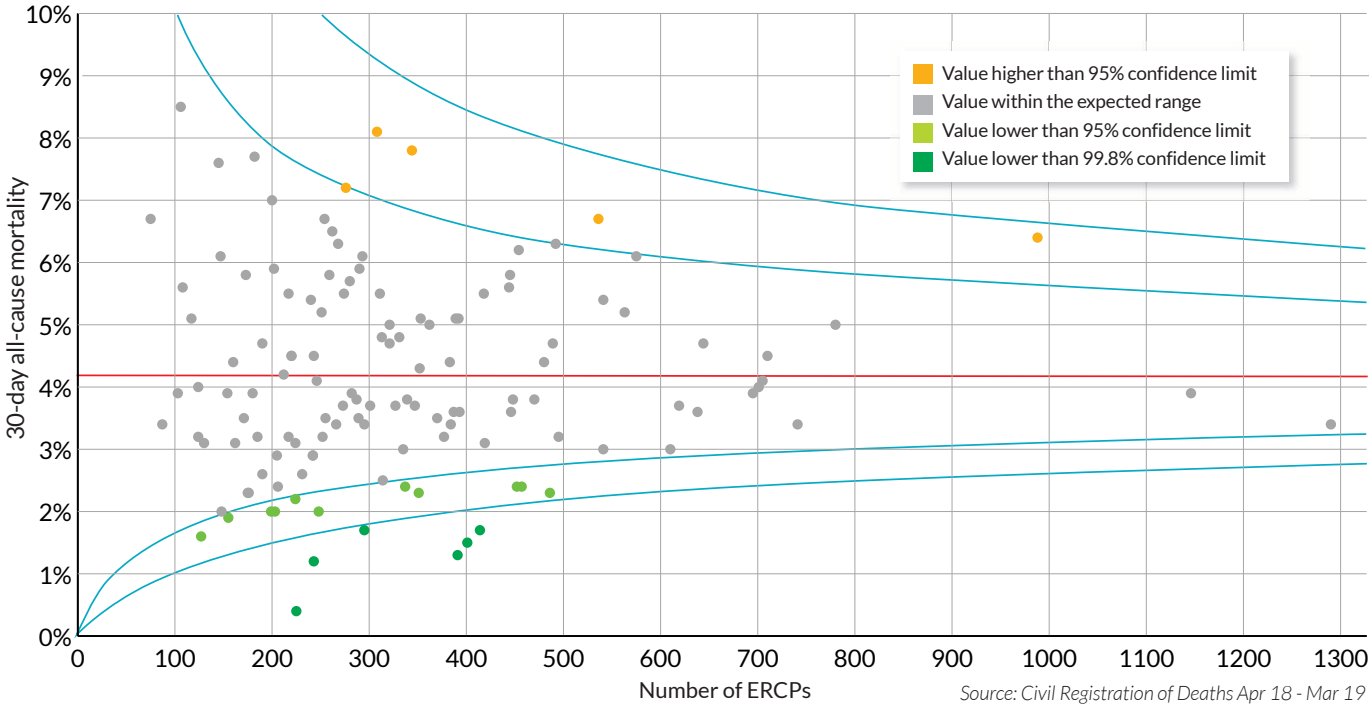
Using ERCP appropriately

ERCP is a procedure that combines the use of endoscopy and X-rays (fluoroscopy) to diagnose and treat some problems of the biliary or pancreatic ductal systems, such as stones or cancers. The test is invasive and high-risk, in comparison to other endoscopy tests. We found a significant 30-day all-cause mortality rate following ERCP tests, as shown in **Figure 28** below. The national average is 4.2%, with a range from just over 0% up to 8.5%.

The high mortality rate of ERCP may be due to:

- some patients already suffering from an underlying existing serious condition (such as cancer or biliary sepsis);
- the recognised risks of serious complications of this procedure, such as perforation, bleeding or inflammation of the pancreas (pancreatitis).

Figure 28: Trusts' 30-day all-cause mortality rates for ERCP procedures

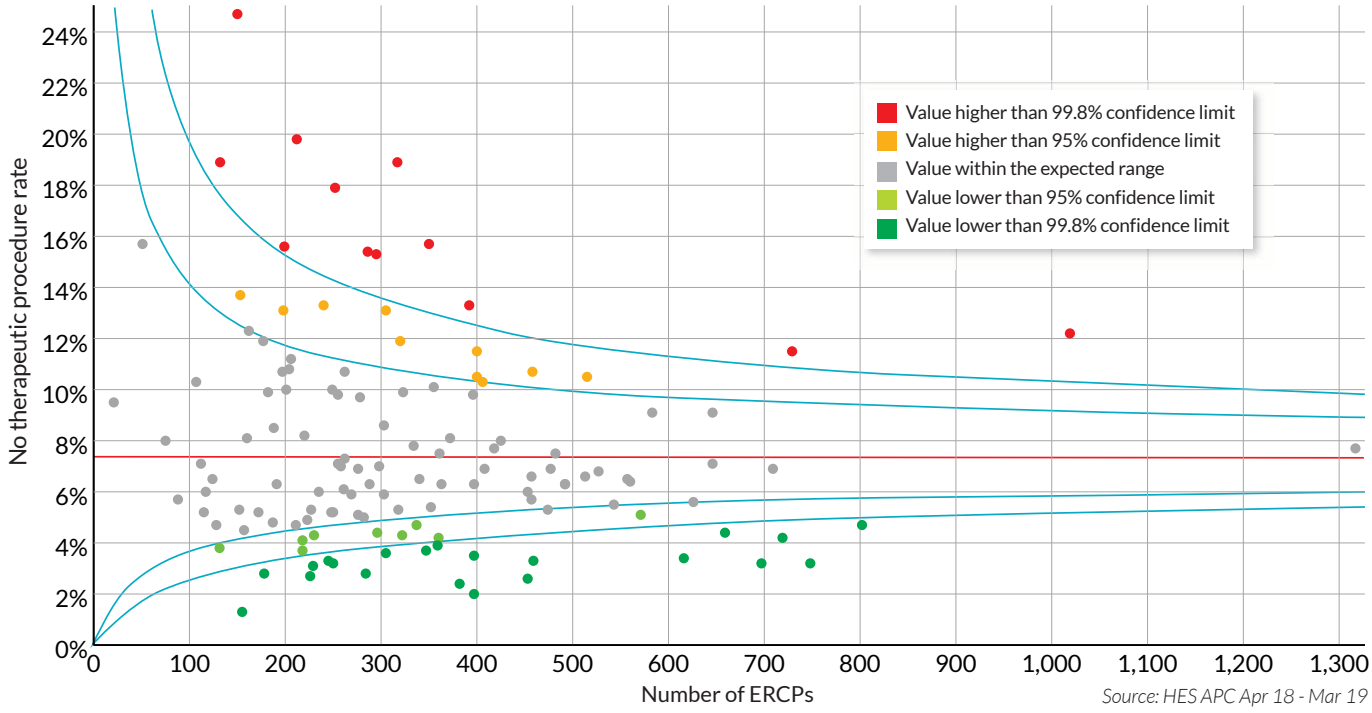


Source: Civil Registration of Deaths Apr 18 - Mar 19

Because ERCP procedures are high-risk, they should only be used where the clinician is aiming to carry out a therapeutic procedure, such as removing stones, taking samples (biopsies or brushings) or placing a stent. They should not be used as a purely diagnostic test. Clinicians may also wish to refer to the *NICE clinical guideline CG188 on use of ERCP in gallstone disease*[79], which covers how ERCP should be used to clear bile duct stones in relation to laparoscopic removal of the gallbladder.

Clinicians need to consider safer alternatives to ERCP, such as an Endoscopic Ultrasound Scan (EUS) or Magnetic Resonance Cholangio-Pancreatography (MRCP) – a non-invasive MRI scan of the bile ducts, if this is just for diagnostic purposes (so long as these procedures can be adequately resourced, in consultation with radiology colleagues). However, our analysis showed that some trusts were performing a significant number of ERCPs where no therapeutic procedure was coded, suggesting these may have been purely diagnostic tests. This is shown in **Figure 29** below.

Figure 29: Proportion of ERCPs recorded as performed without any therapeutic procedure



Source: HES APC Apr 18 - Mar 19

Note to graph: some procedures coded as 'non-therapeutic' may be due to coding issues, as administrative staff may be working from (for example) discharge letters, and not have the detail to change the default code, which is non-therapeutic.

Where the ERCP collected brushings, but there was no other therapeutic intervention, these have been counted as 'therapeutic'. This is because brushings could not be collected using non-invasive tests.

[79] *www.nice.org.uk/guidance/cg188*

Improving ERCP safety

There may be a need to improve ERCP safety by consolidating services and reviewing patients at ERCP multidisciplinary team (MDT) meetings.

ERCP – The Way Forward[80], a publication by the BSG, makes several recommendations to ensure ERCP services are delivered as safely as possible. Service improvements may include consolidating local services, so that ERCP tests are only carried out by clinicians who have sufficient experience and regular practice, performing a minimum number of ERCPs each year. JAG is finalising a training pathway and set of standards to be used for certification in ERCP.

Clinicians should carry out careful vetting and pre-assessment for prospective ERCP patients. We recommend MDT meetings take place to decide on which patients require ERCPs and to review outcomes. MDT meetings are currently used to review patients put forward for many less risky procedures and conditions with lower mortality rates. However, in our questionnaires we found only 28% of trusts were running ERCP-specific MDT meetings. ERCP-specific MDT meetings would support patient safety and quality improvement, and may help reduce the likelihood of complications and readmissions. However, when an ERCP is indicated in an emergency, the procedure should not be delayed while waiting for a weekly MDT meeting.

ERCP MDT meetings should involve ERCP practitioners to discuss cases, but ideally also include representatives from radiology and EUS practitioners. Involving EUS practitioners may increase the number of combined ERCP/EUS procedures. This is where an EUS is performed first (for example to see if a stone is still in situ) before deciding on whether it is appropriate to commit to an ERCP at the same appointment.

CASE STUDY

Optimising safe use of ERCP through careful case selection

University College London Hospitals NHS Foundation Trust (UCLH)

The trust's ERCP service is a well-established secondary and tertiary care service, providing complex therapeutic procedures in a safe and efficient manner thanks to a well-functioning multidisciplinary team (MDT) which ensures careful case selection.

The UCLH MDT, including hepatopancreatobiliary gastroenterologists, surgeons and radiologists, meets weekly to carry out detailed assessments of patients referred for ERCP and plan post-procedure care and follow-up. The MDT ensures that all of the following are in place:

- each patient's case has been carefully assessed;
- appropriateness of the procedure has been considered;
- all possible alternatives have been tried or exhausted;
- all necessary non-invasive investigations have been performed and reviewed;
- the specific goals of treatment for each patient are clear;
- patients have been triaged to decide whether anaesthetic input is required;
- a clear decision about whether inpatient admission would be required.

The MDT also allows for more informed discussion around consent with the patient, outlining the chances of success and potential complications before the procedure.

If ERCP is requested for diagnosis, the team ensures that there is no alternative, and that all non-invasive investigations have been tried and reviewed first.

Results

Careful case review by the MDT has reduced the percentage of patients having diagnostic ERCP to very low levels, and ensures this test is always performed with therapeutic intent. Detailed pre-procedure planning has enabled a high percentage of ERCP procedures to be performed as day cases, without the need for inpatient admission to hospital. This is particularly welcome as around 50% of patients having ERCP procedures at UCLH come from other parts of the country. It also reduces the risk of procedures being cancelled due to lack of inpatient bed availability.

[80] *Wilkinson, M. et al. (2014) ERCP – The Way Forward, A Standards Framework. British Society for Gastroenterology. www.bsg.org.uk/resource/ercp---the-way-forward--a-standards-framework-pdf.html*

Creating regional ERCP networks with specialist centres

In our deep dives, we also found that there was variation in the proportion of ERCP procedures for stone disease carried out across the country. This may suggest that there is variation in the ability of endoscopists to clear the bile ducts of stones the first time. Trusts may need to interrogate their data to identify if they have high levels of repeat ERCPs for stone disease, which may indicate a low success rate for first-time removal of stones. If this is the case, they should consider how they can improve this rate.

If trusts are showing low success rates, one solution could be to create a regional network at Integrated Care System level. These networks would be run using the ERCP MDTs to decide on where high-risk procedures should be performed.

Creating a regional ERCP network could help with:

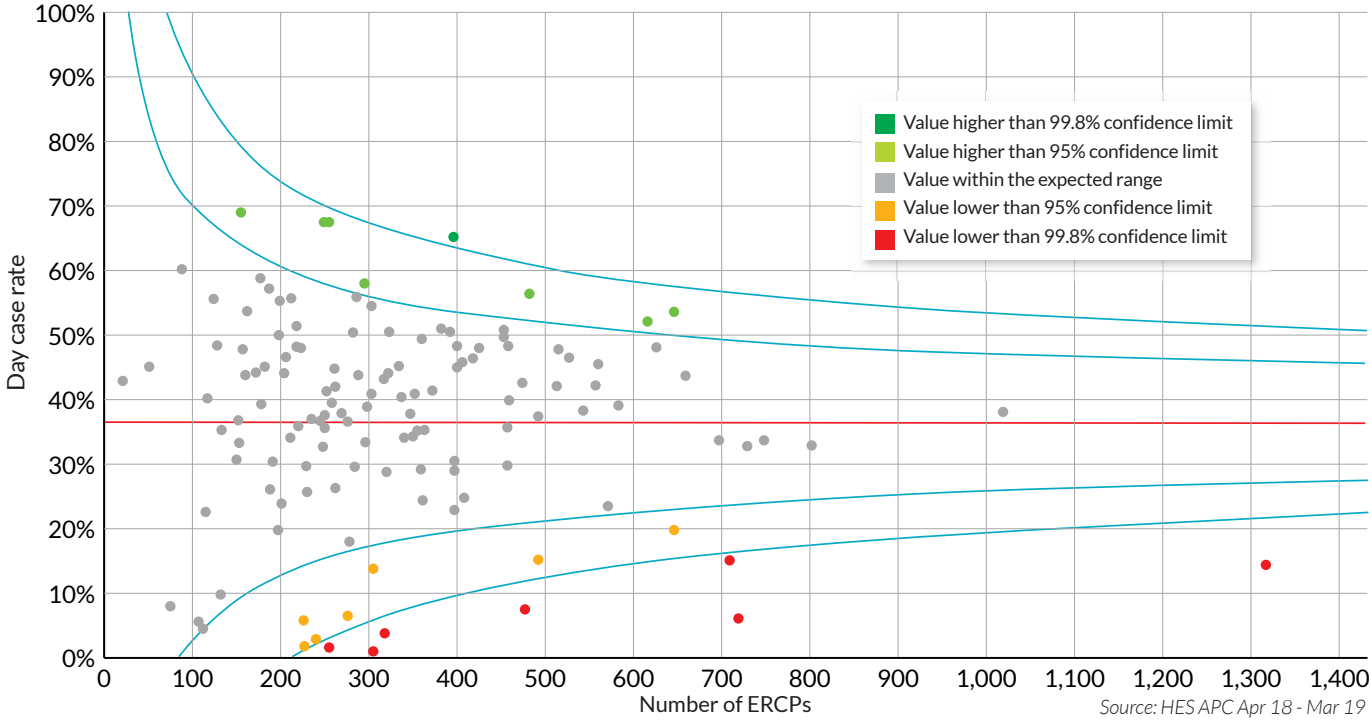
- Focusing expertise into specialist centres – especially if some trusts in the region are only carrying out relatively few ERCPs currently.
- Supporting out-of-hours provision, by creating a regional on-call out-of-hours ERCP service. In our research, only 14 out of 90 trusts (15.6%) who answered our question had an out-of-hours ERCP service.
- Supporting the use of combined ERCP/EUS procedures at regional centres (see above).
- Optimising radiology resource.
- Moving towards anaesthetic-supported ERCPs. Anaesthetic-supported ERCPs are less traumatic for the patient than procedures carried out under conscious sedation, and may improve first-time completion rates and so reduce the need for repeat procedures. However, in our research we found access to regular anaesthetic-supported lists (ASLs) within endoscopy units was limited. Of the 87 trusts that answered this question, 20.7% had no access to ASLs; a further 52.9% had access to ASLs, but only fortnightly, monthly or on an ad hoc basis. Only 20.7% of trusts had ASLs at least weekly.

Performing ERCPs as day cases

During our visits, we found variation in the rate of ERCPs performed as day cases, with some centres having very low rates of day case ERCPs – as shown in **Figure 30**.

Where trusts have low rates, they may need to review their ERCP pathways to ensure that they are enabling ERCPs to be carried out as day cases wherever possible, to avoid unnecessary overnight stays for patients and to improve patient flow. Some patients undergoing ERCP will be particularly unwell, and will either already be inpatients or will need to stay overnight, but in general the aim should be to perform ERCPs as day case procedures wherever possible and safe to do so.

Figure 30: Rates of ERCPs performed as day cases



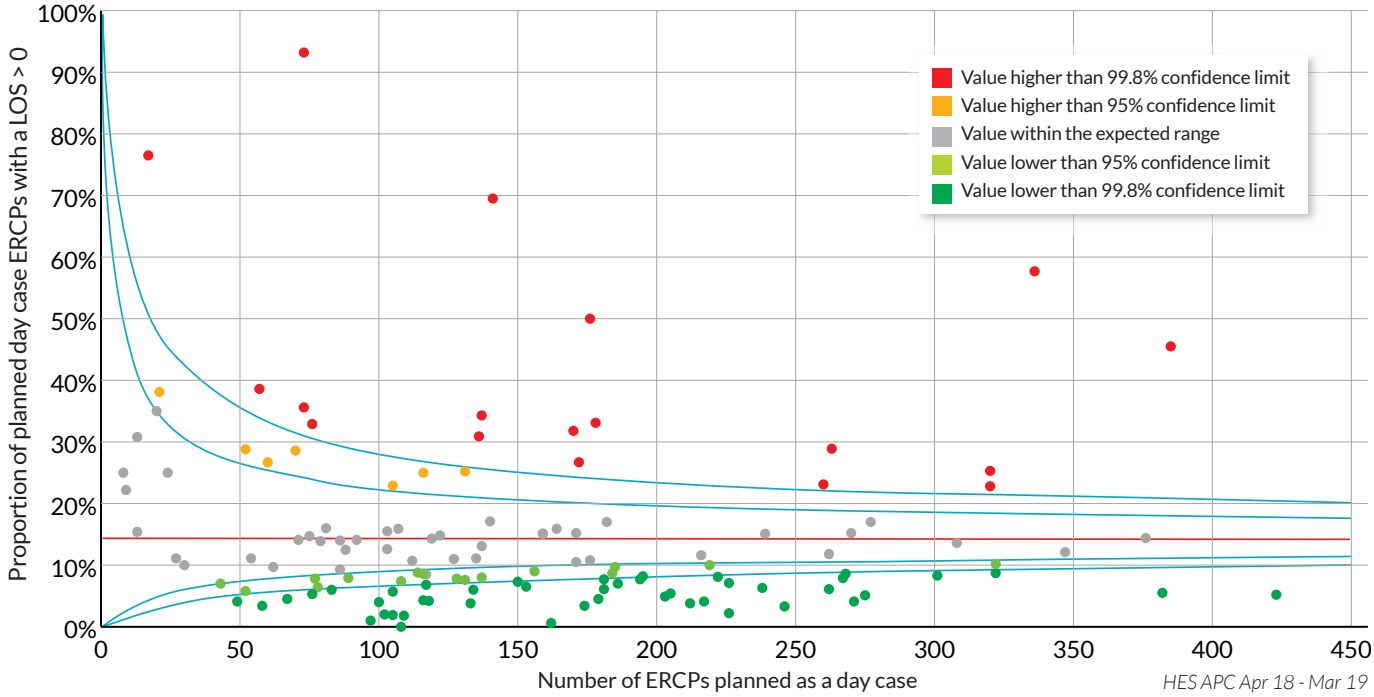
Source: HES APC Apr 18 - Mar 19

Scheduling ERCPs to ensure patients recover safely

Part of performing ERCPs safely should be to ensure that, wherever possible, ERCPs are scheduled to happen on morning lists. If ERCPs are carried out in the afternoon, patients may be more likely to stay overnight to recover. When this happens, patients' recovery more commonly takes place during on-call time in the evening on a general ward, rather than in the endoscopy unit. This means it is less likely there will be experienced endoscopy nurses or endoscopists on hand, who are more familiar with signs of complications from this procedure and how to manage these.

We found that in some trusts a large proportion of ERCPs planned as day cases were then coded as overnight stays, as shown in **Figure 31** below, with some trusts reporting that as many as 93% of day cases stayed overnight. This may be due to a recording issue (see note below graph), but trusts need to interrogate their own data carefully to work out whether this is the case. If a large proportion of day case ERCP patients are indeed staying overnight, trusts may want to interrogate why this is happening and identify ways to reduce this – for example using ERCP MDTs to help with case selection for day case procedures versus planned overnight admissions.

Figure 31: Proportion of ERCPs planned as day cases where patients were recorded as staying overnight

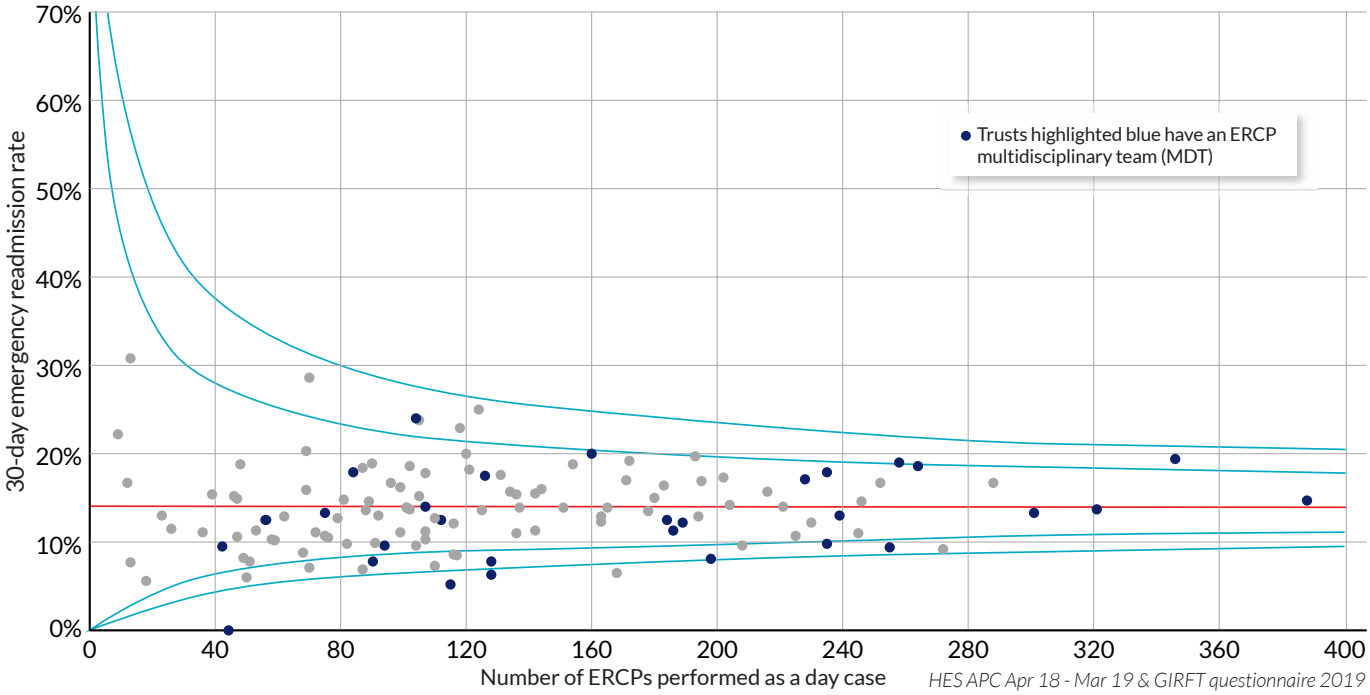


Note to graph: if patients leave the unit after administrative staff leave for the day, it is possible that administrative staff the next day do not correct the date on the patient record. This will lead to the patient being recorded as having stayed overnight or having a length of stay of over 0 days (LoS>0). This may mean the number of planned day cases that actually stayed overnight is lower than shown here.

We also found that relatively few patients develop complications or require readmission (as shown in **Figure 32** below) if their ERCP was carried out as a day case, showing that a day case approach to ERCP is generally safe. However, there was some variation, which underlines the need for patients to be carefully reviewed, for example by an MDT. Some of this variation will be driven by underlying recognised complications of this procedure and the patient's underlying conditions that necessitated the procedure in the first place.

Figure 32 also shows where trusts have an ERCP MDT in place – see above for more on this.

Figure 32: Rate of patients readmitted as an emergency within 30 days of day case ERCP



HES APC Apr 18 - Mar 19 & GIRFT questionnaire 2019

Tracking biliary stents

If a clinician cannot clear all stones from the bile ducts in the first ERCP, they may place a stent (small artificial tube) into the duct to help bile flow. The stent is usually only intended to be temporary and stay in for a few months. The patient will then need to come back for another ERCP to remove or replace the stent.

If a stent is not removed within the recommended timeframe, this can increase the risk of biliary sepsis, which is a life-threatening condition.

We found there is variation in effective surveillance for patients with biliary stents. In our questionnaires we found only 62% of trusts were running a database system to track patients with removable biliary stents. This tracking, carried out by administrative or endoscopy clinical staff, is needed to ensure stents are removed or replaced when necessary, to reduce the risk of biliary sepsis. It should not increase the number of procedures, but rather ensure they are carried out on time and with fewer complications for patients as a result.

Trusts therefore need to ensure they are tracking stents properly and checking that patients have them removed on time. They also need to ensure that ERCP aftercare leaflets highlight the symptoms and dangers of biliary sepsis, and encourage patients to seek help promptly if these symptoms occur. Patients with removable biliary stents should also be informed how to raise the alarm if they do not receive their stent removal appointment when this is due.

Recommendations: ERCP

Recommendation	Actions	Owners	Timescale
15. Ensure Endoscopic Retrograde Cholangio-Pancreatography (ERCP) is performed only when necessary, as day cases where clinically appropriate, in sufficient volumes, and ideally with input from an ERCP multidisciplinary team.	**a** Only perform ERCPs with therapeutic intent – not solely as a diagnostic test. Consider less invasive Magnetic Resonance Cholangio-Pancreatography (MRCPs) or Endoscopic Ultrasound scan (EUS) for diagnosis (in consultation with radiology colleagues to ensure adequate capacity).	Trusts	Ongoing
	b Consider consolidating ERCP services with other centres at Integrated Care System level, especially if some sites are only performing very small numbers.	Trusts, Integrated Care Systems	Within 12 months of publication
	c Monitor data on repeat ERCPs: if a large number are carried out for stone disease, this may indicate the need for further training or consolidation.	Trusts, Integrated Care Systems	Within 18 months of publication
	d Ensure an ERCP MDT is established to review which patients require ERCPs and lower the risk of complications and mortality. This should include ERCP practitioners plus ideally EUS and radiology representatives.	Trusts, networks	Within 18 months of publication
	e Ensure ERCP is performed as a day case, where clinically appropriate.	Trusts	Ongoing
	f Schedule ERCP procedures for morning lists where possible.	Trusts	Ongoing
16. Ensure there is an effective programme in place for tracking and replacement of removable biliary stents.	**a** Ensure adequate tracking processes for biliary stents are in place, to reduce the likelihood that a patient is left with a biliary stent in longer than intended.	Trusts	Within 6 months of publication
	b Ensure discharge paperwork and patient after-care leaflets highlight symptoms of biliary sepsis, how to raise the alarm if these occur, and the importance of contacting the hospital if they do not receive an appointment to remove their stent.	Trusts	Ongoing

5. Luminal gastroenterology

This report has already covered some issues to do with luminal care, especially as part of the endoscopy section. As mentioned above, many luminal gastroenterology problems, including functional conditions such as Irritable Bowel Syndrome (IBS) and other common conditions, including dyspepsia and reflux disease, are primarily dealt with in an outpatient setting. However, HES data is very limited for outpatients – this is an issue that GIRFT is currently investigating. This means that although functional gut conditions are important and represent approximately 40% of gastroenterology problems, these could not be covered in our GIRFT data pack, and so are not included in this report.

In this section, we have therefore focused primarily on Inflammatory Bowel Disease (IBD), which includes ulcerative colitis and Crohn's disease.

As with liver disease, trusts must focus on being proactive first and foremost for patients with IBD: ensuring that patients have access to early diagnosis, support, advice and care to:

- get their disease under control (into remission);
- maintain remission wherever possible;
- promptly manage any exacerbations (flare-ups);
- help avoid complications and emergency admissions that can lead to long-lasting consequences for patients, as well as extra expense for the trust.

Proactive management for patients with IBD will help improve their quality of life, reduce complications, preserve bowel function and reduce the need for surgery such as colectomy (removal of all or part of the large bowel). Greater use of medications for IBD patients to suppress inflammation, such as biologic treatments, has helped to reduce colectomy rates over time, and we were pleased to see that IBD colectomy rates were generally low. However, due to the seriousness of this procedure, we are keen to see these rates reduce even further.

When reading this section, clinicians should also be aware of the following sources of information:

- The comprehensive guidance contained in the *IBD Standards*[81], which were created and are updated by IBD UK, a partnership of patient and professional organisations, and which state what high-quality care should look like at every point of the patient's journey. This website also contains resources to support the standards, including a benchmarking tool and patient survey.
- The BSG's *Consensus guidelines on the management of Inflammatory Bowel Disease in adults*[82], which contains up-to-date and comprehensive guidance on all areas of IBD.
- The information above on *Involving and supporting patients: the role of charities* on page 47.
- The sections on *Supporting self-management* on page 54 and *Sharing decision making about gastroenterology interventions* on page 55, which are particularly relevant to IBD, as it is a chronic condition.

Managing IBD patients proactively

Managing patient flare-ups proactively to prevent emergency admissions

Patients with IBD may have periods of troublesome symptoms and active inflammation, known as flare-ups. At other times their symptoms may improve and their inflammation may be quiet or settle (be quiescent or in remission). Proactive services, such as IBD specialist nurse helplines and flare clinics, can help patients to deal with flare-ups at home or with primary care support.

[81] *https://ibduk.org/ibd-standards*

[82] *www.bsg.org.uk/clinical-resource/bsg-consensus-guidelines-on-the-management-of-inflammatory-bowel-disease-in-adults/*

It is particularly important that patients who identify that they are experiencing a flare-up know how to access specialist care, and are encouraged to do so (patient-initiated follow-up). If a patient having a flare-up is unable to access these support services, they are more likely to end up with an emergency admission or a readmission. **Figure 33** below shows that in some trusts over 20% of IBD patient admissions were as an emergency.

While proactive management may involve radiology resource, which will need to be adequately planned and resourced, in the longer term better patient management of IBD may help to relieve pressure on radiology capacity by reducing the number of flare-ups and complications.

Figure 33: Proportion of IBD patients admitted as an emergency

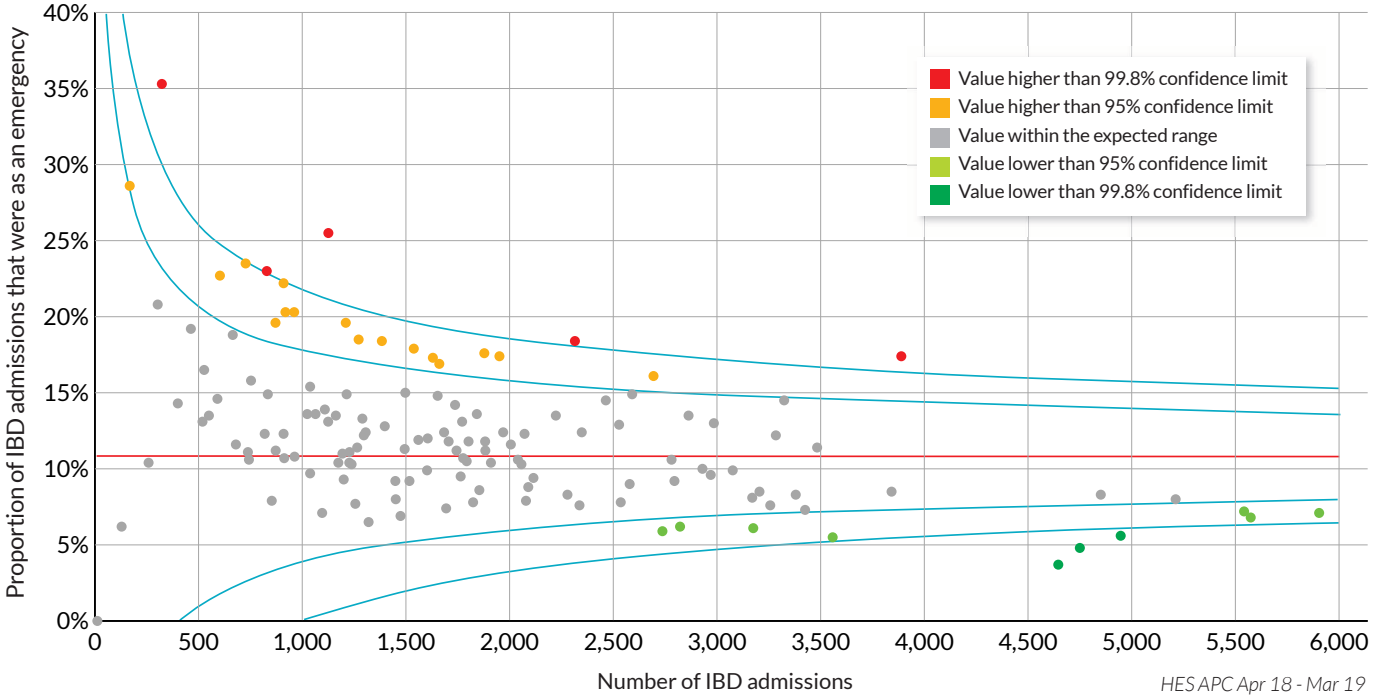


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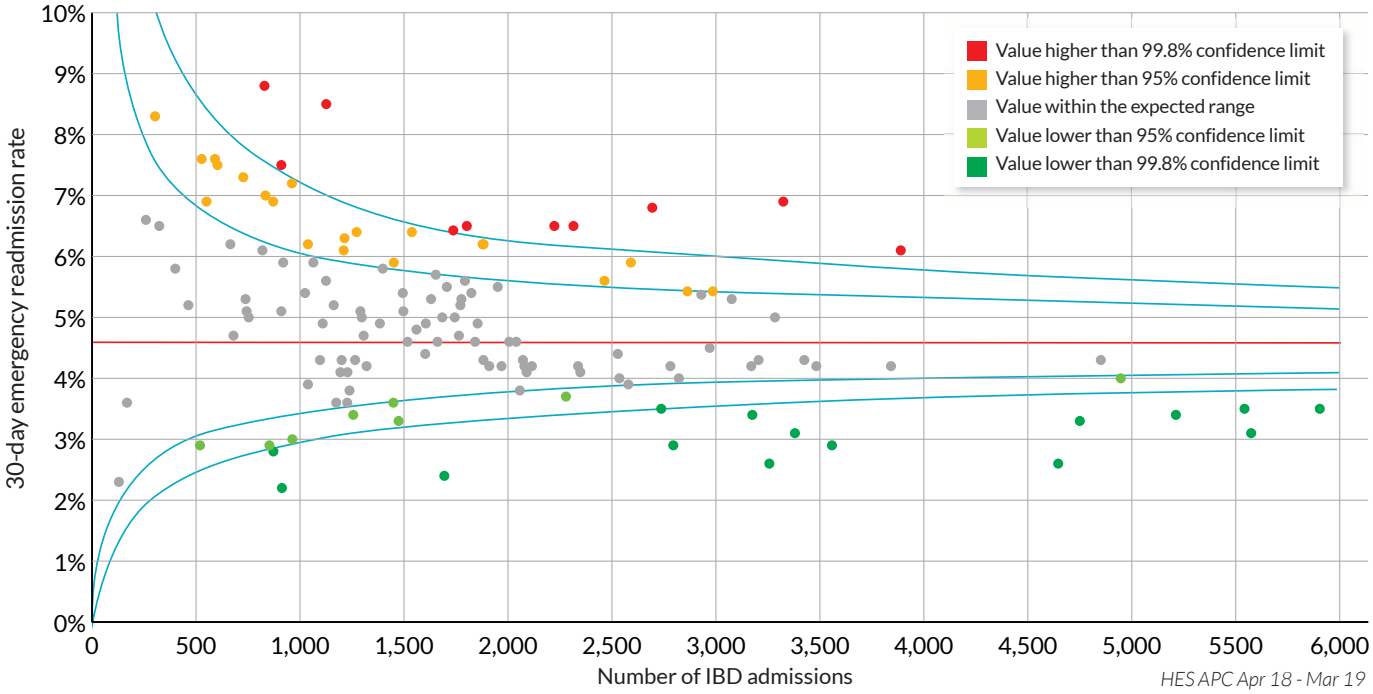
Figure 34 below shows that many trusts are readmitting IBD patients as emergencies, which may suggest the patient was unable to access care in time, or that their problem was not dealt with fully at first admission.

Figure 34: Proportion of patients with IBD readmitted as an emergency within 30 days



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Our questionnaires showed that most trusts (98%) have IBD helplines in place, but the nursing infrastructure surrounding them is variable.

CASE STUDY

Service improvements bring fall in emergency admissions for IBD

Oxford University Hospitals NHS Foundation Trust

Emergency admissions for IBD have reduced significantly as a result of improvements including advanced training, email advice for patients and digital monitoring of symptoms and outcomes.

A low emergency admission rate is recognised as a measure of the effectiveness of an IBD service. Oxford achieved this through a range of measures designed to increase responsiveness to patient needs and build resilience within the unit, including:

- Encouraging consultants and senior clinicians to develop a special interest in IBD, supported by advanced training, adding to unit strengths while remaining part of the wider team.
- An email advice service for patients, managed by specialist nurses.
- Monitoring patient progress online through validated questionnaires on symptoms (daily), quality of life (fortnightly) and outcomes (quarterly).
- Weekly MDT meetings with up to eight related specialties.
- Audited performance targets.
- Integrating and co-locating clinical and research teams.

Results

Following these service improvements, the emergency admission rate for IBD at Oxford has fallen to half the England average. The unit has also shown improvements on key indicators such as length of stay.

CASE STUDY

Improving IBD care through nurse-led services

University College London Hospitals NHS Foundation Trust

An IBD Clinical Nurse Specialist (CNS) team has enhanced the patient experience, while reducing emergency admissions and outpatient did not attend (DNA) rates.

The CNS team is empowered to manage a wide range of IBD services, including:

- the infusion clinic;
- patient advice line;
- outpatient clinics;
- blood monitoring;
- shared care;
- inpatient review;
- homecare prescriptions.

Expertise and decision making are shared, and the team provides cross-cover for annual leave and sickness, ensuring continuity of care.

The nurse-led infusion clinic includes pre-screening, counselling and prescriptions. Nurses ensure that the correct bloods have been taken and drug monitoring completed before infusion, and also manage follow-ups and ongoing medication needs. The service is managed on a daily basis so that any cancellations can be filled at short notice, maximising efficient use of time and minimising DNAs.

The advice line answers more than 400 queries a week from patients, as well as from GPs and Clinical Commissioning Groups (CCGs), and can arrange outpatient blood tests and prescriptions as appropriate. This helps keep patients out of A&E, reducing the need for admissions.

Results

As well as reducing emergency admissions and DNA rates, the CNS team has increased overall efficiency, enabling the service to cope with increasing demand, while improving the patient experience and patient flow. The IBD service has scored highly in outpatient satisfaction surveys.

Managing colitis to reduce surgery

We found that there was variation in the rate of colectomy (removal of part or all of the large bowel) for IBD across trusts, although in general the rate was low.

The increasing use of biologic medicines has led to a decrease in the rates of colectomy for IBD patients. However, although the rates of colectomy are low, it is important that trusts continue to interrogate their colectomy rate, aiming to preserve the bowel where possible, and, where best for the patient, by using proactive management to prevent inflammation.

To manage colitis and preserve the bowel as far as possible, trusts should:

- Diagnose IBD quickly, by ensuring that any new patient referred with suspected IBD, with or without elevated faecal calprotectin results, is seen in an IBD or gastroenterology clinic within four weeks, as stated in the *NICE quality standard QS81 on IBD*[83].
- Continue to monitor and drive down colectomy rates for IBD as low as possible.
- Establish an MDT for IBD, involving pharmacy colleagues in particular, if this is not already in place (we were pleased to note that 94% of trusts do have an IBD MDT in place).
- Where possible, have one WTE dietitian allocated to gastroenterology per 250,000 population, as part of the core IBD team (as recommended in the IBD standards – see also the *Nutrition support* section on page 105).
- Establish an acute severe colitis pathway, and ensure this is used consistently across the trust.
- Ensure the acute severe colitis pathway includes criteria on when to class colitis as acute and severe, and guidance on when to use salvage therapy to reduce the need for surgery. It should also advise on the need for venous thromboembolism (VTE) prophylaxis.

Our questionnaires showed that over three quarters (78%) of trusts have an acute severe colitis pathway in place currently, although these are not always used reliably. To ensure that colectomy rates remain low, and to improve outcomes for patients, we recommend that every trust has an acute severe colitis pathway in place and ensures this is used reliably.

However, it is important to note that the colectomy rate will never reach zero, as some patients may still need colectomies due to uncontrolled IBD, despite optimal medical management. For some patients, surgery may also be a positive choice, and it is important that clinicians discuss all options openly with patients. The importance of shared decision making in these cases is covered in the *IBD Standards*[84].

Recommendations: managing IBD patients proactively

Recommendation	Actions	Owners	Timescale
17. Ensure there is sufficient proactive management for Inflammatory Bowel Disease (IBD) patients, to reduce emergency admissions and the need for surgery.	**a** Ensure new referrals with suspected IBD, with or without elevated faecal calprotectin results, are seen in an IBD or gastroenterology clinic within four weeks.	Trusts	Ongoing
	b Ensure IBD patients can easily access an effective IBD helpline and flare clinics, to reduce the likelihood of emergency admission.	Trusts	Ongoing
	c Ensure there is an acute severe colitis pathway in place and used consistently across the trust, with access to proactive management of inflammation and salvage therapy to reduce the need for surgery.	Trusts	Within 3 months of publication

[83] *www.nice.org.uk/guidance/qs81*
[84] *https://ibduk.org/ibd-standards*

6. Nutrition support

Around 1 in 3 patients admitted to hospital are malnourished or at risk of becoming so[85]. Poor nutrition and hydration not only harm patients' health and wellbeing, but can also reduce their ability to recover, leading to higher numbers of admissions to hospitals and care homes.

Gastroenterologists with an interest in nutrition often work in a senior leadership role with other colleagues, such as dieticians, pharmacists and surgeons, to support and guide the whole hospital in clinical nutrition. The nutrition steering group will decide on policies that affect everything from the staff canteen to feeding babies on the neonatal ward, while the nutrition support team work to help patients who need specific nutrition support. The roles and responsibilities of these two teams are explored below.

Wherever possible and safe, patients should take nutrition by mouth (orally). However, if a patient is unable to do this well enough, they may need nutrition support. This can be provided in two ways:

- Using the gastrointestinal tract – this is called enteral nutrition. A tube is placed into the stomach or small intestine for the nutrition to pass through. Two examples of this are nasogastric (NG) feeding, via a tube passed through the nose into the stomach, and Percutaneous Endoscopic Gastrostomy (PEG) feeding, where a tube is placed through the abdominal wall into the stomach. We looked at PEG feeding as part of the GIRFT process. A PEG tube may be used when the gut is working, but the patient has difficulty with swallowing and there is a risk of food going into the windpipe.
- Avoiding the gastrointestinal tract and using blood circulation instead, by placing a line, generally known as a vascular access device, into a vein – this is called parenteral nutrition. Patients sometimes receive all their nutrition this way, in which case it is called Total Parenteral Nutrition (TPN). TPN is used when food cannot pass through the gut properly (for example if it is blocked or leaking), if the gut cannot absorb nutrients, or if it needs to rest without food passing through (for example after surgery).

The risks of complications increase with each type of nutrition – oral feeding being the lowest risk, followed by enteral nutrition, with parenteral nutrition being the highest risk and generally used only as a last resort.

Good quality nutrition matters: malnutrition and dehydration are both causes and consequences of illness, and so nutrition should be integral to all care pathways. Poor nutrition affects all patients, not just gastroenterology patients – in hospital, in care homes and in the community. If trusts invest more in nutrition support, this should be very cost-effective: improving outcomes for patients, reducing complications and reducing length of stay.

As part of the GIRFT process, we looked at:

- how nutrition support services are staffed at trusts, including the importance of a multidisciplinary approach;
- existing NICE guidelines that trusts may need to focus on;
- complication rates.

Please also see section 7 *Medicines optimisation* for more about ongoing costs of nutrition support products.

The area of nutrition support encompasses a particularly wide range of issues in medicine. In some areas we were unable to access enough data to show variation or provide evidence for recommendations. We focused on key issues during the GIRFT process, concentrating on areas where we were able to find evidence, while noting some other concerns that trusts may wish to investigate themselves – including areas that are covered by existing NICE guidance.

Improving nutrition support infrastructure and identifying patients who need support

Hospitals should have two teams overseeing nutrition in the trust. The nutrition steering group is a multidisciplinary group that oversees policies and procedures to ensure that all patients receive adequate and appropriate nutrition and hydration. The nutrition support team is an MDT that supports the delivery of nutritional support to patients if clinically indicated.

[85] *NHS England (2015) Guidance – Commissioning Excellent Nutrition and Hydration 2015 – 2018 www.england.nhs.uk/wp-content/uploads/2015/10/nut-hyd-guid.pdf*

The role of a nutrition steering group

Nutrition steering groups can improve standards by:

- developing and co-ordinating nutrition support policies;
- agreeing and supervising standards for screening, assessment and monitoring of patients;
- overseeing and monitoring the education and training of staff in nutrition;
- acting on NHS National Patient Safety Alerts (for example relating to nasogastric tube misplacement[86]);
- advising on procurement;
- overseeing and co-ordinating nutrition support wherever it occurs in the hospital;
- raising the profile of nutrition services throughout the hospital, including at board level.

Trusts should review their own complication and infection rates (see *Reducing complications in nutrition support* on page 110), and review team infrastructure where these rates are high.

The role of a nutrition support team

A nutrition support team is an MDT that may include doctors (physicians, surgeons, clinical biochemists, intensive care specialists), nurses, dietitians and pharmacists. Ideally, it should include dedicated nutrition specialist nurses, although this may not always be possible, particularly in smaller trusts.

Whatever its makeup, an effective nutrition support team can:

- make informed judgements about which nutrition support is most appropriate, using the highest risk route (parenteral nutrition) only when absolutely necessary;
- provide expertise to reduce complication rates from the provision of nutrition support;
- upskill ward nurses to ensure strict care of vascular access devices, especially where dedicated vascular access teams are not in place.

We found that the provision of nutrition support varied across trusts. Most trusts had some form of nutrition support team, but not all. The makeup of the teams also varied, especially the number of dedicated nutrition specialist nurses. We also saw variation in the use of a nutrition steering group, and the number of consultant-led nutrition ward rounds. Specifically:

- 16.7% of trusts had no nutrition support team at all;
- 25% of trusts had no dedicated nutrition specialist nurses;
- 33% of trusts had only up to one full-time equivalent nutrition specialist nurse.

As **Figure 21: Types of gastroenterology specialist nurse (Whole Time Equivalents)** on page 79 also shows: only 9% of gastroenterology specialist nurses (WTEs) were nutrition specialist nurses, and only 2% were PEG nurses. However, *NICE clinical guideline CG32 on nutrition support for adults*[87] states that all acute hospital trusts should employ at least one nutrition specialist nurse. As mentioned when discussing this figure, we recognise these figures may be under-representative as some nurses involved in clinical nutrition may not be employed by the gastroenterology department. The figures also do not account for extended roles within dietetics or pharmacy.

As well as our questionnaire findings, deep-dive discussions revealed that many hospitals did not have consultant-led ward rounds on every acute site looking after patients needing nutrition support. Although this is not mandated by NICE, the use of a multidisciplinary approach is recommended. We recommend that at least some ward rounds are consultant-led, in order to ensure quality nutrition support throughout the hospital.

[86] *NHS England (2016) Patient safety alert: nasogastric tube misplacement: continuing risk of death and severe harm www.england.nhs.uk/publication/patient-safety-alert-nasogastric-tube-misplacement-continuing-risk-of-death-and-severe-harm/*

[87] *www.nice.org.uk/guidance/cg32*

CASE STUDY

A multidisciplinary approach to improving PEG, especially for patients with motor neurone disease

South Tees Hospitals NHS Foundation Trust

A multidisciplinary approach to PEG insertion has led to a low rate of complications and lower than average mortality.

The trust set up their PEG MDT to comply with BSG guidance on PEG insertion, which recommends a multidisciplinary approach, as well as in response to National Patient Safety Agenda (NPSA) alerts highlighting gaps in out-of-hours care and poor recognition of serious complications.

The MDT, which meets weekly, includes three consultant gastroenterologists, a specialist PEG nurse, a dietician, a speech and language therapist and a gastroenterology registrar. As well as conducting detailed case reviews, it has initiated improvements including:

- A streamlined referral process with an electronic PEG referral form, which has enhanced communication with stakeholder groups, including Ear, Nose and Throat (ENT) and neurology, the biggest referring departments for PEG.
- Appointment of an extra dedicated PEG nurse to provide round-the-clock cover.
- Six-monthly audits of outcome data including 30-day mortality and 8-day readmission.

In 2018, an audit indicated a high rate of respiratory complications for patients with motor neurone disease (MND). The MDT addressed this by developing a traffic light triage system and a transnasal route for direct PEG insertion in selected high-risk patients, supported by a specialist MND nurse who can administer non-invasive ventilation if needed.

Results

Since these changes for MND patients, no further respiratory complications have been reported. Complication rates are low in general. The trust's 30-day all-cause mortality rate for PEG has been below the England average of 10% for several years.

Identifying patients who need nutrition support

In line with *NICE clinical guideline CG32 on nutrition support for adults*[88], clinicians should screen all patients for malnutrition, or the risk of malnutrition, on admission, and then weekly for inpatients.

Trusts must ensure that they are carrying out this screening consistently using a validated screening tool to ensure that patients are provided with adequate and appropriate nutrition support.

The *Malnutrition Universal Screening Tool* ('MUST©') is most commonly used to carry out this screen. As part of our questionnaire sent to trusts, we asked for their MUST score compliance rates. We found that the average compliance scores had reduced from 82% in 2017/18 to 80% in 2018/19. We would expect these compliance scores to be closer to 100%, and therefore suggest that trusts focus on this as a key area for improvement.

[88] *www.nice.org.uk/guidance/cg32*

Recommendations: Improving nutrition support infrastructure and identifying patients who need support

Recommendation	Actions	Owners	Timescale
18. Review nutrition support infrastructure and establish nutrition support teams and steering groups as outlined in *NICE clinical guideline CG32 on nutrition support for adults*[89].	**a** Establish teams with dedicated nutrition specialist nurses – including recruitment of nutrition specialist nurses.	Trusts	Within 12 months of publication
	b Establish nutrition steering groups.	Trusts	Within 12 months of publication
	c Establish consultant-led nutrition ward rounds where possible.	Trusts	Within 12 months of publication
	d Ensure patients are screened in line with *NICE clinical guideline CG32 on nutrition support for adults*[90].	Trusts	Ongoing
	e Consider creating or engaging with regional networks for nutrition support to allow clinicians to share best practice, including creating specialist centres if appropriate.	Trusts, NHS England and NHS Improvement	Within 12 months of nutrition networks being established

[89] *www.nice.org.uk/guidance/cg32*
[90] *www.nice.org.uk/guidance/cg32*

Preventing complications in nutrition support

We found variation in complication rates for PEG and TPN nutrition support services. However, for both services, HES data is limited.

Both PEG and TPN carry a relatively high risk of complication. Both can lead to a wide range of complications, including bleeding, infection around the point where a vascular access device or a PEG tube is inserted, or blood infections. Complications are very distressing for the patient and can become serious or life-threatening – for example, PEG can lead to puncture of other abdominal organs, and both PEG and TPN can lead to sepsis.

The risk of Catheter Related Blood Stream Infections (CRBSIs – sometimes known as line infections) increases with the duration of nutrition support, and some patients can unfortunately experience repeated infections. However, CRBSIs are largely avoidable with strict, high-quality care of the vascular access device.

Another potential complication, misplacement of nasogastric (NG) tubes, is considered a 'never event' – an event that should never happen. There have been several National Patient Safety Agency (NPSA) alerts to do with NG tube misplacement, dating back to 2005. Between April and December 2018 there were a total of 322 'never events' reported to the NHS in England, of which 20 related to misplaced NG tubes; we therefore did not have enough data to analyse these events at provider level. However, as part of our deep dives, we provided each organisation with the number of NG tube never events that had occurred locally during the GIRFT review period, and suggested they review their practice to identify potential areas of improvement.

HES data limitations affecting reporting of complication rates

Limitations in HES data affected our findings in both PEG and TPN.

For PEG complications, we were limited by the fact that HES data only relates to admissions or episodes of care: we cannot be certain that these are a complication of the PEG procedure itself.

For TPN complications, we looked at CRBSIs. According to national guidance, nutrition services should monitor these by looking at the number of CRBSIs per 1,000 days of vascular access device use. However, although trusts may monitor this internally, this information cannot currently be found in HES, as TPN is only funded (and therefore only coded for in HES) for patients who have been on TPN for 14 days or more in hospital, or were already on home TPN before being admitted to hospital. HES data also does not show how long the patient has been using the TPN vascular access device for. As of 1 April 2020, there has been a welcome change in the coding standard which means that TPN provision can now be coded to inform payment regardless of the number of days the patient has been on it, rather than only when the patient has been on it for 14 days or more.

Due to the limitations in HES data, trusts need to ensure they are using their own reviewing and recording system to ensure they keep track of PEG complications and 30-day mortality, and CRBSIs. According to the responses confirmed by trusts in our questionnaires, only 56.8% of trusts measure their 30-day mortality rate for PEG insertion, and only 38.6% measure their CRBSI rate.

Variation in PEG complication rates

We found that complication rates for PEG vary across trusts (as shown in HES data). 30-day all-cause mortality for PEG varied from 0% up to 40%, with a national average of 10.39%. This data included deaths in the community as well as in hospital.

The complication rate for PEG ranged from 3% to 47%, with a national average of 18.69%.

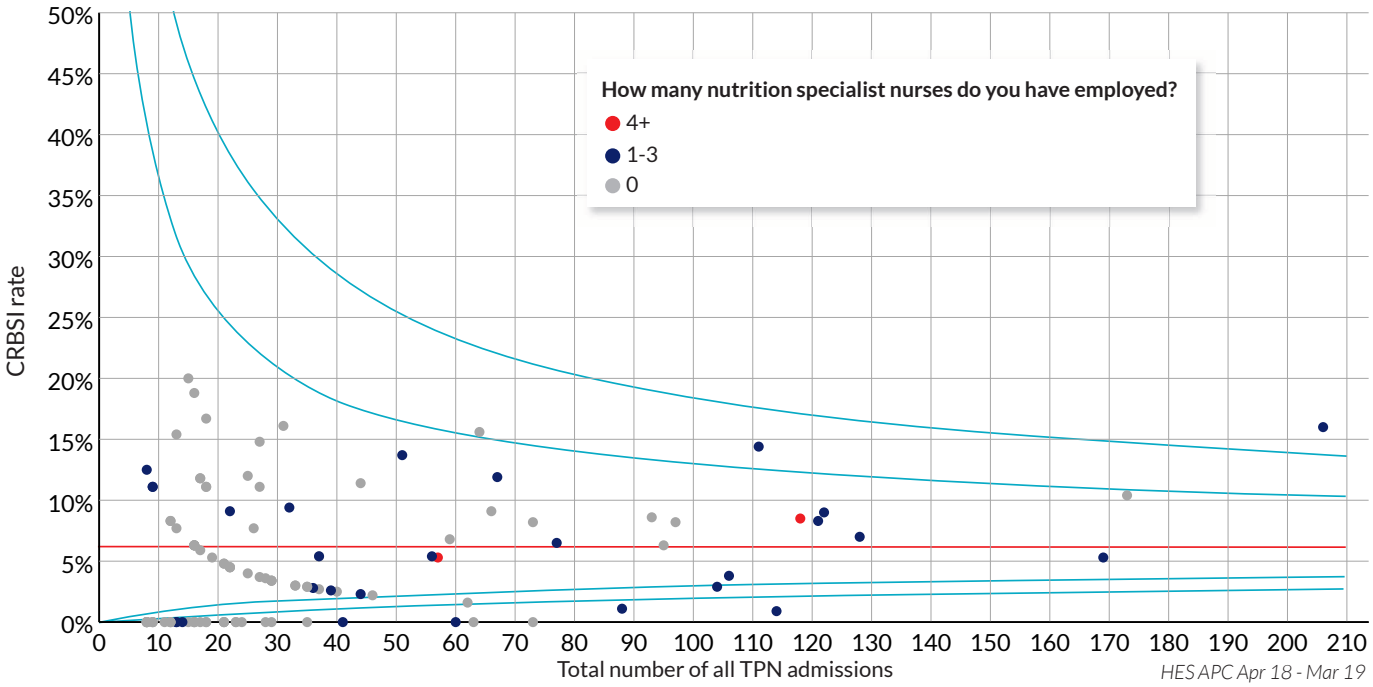
These figures reflect the limitations in HES data noted above.

Variation in CRBSI rates

CRBSI rates are an important quality metric for nutrition services. We found that rates vary across trusts (as shown in HES data).

Evidence on CRBSI rates at the time we conducted our visits was limited, due to the limitations in HES data noted above. Nevertheless, **Figure 35** below shows that in some trusts CRBSI rates recorded in HES are higher than 15%. This may in part be related to the variation in nutrition support teams and nutrition specialist nurse provision mentioned above. This was noted in our GIRFT questionnaire and on our deep-dive visits to trusts.

Figure 35: Proportion of Total Parenteral Nutrition admissions with a CRBSI



Reducing complications in nutrition support

As well as establishing a nutrition service infrastructure, as described above, trusts can seek to reduce complication rates in nutrition support by:

- Using dedicated vascular access nurses or nutrition specialist nurses to look after vascular access devices (where this is possible for the trust).
- Ensuring ward nurses are upskilled to improve care of vascular access devices – this is particularly important as in some of the outliers in **Figure 35** above, infections were thought to have been occurring outside of the intestinal failure or nutrition unit, in regular wards with non-specialist nurses.
- Co-locating patients who need parenteral nutrition support in a dedicated area of a ward or nutrition unit where practical. This can also help with upskilling ward nurses and sharing best practice.

Recommendations: Preventing complication in nutrition support

Recommendation	Actions	Owners	Timescale
19. Monitor complication rates across nutrition support services, and implement measures to reduce rates.	**a** Ensure Percutaneous Endoscopic Gastrostomy (PEG) 30-day mortality rates and Total Parenteral Nutrition (TPN) Catheter Related Blood Stream Infection (CRBSI) rates are carefully recorded and monitored, and put measures in place as needed to ensure correct case selection and share learning, aiming to reduce rates.	Trusts	Progress to be made within 6 months of publication
	b Aim to use appropriately trained staff to look after TPN vascular access devices: this could be upskilled ward nurses (see below), vascular access nurses, dedicated nutrition specialist nurses or other allied health professionals.	Trusts	Within 12 months of publication
	c Upskill ward nurses in optimal vascular access device care, especially where dedicated vascular access teams are not in place.	Trusts	Within 18 months of publication
	d Consider co-locating patients needing parenteral nutrition in a dedicated area or unit where practical.	Trusts	Within 12 months of publication

7. Medicines optimisation

Medicines play a significant part of care in many specialties, and each specialty needs to focus on the clinical choices it makes based on evidence-based guidance and national or local commissioning policy.

A clinician's choice of medicine must be evidence-based above all. They will consider the cost of medicines, but also the wider impact of medicines on patients and their life outside the hospital. However, to ensure the NHS can continue providing the right care for as many patients as possible, clinicians must also identify whether they can achieve a similar result for their patient at a lower cost.

Funding for many medicines, especially high-cost products, is agreed either with Clinical Commissioning Groups (CCGs) or with NHS England and NHS Improvement's Specialised Commissioning team, depending on the medicines involved. Some of these high-cost medicines are commonly used in gastroenterology. For example:

- Biologic medicines, used to treat patients with Inflammatory Bowel Disease (IBD), are funded via local CCG commissioning (see below).
- Total Parenteral Nutrition lasting more than 14 days is funded by national specialised commissioning.

The use of these high-cost medicines – some of which have serious side-effects or complex delivery mechanisms – means that the relationship between gastroenterology and pharmacy is, and needs to remain, particularly strong.

NHS England and NHS Improvement monitor a range of medicines using their Model Hospital Top 10 Medicines dashboard to help trusts focus on cost-effective medicines, and this includes a range of gastroenterology medicines.

Each trust can access information on high-cost medicines. However, this reporting becomes more difficult when developing national benchmarking as used in the GIRFT process, as local differences in how trusts compile and report data can make comparison difficult or impossible. For gastroenterology, a trust's top ten spend may include very expensive medicines, even if they are not used for very many patients (such as drugs to clear viral hepatitis infection), as well as relatively cheap medicines that are used very frequently (for example bowel preparation medicine for colonoscopy).

NHS England and NHS Improvement are supporting a national programme to drive the implementation of Electronic Prescribing and Medicines Administration systems (EPMA). This has increased EPMA system coverage from 19% to 69% of trusts. As more trusts adopt EPMA systems, patient level prescribing data will be collected to provide more information for programmes such as GIRFT in future years.

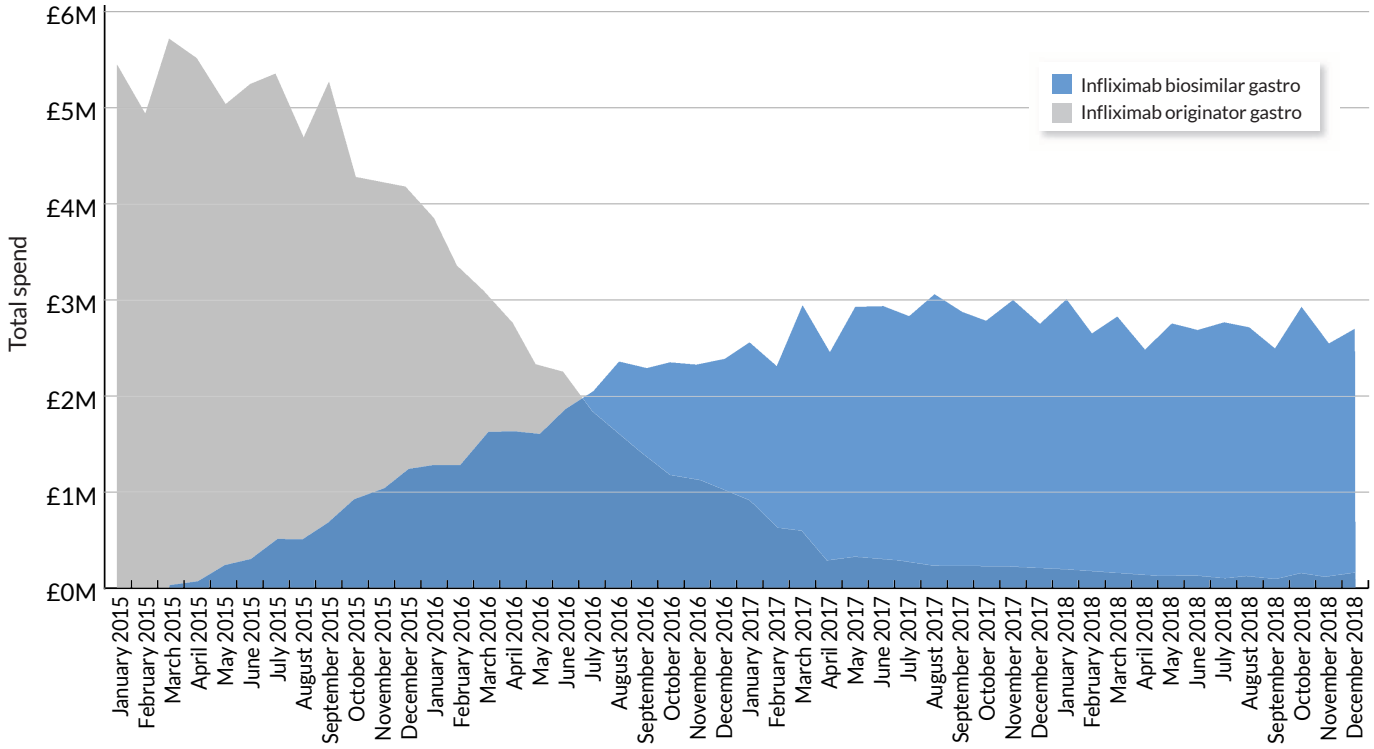
However, at the point we created our data pack for each trust, we were unable to include data on their individual top ten spend for gastroenterology medicines, as the trusts differed too greatly in terms of size and services. Instead, we looked nationally at the top ten medicines for gastroenterology by spend, and then compared spend data for each trust against this top ten.

Switching from biologic medicines to biosimilars

Biologic medicines represent some of the most expensive medicines that the NHS uses. However, for many biologic medicines there is a lower-cost biosimilar medicine that is the same in terms of efficacy and safety as the original medicine. These offer a real cost-saving opportunity, without affecting the quality of the patient's care.

In our review of medicines, we looked at how trusts had switched from one common biologic medicine, infliximab (Remicade™) to its biosimilars.

Figure 36: Uptake of infliximab biologic vs biosimilar



Source: Rx-Info Define© Jan 2015-Dec 2018

Although almost all trusts have switched to biosimilar Infliximab, the switch was not as fast as it could have been. This was largely because the medicines were specially commissioned: this meant that trusts had to bear the costs of switching (for example staffing and administrative costs involved in discussing the drug with patients, educating them about the reasons for changing treatment, and gaining their agreement) while the savings made went back to primary care.

Some trusts became early adopters of this biosimilar switch by managing to negotiate a 'gain-share', where the financial savings from switching to a biosimilar could be shared between providers and commissioners. This helped to offset the staffing and administrative costs to the trust, for example allowing them to use the money to employ an additional IBD specialist nurse or pharmacist. However, many trusts did not manage to secure a gain-share: these trusts were therefore much slower to switch to biosimilar Infliximab, resulting in lower cost savings for the NHS.

The gain-share system has since been replaced, and better, whole-system incentives put in place. This has resulted in a dramatic increase in the speed of switching to biosimilars nationally, leading to bigger cost savings. For example, switching from the original biologic version of adalimumab (Humira™) to the biosimilar version had saved the NHS £300m by the start of 2020. This initiative will be covered in more detail in the GIRFT rheumatology national report, as biologic medicines are used extensively in rheumatic conditions such as rheumatoid arthritis.

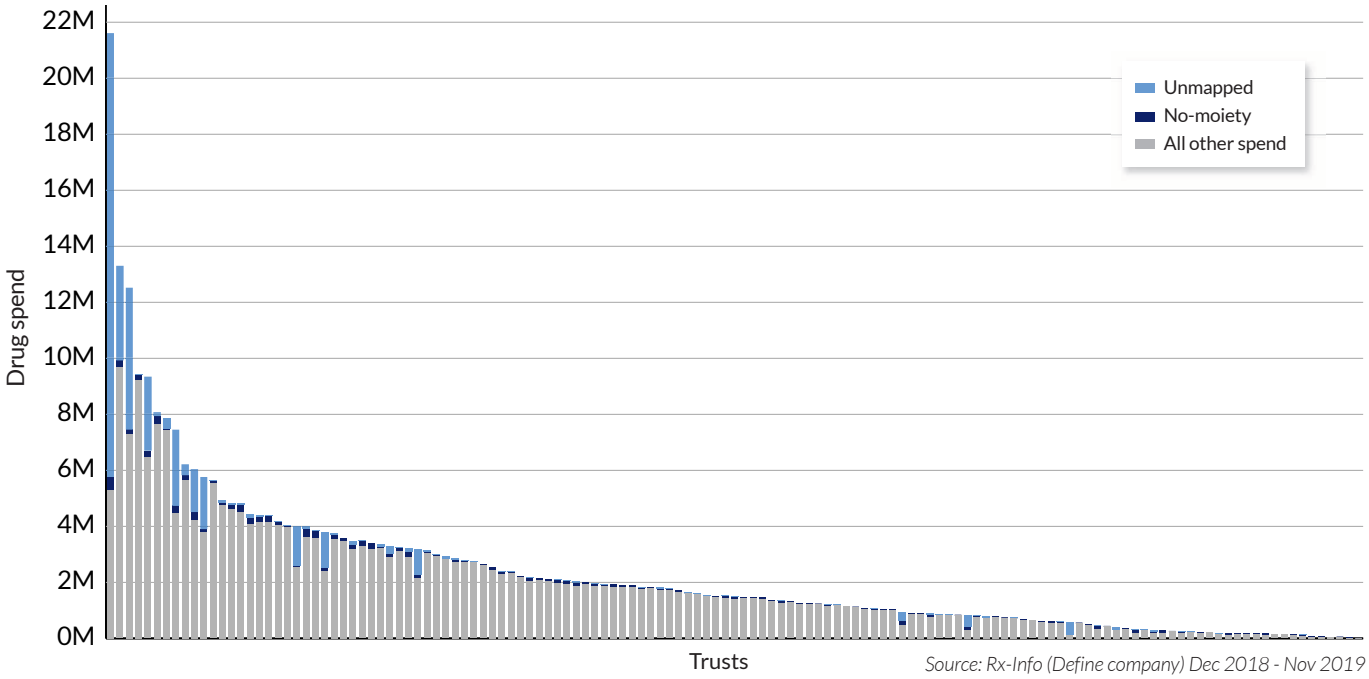
Understanding medicine spend

From our analysis, it was clear that the two biggest spends were on biologic treatment for IBD, and medicines to clear viral hepatitis infections. However, there were also two other categories of medicine that appeared in the top ten medicine spend for gastroenterology: 'unmapped' and 'no-moiety' medicines. We therefore investigated what these two categories referred to:

- Unmapped medicines: it is still not clear what these are. In our deep-dive visits, some trusts thought that these may be Total Parenteral Nutrition bags of nutritional fluid, but this requires further exploration. **Figure 37** below shows that some trusts have very high levels of unmapped spending on medicine, with the most extreme example having nearly £16m out of £22m spend in gastroenterology 'unmapped'.
- No-moiety medicines: it is expected that these are combinations of medicines – for example two different medicines given together as an infusion.

Trusts need to undertake more work, working closely with pharmacy colleagues, to understand what these drug spends actually are and why these categories are being used when recording medicines in Define©.

Figure 37: Total spend on drugs for gastroenterology and hepatology, by trust



Source: Rx-Info (Define company) Dec 2018 - Nov 2019

Considering ongoing costs in nutritional support products

Using standard vs bespoke Total Parenteral Nutrition (TPN) formulations

When prescribing TPN formulations, clinicians should be aware of the differences in cost between bespoke and standard formulations – bespoke formulations are often far more expensive. This is one area where a Nutrition Support Team or an MDT that includes pharmacy representatives can help to guide support.

We were unable to investigate this further on our visits due to a lack of available data, but suggest that trusts evaluate their internal data to see if there are areas for TPN optimisation. Further advice and information about TPN prescribing is likely to be produced by the Intestinal Failure and Medicines Optimisations Clinical Cells of NHS England and NHS Improvement.

Managing discharge to primary care

For patients who are malnourished, or at risk of malnutrition, Oral Nutritional Supplements (ONS) are a cost-effective intervention. However, these products are often significantly more expensive in the primary care setting, and if used inappropriately, can lead to a significant cost to the healthcare economy.

Many trusts already work closely with primary care providers and/or community teams to ensure that ONS are prescribed and used appropriately for patients.

This was not an area we were able to look at specifically as part of the GIRFT process, but we are aware of potential issues in this area. There is further information about appropriate ONS prescribing at www.malnutritionpathway.co.uk.

For more on nutrition support, see section 6 *Nutrition support* on page 105.

Recommendation: Medicines optimisation

Recommendation	Actions	Owners	Timescale
20. Work with pharmacy colleagues to carry out further investigation into any medicines recorded as unmapped or no-moiety medicines.		Trusts	Within 6 months of publication

8. Improving future gastroenterology services

Over the past decade there have been several initiatives set up to support the improvement of gastroenterology services, share learning and assist gastroenterology and endoscopy departments. We have already mentioned several well-established programmes, such as JAG for endoscopy, and we have given a brief reminder of some of the current initiatives here.

The use of some initiatives has tailed off, and systems have been dismantled, due to challenges in maintaining the quality and accuracy of information. One such initiative was JAG's Knowledge Management System (KMS), which was a searchable online system linking solutions directly to problems, and allowing information (such as policies, guidelines, audit tools and presentations) to be uploaded, shared and downloaded – helping endoscopy units to support and learn from each other.

The loss of initiatives like the KMS has led to duplication of work between gastroenterology departments – for example, on our visits we found multiple sites working up the same business case proposals, or very similar job specifications.

While we used our visits as an opportunity to talk about quality initiatives and share useful documentation with trusts, sharing this kind of material more generally, and in a format that can easily be updated, will bring obvious benefits for trusts nationally. This will be more successful if the material is hosted by a recognised authority, such as JAG or GIRFT itself.

Making use of existing quality programmes and support

The BSG

Trusts may find it useful to refer to BSG guidance and support. The BSG regularly creates and updates guidelines, guidance, care bundles, position statements and workforce reports, which are hosted on the BSG website. Trusts may also wish to share success stories with the BSG, which are regularly published to share best practice.

www.bsg.org.uk/

The BSG RCP Quality Improvement framework

The BSG RCP quality improvement group have developed a Quality Improvement framework on 'what a good gastroenterology and hepatology service should look like'. This followed extensive involvement of key stakeholders, including patients. The framework is aligned to the GIRFT programme, Care Quality Commission and Keogh seven-day service standards, along with established quality assurance programmes such as JAG and Improving Quality in Liver Services (IQILS – see below). The framework is currently being piloted in trusts throughout the four nations. It is based on five domains (and 17 standards) or patient-centred 'gets'. These are:

- Get in (access/timeliness);
- Get diagnosed (diagnostics);
- Get fixed (interventions);
- Get out (REACT – re-enablement, ambulatory care and transition);
- Get on (monitoring, surveillance and secondary prevention).

www.bsg.org.uk/strategic-areas/clinical/quality-improvement/

Improving Quality in Liver Services (IQILS)

The IQILS initiative was launched by the Royal College of Physicians in 2017. It is an accreditation programme that seeks to improve standards in treating liver disease. Trusts can apply for accreditation if they achieve certain criteria.

It is supported by the British Association for the Study of the Liver (BASL) and BSG, and works in partnership with community, professional bodies, societies and patient groups. As stated in recommendation 11b, GIRFT recommends trusts should register and work towards IQILS accreditation.

www.iqils.org/

The IBD Standards

As mentioned throughout the report, the IBD Standards, created by the IBD UK partnership of organisations, provide a wealth of information and guidance.

The standards are supported by:

- the IBD Benchmarking Tool, which can help to check local service development planning against the standards, based on service and patient assessments;
- the Service Communications Toolkit, which is a resource to help services use these results in quality improvement planning;
- IBD UK are also hoping to run quality improvement workshops in 2021.

Sharing useful documentation

Reinstating a Knowledge Management System (KMS) or best practice hub

During our visits, we saw there was a clear need for a knowledge management system, bringing together operational policies, example pathways and business cases for trusts to access as needed.

At the moment, endoscopy services in trusts upload multiple documents to the JAG website, as part of their JAG accreditation process. However, these really useful documents (such as operational policies, standard operating procedures, pathways, protocols, business cases, information leaflets, guidelines etc) ideally need to be made more accessible for trusts to allow sharing of best practice and avoid duplication of effort. Currently trusts waste time starting documents from scratch that other trusts have already developed, where they could simply adapt another trust's document to be appropriate for their needs and to improve patient care.

There is a need for a knowledge and information sharing hub for gastroenterology services to enable continued quality improvement. We plan to develop a GIRFT best practice library and learning platform which could be used to do this, alongside existing resource hubs hosted by the BSG, JAG and other professional bodies.

Using the Joint Advisory Group's National Endoscopy Database

Using compliant software

Currently, not all trusts use an Endoscopy Reporting System that is compliant with the JAG's National Endoscopy Database (NED) upload. This is a missed opportunity, as the database can bring together rich data from across the country to provide a good national picture of services.

All trusts use an Endoscopy Reporting Software (ERS) system internally to create endoscopy reports for patients, GPs and referrers, as well as to provide key performance indicators (KPIs) for endoscopists. However, not all versions of these ERS systems are NED compliant, so data from non-compliant systems will not be automatically uploaded to NED.

As well as informing a national picture of best practice, using NED-compliant software may enable more clinicians to check their performance in real time, rather than waiting to receive six-monthly KPI reports from their endoscopy lead or training lead. NED data can also allow trusts to compare their activity with both national and comparator trends.

Recommendations: Sharing useful documentation and information

Recommendation	Actions	Owners	Timescale
21. (Re)introduce and use initiatives and systems to share knowledge, resources and best practice to improve gastroenterology and endoscopy services.	**a** Sign up to or seek accreditation from existing quality initiatives where possible.	Trusts	Ongoing
	b Co-ordinate the sharing of best practice and business cases for gastroenterology and endoscopy services by establishing a GIRFT best practice library and learning platform.	GIRFT	Within 6 months of publication
	c Use an Endoscopy Reporting System (ERS) that complies with National Endoscopy Database (NED) criteria to inform a national picture of clinical practice.	Trusts	Within 12 months of publication

9. Procurement

General procurement variation

Gastroenterology is a multi-organ specialty, and endoscopy is a high-volume diagnostic and therapeutic service. There are huge costs involved in procuring the extensive range of equipment involved in this specialty. There will inevitably be significant variation in costs between trusts, particularly with endoscopy equipment and consumables. This will be true for expensive items (such as stents) down to relatively cheap consumables (such as mouth guards). There needs to be more transparency of pricing and costs. This needs to be explored further.

In 2016 NHS Improvement mandated all trusts to submit their monthly purchase order data to a central database: the NHS Spend Comparison Service (SCS). This is the first time a single national dataset of procurement information has been established for the NHS. Since that time the GIRFT programme has been analysing this data to better understand the variation in products and brands used, and prices paid across NHS trusts. This analysis has been a feature of previous GIRFT reports with examples of variation in the number of brands used by clinicians.

It has been noted that the variation can lead to compromises in patient safety and can add significant costs to the NHS Supply Chain. Addressing variation therefore would have the potential to improve safety and efficacy and provide a potential opportunity to secure better deals and improved value for money for trusts.

Reducing unwarranted variation and improving value for money

To help, GIRFT has established a programme to root out unwarranted variation, improve the evidence base to enable better decision-making, accelerate adoption of new proven technologies, and improve overall value for money by reducing supply chain costs. The GIRFT Clinical Technology Optimisation programme has been working with GIRFT Clinical Leads to examine the data and evidence that support products and, in some cases, national Clinical Technology Advisory Panels have been established with leading clinicians from the specialty to address safety, efficacy, innovation and value – with the objective of providing better information to clinicians and procurement professionals across the NHS.

GIRFT has also been working with the new NHS operating model for NHS procurement, including the new Category Towers (groups of products or services used by NHS procurement, for example medical equipment), to develop plans for helping trusts and clinicians to address variation and improve value for money.

Furthermore, an issue is knowing whether different brands have clinical impacts, and to assess that NHS England and NHS Improvement has launched 'Scan4Safety[91]' (2020) in which individual products can be traced to individual clinicians. We are looking at the feasibility of creating links between the National Clinical Improvement Programme[92] and Scan4Safety to assist in identifying the efficacy of different brands and, perhaps most importantly, to allow tracking of new implants or procedures across the NHS.

We recommend that providers adopt the GIRFT three-point strategy to improve procurement of devices and consumables.

[91] *www.scan4safety.nhs.uk/*

[92] *https://gettingitrightfirsttime.co.uk/associated-projects/ncip/*

Recommendations: general procurement

Recommendation	Actions	Owners	Timescale
22. Enable improved procurement of devices and consumables through cost and pricing transparency, aggregation and consolidation, and by sharing best practice.	**a** Use sources of procurement data, such as Spend Comparison Services and relevant clinical data, to identify optimum value for money procurement choices, considering both outcomes and cost/price.	Trusts	Within 6 months of publication
	b Identify opportunities for improved value for money, including the development of benchmarks and specifications. Locate sources of best practice and procurement excellence, identifying factors that lead to the most favourable procurement outcomes.	GIRFT	Ongoing
	c Use Category Towers to benchmark and evaluate products and seek to rationalise and aggregate demand with other trusts to secure lower prices and supply chain costs.	Trusts	Within 12 months of publication

Using drinking water in endoscopy

When performing endoscopies, endoscopists may currently flush sterile water through the endoscope into the patient's stomach or bowel to help clear debris and improve visibility. As the gastrointestinal tract is not a sterile field (and drinking water is regularly passed through it), this is unnecessary.

The use of sterile water in endoscopy is based on the three-hour rule and bacterial growth curve. This rule is also used to cover endoscopes following decontamination, if these are not stored in an appropriate way. However, drinking water is allowed for manual flushing (via single use syringes) of endoscopes during procedures, as the receptacle, water and syringes are routinely changed between patients. Trusts could reduce their sterile water costs in endoscopy by using drinking water (so long as it is of suitable quality) for manual flushes (via single use syringes) of endoscopes during procedures. This would also reduce the number of plastic bottles that have to be physically brought into the endoscopy unit and then disposed of, by recycling or landfill. This would therefore be financially beneficial for the trust, and better for the environment (potentially as part of progress towards 'green endoscopy', which is a growing area of interest[93]).

We have checked with the BSG and JAG that they agreed with this approach prior to our deep-dive visits. However, trusts will need to double-check with their estates colleagues about the quality of the tap water, and with manufacturer warranties for their endoscopy equipment.

Our questionnaires found that trusts spent on average £4,875 on sterile water per year in endoscopy; spend varied hugely from £67 per year to £30,639 per year. We expect usage could safely be halved and understand from our deep-dive discussions that this is already happening in some places.

Recommendations: Using non-sterile water in endoscopy

Recommendation	Actions	Owners	Timescale
23. Use drinking water instead of bottled sterile water for manual flushing (via single use syringes) of scopes during endoscopy procedures, provided receptacle/water and syringes are routinely changed between patients.		Trusts	Within 6 months of publication

[93] *www.thelancet.com/pdfs/journals/langas/PIIS2468-1253(20)30157-6.pdf*

10. Reducing the impact of litigation

As well as addressing variation in clinical practice, each GIRFT review assesses the impact and causes of litigation.

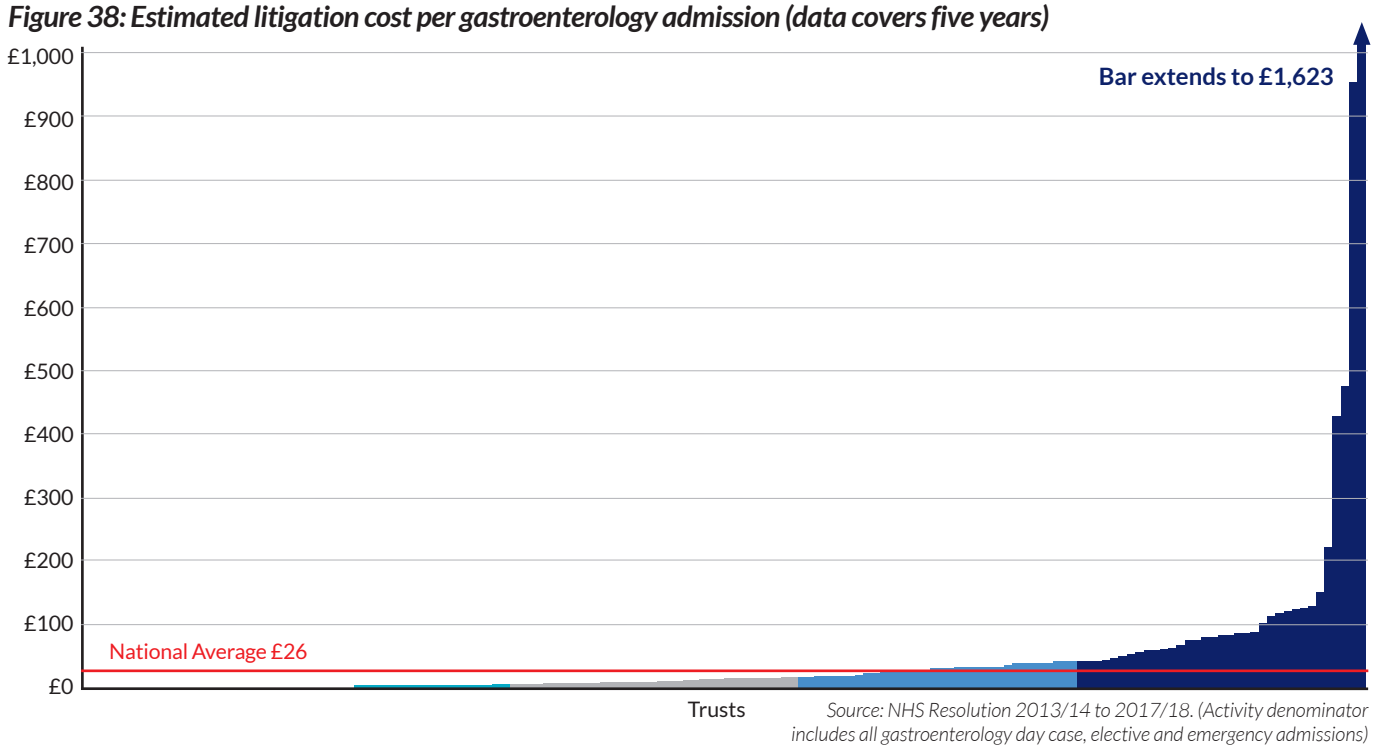
Giving providers and clinical staff the opportunity to learn from best practice, claims, complaints, Serious Untoward Incidents (SUIs) / Serious Incidents (SIs) including never events / Patient Safety Incidents (PSIs) and inquests will help improve patient care, reduce length of stay, and reduce the frequency of incidents. In turn this will lead to reduced costs, both in terms of litigation itself and managing complications related to incidents.

It was clear during GIRFT visits that many providers had little knowledge of the claims against them. This includes some with high litigation costs per admission, as well as those at the low end. As a consequence, there is an opportunity to learn from the claims to inform future practice. Further work is needed at both a local and national level to analyse claims to maximise this opportunity to improve patient care.

Variation in average litigation costs

Data obtained from NHS Resolution shows that clinical negligence claim costs in gastroenterology were estimated to have risen from £27.4 million to £46.6 million per year over the last five years. The estimated total costs include those costs already paid and the outstanding reserve values held against claims still open by NHS Resolution. We found the national average estimated cost of litigation per gastroenterology admission was £26. There are noticeable differences between providers: the best performing provider is estimated to cost £0 per admission, while at the other end of the scale, one provider is expected to generate an average of £1,623 of litigation costs per admission.

Figure 38: Estimated litigation cost per gastroenterology admission (data covers five years)



Source: NHS Resolution 2013/14 to 2017/18. (Activity denominator includes all gastroenterology day case, elective and emergency admissions)

Claims trends and causes

Trends

Gastroenterology is the tenth highest specialty in terms of numbers of claims during the financial years 2013/14 – 2017/18. As gastroenterology practice involves several procedures and interventions, this finding is not unexpected. However, please note that claims can sometimes be misattributed: we understand from deep-dive discussions that some gastroenterology claims actually relate to gastrointestinal surgery. To address this, trusts should ensure that all claims are allocated to the correct specialty and correct any conflation (see recommendation 24c).

Table 3: Trends in volume and cost of medical negligence claims against gastroenterology

Year of notification	No. of claims	% change in no.	Cost of claims (£)	% change in cost
2013/14	215	-	27.4 million	-
2014/15	252	17%	28.1 million	2%
2015/16	265	5%	38.4 million	37%
2016/17	246	-7%	38.6 million	0%
2017/18	260	6%	46.6 million	21%
Grand Total	**1238**	**-**	**179.1 million**	**-**

Source: NHS Resolution 2013/14 to 2017/18

Although there is not a substantial increase in the number of claims in the specialty over the five-year period, there is a sizeable increase in the costs associated with litigation claims (see above in **Table 3**). This may be in part due to the increasing complexity of endoscopic procedures that are now being offered to patients with advanced medical conditions and reflects the wider trend of increasing costs of clinical negligence claims.

Table 4: Top five most frequent causes for litigation in gastroenterology

Cause	Number of claims
Treatment	639
Diagnosis	395
Nursing care/assistance	63
Medication error	61
Consent	39

Source: NHS Resolution 2013/14 to 2017/18

Causes

We identified common causes for litigation in gastroenterology using the NHS Resolution data. Some claims had more than one cause assigned. The most common cause for litigation in gastroenterology is treatment in clinical practice, which accounts for over half of claims, followed by diagnosis. These are common cause groups in litigation in many medical and surgical specialties.

Endoscopy

As gastroenterology practice commonly involves endoscopic diagnostic and therapeutic procedures, there is a proportion of claims that are directly related to procedures. There were 242 gastroenterology claims related to endoscopic procedures, which accounted for an estimated potential cost of £40 million.

Standardised safe practice in this area is essential to maintain patient safety and reduce clinical negligence claims. JAG guidance, regular global rating scale (GRS) audits, and BSG quality standards have all helped to identify best practice standards for endoscopy.

Informed consent

Consent also features in the top five causes for clinical negligence claims in gastroenterology. This highlights the importance of informed patient consent for procedures.

The Montgomery ruling in 2015 emphasised the importance of clinicians discussing all available treatment options, including conservative treatment, with patients. The discussion must be tailored to the individual patient and clinicians must inform the patient of all material risks associated with the proposed procedure.

The BSG has published guidelines regarding consent for gastroenterology endoscopy procedures[94] to support clinicians in this area.

[94] *Everett SM, Griffiths H, Nandasoma U, et al. Gut 2016;65:1585– 1601.*

Recommendation: Reducing the impact of litigation

Recommendation	Actions	Owners	Timescale
24. Reduce litigation costs by application of the GIRFT Programme's five-point plan.	**a** Clinicians and trust management to assess their benchmarked position compared to the national average when reviewing the estimated litigation cost per activity. Trusts would have received this information in the *GIRFT Litigation data pack*.	Trusts	For immediate action
	b Clinicians and trust management to discuss with the legal department or claims handler the claims submitted to NHS Resolution included in the data set to confirm correct coding to that department. Inform NHS Resolution of any claims which are not coded correctly to the appropriate specialty via *CNST.Helpline@resolution.nhs.uk*	Trusts	Upon completion of 24a
	c Once claims have been verified, clinicians and trust management to further review claims in detail including expert witness statements, panel firm reports and counsel advice as well as medical records to determine where patient care or documentation could be improved. If the legal department or claims handler needs additional assistance with this, each trust's panel firm should be able to provide support.	Trusts	Upon completion of 24b
	d Claims should be triangulated with learning themes from complaints, inquests and serious untoward incidents (SUI) / serious incidents (SI) / patient safety incidents (PSI) and where a claim has not already been reviewed as SUI/SI/PSI, we would recommend that this is carried out to ensure no opportunity for learning is missed. The findings from this learning should be shared with all frontline clinical staff in a structured format at departmental/directorate meetings (including multidisciplinary team meetings, Morbidity and Mortality meetings where appropriate).	Trusts	Upon completion of 24c
	e Where trusts are outside the top quartile of trusts for litigation costs per activity, GIRFT will be asking national clinical leads and regional hubs to follow up and support trusts in the steps taken to learn from claims. They will also be able to share with trusts examples of good practice where it would be of benefit.	Trusts	For continual action throughout GIRFT programme

Gastroenterology in the context of COVID-19

How COVID-19 has affected the GIRFT process for gastroenterology

The COVID-19 pandemic gathered pace during our deep-dive visits, resulting in our needing to cancel all face-to-face deep dives when we had completed 59 of our planned 132 visits. After a pause of over three months, we then completed all the remaining visits by 31 March 2021 by doing 70 virtual deep dive visits using video conferencing. This gave a total of 129 visits, as some trusts had merged since the workstream first began and opted for a combined visit. However, to reflect the challenges that COVID-19 is creating (and will continue to create) for gastroenterology departments, we created this extra section to focus on the most useful elements for departments as they prepared for the post-COVID-19 world.

In this section, which was created after the majority of the national report was complete, we have:

- explained the impact of COVID-19 on gastroenterology in particular;
- shared some of the most useful learnings from the pandemic at the point of writing;
- explored some of the changes that we expect to see in upcoming months to deal with the backlog caused by disruption to diagnostic and elective work;
- included the recommendations that are most relevant to the post-COVID-19 healthcare landscape and shown how they can be adapted.

In general, it was notable that our recommendations did not need to change substantially in response to the post-COVID-19 landscape. Instead, many of them simply gained further relevance and urgency.

Finding out how trusts have already responded

To find out more about how trusts had responded to COVID-19, we added questions about trusts' COVID-19 response to our virtual visits. In July 2020, following the initial peak of the crisis, we also sent a follow-up question to trusts that we had already visited. In both situations, we asked about each trust's response, learnings and thoughts about the future.

We were overwhelmed by the creativity and innovation shown in their responses, and have included their insights and feedback throughout this section.

We would like to thank the trusts who responded for giving their time to provide this feedback, while still dealing with the crisis.

Other guidelines on post-COVID-19 gastroenterology

At the time of writing, many organisations had developed, or were in the process of developing, guidance to help gastroenterology departments during and after the pandemic. We have noted some examples of this guidance here, but this is obviously a snapshot of what is currently available, and these documents will be updated or replaced as time goes on. Please continue to check www.bsg.org.uk/covid-19-advice/ for further updates.

- BSG's and JAG's joint guidance on *Endoscopy activity and COVID-19*
  www.bsg.org.uk/covid-19-advice/endoscopy-activity-and-covid-19-bsg-and-jag-guidance/
- The BSG's *Guidance on recommencing GI Endoscopy in the deceleration & early recovery phases of the COVID-19 pandemic*
  www.bsg.org.uk/covid-19-advice/bsg-guidance-on-recommencing-gi-endoscopy-in-the-deceleration-early-recovery-phases-of-the-covid-19-pandemic/
- *Multi-society guidance on further recovery of endoscopy services during the post-pandemic phase of COVID-19*
  www.bsg.org.uk/covid-19-advice/bsg-multi-society-guidance-on-further-recovery-of-endoscopy-services-during-the-post-pandemic-phase-of-covid-19/
- The BSG's report *Rebooting Gastroenterology and Hepatology Outpatients in the wake of COVID-19*, which contains a toolkit setting out how to reconfigure outpatient gastroenterology and hepatology services for the future, using learning from the pandemic.
  www.bsg.org.uk/covid-19-advice/bsg-guidance-rebooting-gastroenterology-and-hepatology-outpatients-in-the-wake-of-covid-19/
- *The Joint ACPGBI, BSG and BSGAR considerations for adapting the rapid access colorectal cancer pathway during COVID-19 pandemic.*
  www.bsg.org.uk/covid-19-advice/covid-19-advice-for-healthcare-professionals/joint-acgbbi-bsg-and-bsgar-considerations-for-adapting-the-rapid-access-colorectoral-cancer-pathway-during-covid-19-pandemic/
- The BSG's *Advice for management of inflammatory bowel diseases during the COVID-19 pandemic*
  www.bsg.org.uk/clinical-resource/guidance-for-management-of-inflammatory-bowel-disease-during-the-covid-19-pandemic/
- The *ACPGBI's Guidance on Management of Patients with IBD requiring Surgical Intervention during COVID-19*. This guidance highlights the importance of medication management and preventing flare-ups for patients with Inflammatory Bowel Disease (IBD), creating pathways for safe endoscopic investigation and guidelines for surgery.
  www.acpgbi.org.uk/news/acpgbi-guidance-on-management-of-patients-with-ibd-requiring-surgical-intervention-during-covid-19/
- *Adaptations to the BSG guidelines on the management of acute severe ulcerative colitis in the context of the COVID-19 pandemic: a RAND appropriateness panel.*
  www.bsg.org.uk/covid-19-advice/adaptation-of-the-bsg-guidelines-on-the-management-of-acute-severe-ulcerative-colitis-in-the-context-of-the-covid-19-pandemic-a-rand-appropriateness-panel/

Why COVID-19 affected gastroenterology in particular

The pandemic obviously affected all specialties, but has had a particularly wide impact on gastroenterology – especially endoscopy. The main reasons for this are outlined below.

General medicine commitments

As most gastroenterologists are dual accredited as gastroenterologists and general physicians, they were redeployed to support general medicine in order to help hospitals cope with the influx of COVID-19 patients. This reduced time available for gastroenterology specialty work.

Transmission risk

Early in the pandemic, most face-to-face clinics and all but emergency and essential endoscopy stopped with immediate effect, in line with national guidance. This resulted in a reduction in endoscopy procedures to only around 5% of normal activity (according to NED data).

This was for several reasons:

- All forms of endoscopy were felt to carry a risk of transmitting COVID-19 to both staff and to patients, due to aerosols generated during the procedure, which could be inhaled.
- Trusts needed to reduce the risk of transmission to staff in order to reduce staff sickness absence and ensure they had enough staff available to cope with the peak of the pandemic. The safest way to do this was to limit all non-essential exposure, including reducing the number of people visiting the hospital.
- Reducing the number of patients and general public accessing the hospital also reduced the risk of hospital-to-community and community-to-hospital transmission, to help delay the peak of the pandemic and flatten the curve of infections.

Pressures on Personal Protection Equipment (PPE)

Early in the pandemic, there were widespread concerns about the availability of PPE. Due to the aerosols generated during procedures, endoscopy uses up large amounts of PPE. Trusts therefore needed to reduce endoscopy to an absolute minimum to preserve PPE stocks for essential areas, such as intensive care units.

Balancing benefit and risk

During the peak of the pandemic, trusts had to limit access to treatment for all patients, other than those requiring emergency treatment. Therefore even if patients could have a diagnosis made by doing an endoscopy, they would often not have been able to proceed to treatment, due to the restrictions on access to surgery, intensive care, chemotherapy and other treatment pathways. This meant that it was safer to defer diagnostic, screening or surveillance endoscopy until after the peak of the pandemic – otherwise there was more risk to the patient than benefit.

Trusts also had to balance the benefits of endoscopy with potential risks from complications. Potential risks, such as bleeding or perforation, could have resulted in worse outcomes for the patient while access to surgery and intensive care was restricted, as well as increasing their risk of acquiring COVID-19 in hospital.

Ongoing capacity restrictions following the peak of the pandemic

When it became possible to start restoring endoscopy services, the ongoing transmission risk meant that trusts could not return to full capacity. For example, departments have had to:

- Carry out COVID-19 checks on all patients attending for endoscopy procedures. This involves patients answering screening questions and having a swab test a few days before their procedure, with some trusts also asking patients to self-isolate before the procedure. This means it is very difficult to fill gaps in lists, for example caused by patients cancelling their test at short notice or not attending for it.
- Allow time between procedures for aerosol droplets to settle: the worse the ventilation system (the number of air exchanges per hour), the longer the gap needed between procedures and therefore the fewer procedures possible per list.
- This meant that trusts had to limit the rooms that they use for endoscopy to those with good ventilation, or install new ventilation systems, to mitigate the risk from aerosol generating procedures. Many units needed to alternate rooms between procedures to cope with this, which further limited the number of lists that could be performed.
- Change PPE between each patient, which is time-consuming and tiring for staff.
- Carry out enhanced room cleaning between procedures, once droplets had settled. As well as being time-consuming itself, often nursing staff had to carry out cleaning, as there were not enough cleaning staff to dedicate to this task.
- Reduce appointments in order to limit the number of patients in the department – in waiting rooms, recovery rooms and discharge rooms for example – to allow for social distancing requirements.

All these measures, plus lost workforce capacity in gastroenterology and associated services, such as radiology, continue to significantly limit the number of procedures that can be carried out in each unit.

Despite these limitations, trusts must now tackle the backlog in cancer referrals, other symptomatic referrals, and screening and surveillance procedures, all of which involves difficult prioritisation decisions. This combination of a substantial backlog with ongoing restrictions will have a long-lasting effect on current and future disease, and was a significant concern in many trusts' responses.

Key themes

As a result of the necessary shifts in focus, and the resulting backlogs, we have identified recommendations from the main report that deserve particular focus in the upcoming months. Most of these focus on senior clinical decision makers triaging cases, as getting patients assessed and treated – especially those at high risk of significant pathology – will be key to improving patient outcomes in the longer term.

We would also like to emphasise the importance of trusts liaising closely with primary care colleagues, to ensure that referrals are appropriate in the first place, and that all possible pre-testing has been done before a patient is referred, so that only patients who need to attend hospital do so. This should help to prevent further increases to backlogs, and also help to reduce transmission of COVID-19 in hospital, especially to vulnerable patients.

Here are the key themes that we saw from the trusts' responses:

- Gastroenterologists were able to commit immense time and energy to the COVID-19 response, particularly in switching to practising general medicine. This is due to the high volume of outpatient and day case work they usually undertake, which was largely paused during the peak of the pandemic.
- Trusts are rightly proud of their departmental responses, often emphasising the strong team ethos and their eagerness to share learnings.
- Colleagues were incredibly quick to adapt systems, rooms, equipment, triage mechanisms, working practices and countless other measures to meet the crisis, meaning that many trusts are already starting to cut their backlog. However, this will take many months to tackle fully, meaning gastroenterologists will need to devote as much time as possible now to their specialist work.

- Trusts were particularly adept at tackling the physical constraints that COVID-19 brought to rooms, such as ventilation, use of space and enhanced cleaning.
- They were also fast to adopt a wealth of new technologies, from obvious wins like virtual clinics (where they were able to put in place new software and systems support), to new solutions, such as an app that helps patients with IBD self-management and gives clinicians sight of their progress.

The burst of innovation has been very positive for departments, and trusts told us they would be retaining many of the processes they had implemented post-COVID-19. Nevertheless, trusts were also deeply concerned about the ongoing effect on diagnostic services in particular, and unsure when or how they could return to something like a 'normal' service – if ever.

It is not possible for us to list out all the adaptations and innovations that we saw in the trusts' responses. However, we have given an overview and some of the key learnings here, alongside the recommendations from the report that will be especially relevant going forward.

- *Optimising capacity post-COVID-19*
- *Triage, prioritisation and decision making*
- *Proactive care*
- *Alternative diagnostic and screening pathways*
- *The way we see patients*
- *Preparing for the future*

Charity support during COVID-19

Many charities, including the BSG, provided extremely valuable support and information during the COVID-19 pandemic, helping to support vulnerable patients when NHS resources were occupied dealing with the pandemic.

Most reported large increases in patient contact during the pandemic:

- BSG itself had a 639% increase in web page traffic between the end of February 2020 and the end of March 2020.
- The British Liver Trust's nurse-led helpline had a 155% increase in the number of enquiries in March 2020 compared to the same period in 2019. Overall, website traffic increased by 73% from February to March.
- Crohn's and Colitis UK experienced a four-fold increase in enquiries and a 600% surge in visits to their website between 22nd-28th March 2020, and reported that many more patients had depended on their services as IBD nurses working on hospital advice lines had been redeployed to the frontline of inpatient and critical care. Crohn's and Colitis UK also worked with the BSG to develop an IBD Registry web tool, which enabled patients to self-assess their risk, and to share information with hospitals to allow them to identify who was shielding.
- Guts UK reported that the average number of people reading their news posts rose from 370 to 20,717 for COVID-19-related news. Their patient information requests via email rose by 63% during lockdown, while telephone calls increased more than 100%.

Unfortunately, despite providing such a vital support service, most charities also suffered significant drops in income, partly due to the cancellation of fundraising events during lockdown.

Optimising capacity post-COVID-19

Trusts have adapted quickly and efficiently to start tackling backlogs and optimise the throughput of patients, and will sustain this focus post-COVID-19. However, the pandemic will continue to reduce effective capacity for many months, as departments both manage backlogs and allow extra time for the safety measures in place to limit transmission. Trusts will need to consider how they can increase capacity to avoid increasing waiting times further.

Focusing on six- or seven-day services and extended hours

As hospitals restore services, getting patients in, seen quickly, and out again with as little exposure to other people as possible will continue to be important. Running properly resourced six- or seven-day services, alongside evening sessions, will be a key part of this. This is particularly true of six- or seven-day ward services, as these increase the chances that patients can be discharged at the weekend and spend less time in hospital. Extended services will also be important in reducing the backlogs in endoscopy and clinics (although for clinics, the use of virtual clinics has mitigated some of the impact).

In the responses received from trusts, we heard about trusts that were now running three-session days and seven-day services for endoscopy, adding outpatient clinics, extending hours and adding services in alternative sites – although lists were still running at reduced capacity due to the constraints placed on services by COVID-19.

Relevant recommendation from our report	Changes for post-COVID-19 era
1a. Introduce more six- or seven-day services and extended hours for inpatient ward rounds and endoscopy.	As well as driving waiting lists down, these should also focus on discharging patients as quickly as possible to minimise hospital exposure to COVID-19.

Reviewing general medicine commitments for gastroenterologists

One of the key recommendations from our report was that trusts need to reconsider the amount of general medicine that gastroenterologists undertake, and potentially limit general medicine commitments to registrars in their early years, allowing more specialty time in job plans for more senior trainees, and for gastroenterology consultants.

During the pandemic, gastroenterologists' flexibility to work in general medicine was, and will continue to be, vital to the national effort to cope with the crisis. This was clear from trusts' responses, as most listed ways that their department had diverted staff to roles throughout the hospital.

However, gastroenterologists now need to work within their own specialty, dealing with the post-COVID-19 backlog and preventing further delay to patient care causing harm. This brings extra focus to this particular recommendation in the upcoming months.

Relevant recommendation from our report	Changes for post-COVID-19 era
2b. Review consultant job plans to ensure a mutually acceptable balance in commitments to gastroenterology and to reduce general medicine commitments where possible. Where this increases elective work and leads to radiology and pathology requests, ensure this is planned and resourced.	Trusts will need to review general medicine commitments urgently to release specialist time to focus on backlogs.

Reducing Did Not Attend rates with pre-assessment checks

During the pandemic, hospitals have needed to call patients several days before their endoscopy appointment to ask them the 'SCOTS' questions (Symptoms, Contact, any Occupational exposure, any Travel to high-risk areas and are they Shielding). These questions are designed to ensure that patients do not attend their appointment if they may have, or are at high risk of having, COVID-19.

These pre-assessment phone calls can also be used to carry out other pre-assessment checks for endoscopy – for example checking that patients:

- have paused medication if required;
- understand their bowel preparation;
- are likely to be well enough to undertake the preparation and the procedure.

This will help to prevent two risks: of patients failing to attend their appointment, or of patients having their appointment cancelled on the day due to inadequate preparation. Some trusts told us that they had been able to implement this pre-assessment, and/or had improved pre-visit information.

CASE STUDY

Reducing DNAs and cancellations with a pre-assessment service

Gloucestershire Hospitals NHS Foundation Trust

Before the COVID-19 pandemic, the trust already had a nurse pre-assessment service set up for two-week wait and routine six-week wait direct-to-test colonoscopy referrals. However, this service had to stop during the pandemic, and instead all patients were vetted by a nurse endoscopist or consultant, and sent a faecal occult blood (FOB) test. Patients with a positive FOB test were booked for colonoscopy. The pre-assessment team contacted the patients before the procedure to confirm they understood why it was needed and were happy to go ahead with it.

The endoscopy pre-assessment service started again in May 2020, now including advice on COVID-19 measures alongside regular preparation, such as:

- the personal protective equipment (PPE) that is used within the department;
- rules regarding relatives entering the unit;
- the need for COVID-19 swabbing;
- requirements for self-isolation;
- bowel preparation;
- medication for diabetes and anticoagulation;
- sedation;
- transport home;
- any comorbidities.

If patients have had a positive COVID-19 swab test result, the pre-assessment service calls them advise on the need to self-isolate and to cancel their planned procedure.

The endoscopy unit's pre-assessment and medication advice documentation has also been updated and adapted. This is now uploaded onto the Endoscopy Management System (EMS) and can be seen by nursing staff and the endoscopist.

Results

The trust has very low DNA and on-the-day cancellation rates for endoscopy procedures. The pre-assessment team are able to reassure patients worried about coming to the hospital during the pandemic, and about the invasive procedure. Now that the pre-assessment documents are uploaded onto the EMS, the trust has an accurate and easily available record of the discussions that have taken place.

The trust plans to expand this service to include the endoscopy nursing staff at Cheltenham General Hospital, which will mean they are also able pre-assess the upper gastrointestinal endoscopy patients.

Relevant recommendation from our report	Changes for post-COVID-19 era
3a. Look at ways to reduce Did Not Attends (DNAs) and cancellations using existing *NHS Improvement guidance*[95] and *NICE clinical guideline CG138*[96] to help optimise capacity and reduce waiting times.	Use necessary pre-assessment SCOTS call to check understanding and appropriate preparation, and to ensure the patient is well enough for the test.
3b. Review pre-visit patient information provision to reduce the risk of patients having to be turned away at attendance or admission.	Improve pre-visit information to explain changes to the service following the pandemic.

Repurposing screening workforce

Bowel scope (flexible sigmoidoscopy) screening, as part of the National Bowel Cancer Screening Programme (NBCSP), has currently paused. It will be replaced by an increase in stool testing (mostly FIT testing) to prioritise patients (see *Increasing the use of stool testing to prioritise colonoscopy and IBD patients* below).

Staff who are accredited bowel scope screeners are not automatically able to switch to performing colonoscopies, as they need further training to become JAG accredited colonoscopists.

Trusts will need to work out how best to retrain or repurpose this workforce. For example, some may be interested in additional training:

- to become accredited NBCSP colonoscopists, although we suspect the majority may not be interested as this is a significant step up to more therapeutic work;
- to train in diagnostic colonoscopy (rather than accredited NBCSP colonoscopy);
- to train in gastroscopy – potentially alongside diagnostic colonoscopy.

Training in endoscopy has been halted or slowed due to the pandemic, but as it restarts trusts may need to take early action to make best use of their available workforce. The development of training academies may help with endoscopy training in the future (see *Diagnostic hubs* on page 140).

Repurposing and adapting spaces

In trust responses, we saw how some trusts had found innovative ways to repurpose rooms to provide additional endoscopy rooms, or to use existing rooms more safely or efficiently. For example, trusts needed to:

- replace rooms deemed unfit due to poor ventilation, or update the ventilation system in rooms to improve the air exchange rate;
- find new spaces that allowed for greater social distancing between waiting patients;
- create COVID-19-minimised areas – separating non-COVID-19 patients onto a different site, or area within a site, to decrease transmission risk.

To answer these demands, trusts told us about:

- creating small endoscopy units in community hospitals with good road links;
- alternating between rooms, allowing one to be cleaned while the other was used;
- repurposing operating theatres into endoscopy rooms;
- adding air filtration devices to improve ventilation;
- putting together a business case for purchasing new ventilation systems to allow increased numbers of procedures per list (where this would be more cost effective than insourcing activity).

Once the COVID-19 backlog is cleared, trusts may have created 'spare' rooms, which can then be rented to other hospitals, used for increased NBCSP, or used to provide extra endoscopy capacity generally within the ICS. Some may become 'diagnostic hubs' to ease access to diagnostic services (see *Diagnostic hubs* on page 140).

[95] *https://improvement.nhs.uk/documents/2108/reducing-dna.pdf*

[96] *www.nice.org.uk/guidance/cg138*

Using digital technology

In the responses we received from trusts we saw many examples of trusts adopting new technology to speed up everyday administrative tasks and to run meetings more quickly and safely. For example, one trust had introduced digital speech-to-text systems to speed up note taking and discharge letters etc.

Trusts were also using video conferencing for:

- multidisciplinary team meetings;
- training;
- assessments and clinics (see *Virtual clinics* below).

We also expect the percentage of trusts using electronic referral systems to increase. Pre-COVID-19, we found that, of the trusts that told us they had an inpatient gastroenterology ward referral system, only 65.9% had an electronic system.

Triage, prioritisation and decision making

Fast, accurate and efficient triaging gained particular importance during the pandemic, and trusts were often keen to adopt alternative methodologies. Some of these new or adapted approaches will form the basis of diagnostic pathways as services recover.

Implementing Clinical Assessment Services and senior triage

Implementing Clinical Assessment Services (CAS) is a key recommendation in our report, and streamlined triage is even more important in the post-COVID-19 world, as emphasised in the BSG's own guidance.

It is particularly important that this is combined with senior-level decision making and prioritisation, for both clinics and for endoscopy. This ensures that:

- the most clinically urgent referrals are dealt with first;
- patients can be diverted direct to test where appropriate;
- GPs or secondary care providers can be directed to provide appropriate pre-investigations where needed;
- inappropriate referrals can be redirected or rejected;
- Advice and Guidance can be given to GPs and patients.

These measures will mean that a number of patients will no longer need to come to clinic or have endoscopy, which will reduce waiting times for those that do need appointments.

Trusts will need to ensure that senior-level clinical decision makers (mostly consultants) are allocated enough Direct Clinical Care (DCC) time to provide this extra triage. There will be benefits to the trust if they can do this: the triage will be very cost effective, and safer than delaying treatment due to a backlog that is likely to take more than a year to clear. Without senior-level triage, administrative staff will be forced to simply book patients who have had the longest waits first, rather than focusing on the highest clinical need.

We saw many examples of improved triage, referral management and waiting list management in responses from trusts.

For example, some trusts:

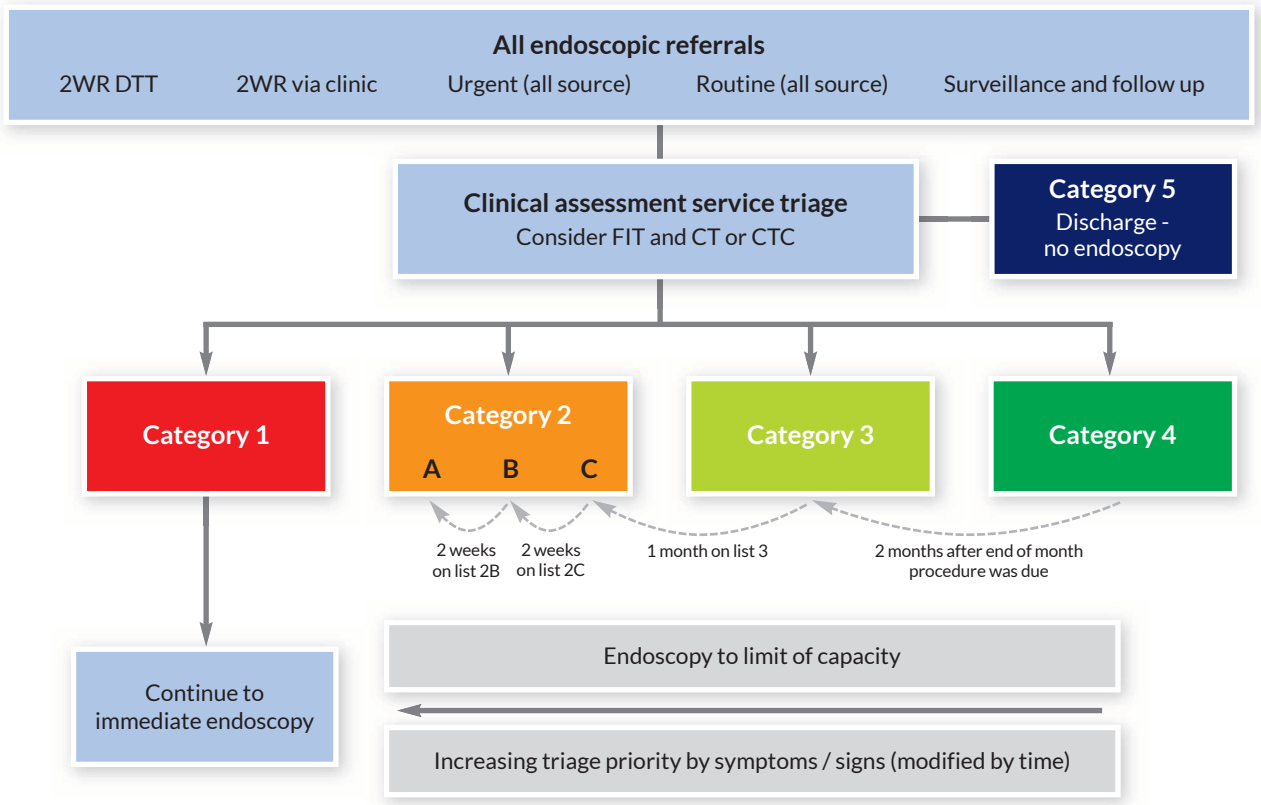
- redesigned referral pathways (see **Figure 39** below);
- implemented e-referral systems;
- separated upper- and lower-gastrointestinal (GI) lists, some using gastroenterologists for upper GI and colorectal surgeons for lower GI;
- triaged all patients by telephone, then either sent direct to test, provided an outpatient appointment, or discharged them back to their GP;
- combined triage with Advice and Guidance to GPs;

- split two-week wait referrals between patients with dysphagia (difficulty swallowing), who were reviewed by nurse endoscopists or consultants based on BSG guidance using the Edinburgh dysphagia score (as recommended in *BSG Guidance on recommencing GI Endoscopy in the deceleration & early recovery phases of the COVID-19 pandemic*[97]), and patients with colorectal symptoms, who were assessed by nurse endoscopists or colorectal surgeons using FIT testing and ACPGBI guidance (see *The Joint ACPGBI, BSG and BSGAR considerations for adapting the rapid access colorectal cancer pathway during COVID-19 pandemic*[98]);
- conducted regular Harm Reviews to ensure harm to patients was being minimised;
- worked towards merging waiting lists with other trusts in a regional network, to make the most of available capacity across the region.

At the time of asking (August 2020) a few trusts had managed to return to up to 85% of pre-COVID-19 endoscopy capacity, and were making substantial inroads into reducing their backlogs – both of which are extraordinary achievements in such a short space of time. By applying some of the triaging measures above and as recommended in BSG guidance, some trusts had managed to discharge a high proportion of their symptomatic and surveillance endoscopy waiting lists. However, the backlog is still likely to take many months to reduce. It is also important to note that COVID-19 restrictions and loss of workforce to COVID-19 quarantine has had a large impact on radiology departments, which now need to balance access for acute and urgent elective work.

One trust (see **Figure 39** below) redesigned its triaging process for endoscopy referrals entirely, ensuring that routine and surveillance cases are built into the process and will move up the list over time.

Figure 39: Example of triaging process provided by South Tees Hospitals NHS Foundation Trust



[97] *www.bsg.org.uk/covid-19-advice/bsg-guidance-on-recommencing-gi-endoscopy-in-the-deceleration-early-recovery-phases-of-the-covid-19-pandemic/*

[98] *www.bsg.org.uk/covid-19-advice/covid-19-advice-for-healthcare-professionals/joint-acgbbi-bsg-and-bsgar-considerations-for-adapting-the-rapid-access-colorectoral-cancer-pathway-during-covid-19-pandemic/*

Relevant recommendation from our report	Changes for post-COVID-19 era
4a. Implement a Clinical Assessment Service (CAS) with senior clinical decision maker triage to review outpatient department referrals, and ensure there is budget and job-planned time allocated for running this.	Further emphasis on the need for senior-level decision making as part of the CAS. Trusts need to ensure that senior decision makers (largely consultants) are allowed enough Direct Clinical Care (DCC) time to provide this extra triaging of outpatient and endoscopy referrals. Senior-level decision making may help to prevent unnecessary investigations, but trusts will also take into account the ongoing capacity issues with radiology teams.

Enhancing triage of gastroscopy patients

Gastroscopy is an aerosol generating procedure (AGP), and will therefore be restricted in the post-COVID-19 era. Trusts and primary care colleagues can work together to ensure that patients only undergo the procedure when it is necessary, and when Helicobacter pylori has been tested for, if appropriate, and treated where present.

We recommended the consistent use of the H. pylori test in primary care in our report, with patients only being referred for gastroscopy where this met NICE guidance. For example:

- if there were any cancer red flags;
- if H. pylori had been ruled out;
- if H. pylori had been treated, where present, but symptoms persisted following treatment.

We also focused on the use of gastroscopy in patients under 55, where cancer is an uncommon outcome. We recommended that all referrals should strictly follow NICE guidance, including in direct-to-test pathways. We also recommended that primary care colleagues manage patients' expectations of what a gastroscopy could achieve.

These recommendations highlight the importance of working closely with primary care colleagues in the post-COVID-19 era, in ensuring that referrals are appropriate and all relevant pre-testing has been carried out. These measures will help to prevent escalating waits and reduce gastroscopy backlogs.

Several trusts told us that they had reprioritised their gastroscopy lists using senior clinical triage and were assessing patients with dysphagia using the Edinburgh Dysphagia Score, following BSG guidance. One trust using this method had found that only 30% of patients referred for dysphagia actually had dysphagia and met the criteria for a two-week referral.

Relevant recommendation from our report	Changes for post-COVID-19 era
7a. Ensure that H. pylori is tested for where patients have dyspepsia or upper gastrointestinal symptoms, but no cancer 'red flags' or other appropriate indications requiring gastroscopy. **7b.** Ensure that where H. pylori is present, it is treated to eradicate it, and referral only made where symptoms persist.	Trusts will benefit from encouraging primary care colleagues to pursue H. pylori testing more consistently and building this into referral prioritisation.
8b. Vet all referrals using *NICE guidance on cancer referrals*[99] to ensure patients meet the criteria required. **8c.** Alternatively, where direct-to-test pathways are used and not vetted, make the indications for gastroscopy very clear in line with *NICE guideline NG12 on cancer referrals*[100], to stop inappropriate referrals. **8d.** Work with primary care colleagues to manage patients' expectations of the value of gastroscopy and improve shared decision making in line with *NICE Clinical Guideline CG138 on patient experience*[101].	Use the Edinburgh Dysphagia Score as part of upper GI cancer referral pathways.

[99] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*
[100] *www.nice.org.uk/guidance/ng12/resources/suspected-cancer-recognition-and-referral-pdf-1837268071621*
[101] *www.nice.org.uk/guidance/cg138*

Using CT and CTVC to reduce the need for endoscopy

During the pandemic, departments diverted some patients on two-week referrals to CT or CTVC scans where appropriate. Using CT and CTVC can reduce demand on endoscopy limiting the development of further endoscopy backlogs, and reduces the number of AGPs carrying a risk of COVID-19 transmission.

In our report, we recommend increasing the use of CT and CTVC for older, frailer patients, where it may be more appropriate than an invasive endoscopy, if investigation is required. These patients are also far more vulnerable to COVID-19 complications. Therefore, post COVID-19, trusts may consider expanding the criteria for diverting a referral via this route, and indeed some trusts that responded to us were using more CT scanning as part of their initial diagnostic pathways. This will increase pressure on already hard pressed radiology services and will need to be appropriately resourced, for example by considering the use of diagnostic hubs (see *Diagnostic hubs* below).

Relevant recommendation from our report	Changes for post-COVID-19 era
9e. Increase CT or CTVC capacity in co-ordination with radiology teams: any increase in demand will need to adequately planned and resourced.	As well as using CT and CTVC for older, frailer patients, consider expanding criteria to include other appropriate referrals. Due to pressure on radiology services, this will need appropriate funding and resource planning.

Increasing the use of stool testing to prioritise colonoscopy and IBD patients

Departments are already using more Faecal Immunochemical Testing (FIT) and faecal calprotectin tests to help prioritise the backlog of referrals.

FIT testing (or qFIT in symptomatic patients) is useful in prioritising patients with potential bowel cancer. FIT is a more sensitive test than the faecal occult blood test (FOBT) used previously. It measures the amount of human haemoglobin in the stool, so providing more useful quantitative information that can be used to prioritise referrals. Patients who have a concerning FIT test result are more likely to have a significant polyp or cancer: if their FIT level is over 150µg haemoglobin/g faeces, they have a 1 in 3 chance of colorectal cancer, and a 1 in 2 chance of significant bowel pathology[102, 103]. These patients can therefore be prioritised as departments restore endoscopy services. In the responses we received from trusts, several were now using FIT testing to prioritise all colorectal two-week wait referrals.

This increased use of FIT testing is supported by NHS England and NHS Improvement's clinical guide for triaging patients with lower gastrointestinal symptoms[104]. At the time of writing, the BSG is discussing the use of FIT with specialist societies and other stakeholders. Please check www.bsg.org.uk for further updates.

In a similar way faecal calprotectin testing can be used to prioritise patients with suspected IBD, or to help escalate treatment for those with known IBD, with patients showing elevated calprotectin levels being prioritised for specialist review and intervention. In future, faecal calprotectin testing is likely to be carried out using home testing for IBD patients, so that patients can monitor their condition themselves and reduce the need to come into hospital.

Many trusts told us that they had increased the use of stool testing, and FIT testing in particular, to help prioritise patients. Pathology colleagues were able to work with gastroenterologists to support the huge increase in this testing.

[102] *Chapman, C., Thomas, C., Morling, J. et al. (2019) Early clinical outcomes of a rapid colorectal cancer diagnosis pathway using faecal immunochemical testing in Nottingham. Colorectal Disease Vol 22. https://doi.org/10.1111/codi.14944*

[103] *Chapman C., Bunce, J., Oliver, S., et al. (2019) Service evaluation of faecal immunochemical testing and anaemia for risk stratification in the 2-week-wait pathway for colorectal cancer. BJS Open. https://doi.org/10.1002/bjs5.50131*

[104] *NHS England (2020) Clinical guide for triaging patients with lower gastrointestinal symptoms www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/06/C0551-triaging-patients-with-lower-gi-symptoms-16-june.pdf*

Relevant recommendation from our report	Changes for post-COVID-19 era
9b. Vet colonoscopy referrals and interrogate whether patients are being appropriately pre-assessed (including remote pre-assessment where appropriate).	Trusts need to work with primary care and pathology colleagues to continue to expand FIT and faecal calprotectin testing to help prioritise referrals.
17a. Ensure new referrals with suspected IBD, with or without elevated faecal calprotectin results, are seen in an IBD or gastroenterology clinic within four weeks.	When and where possible, increase the use of home testing for faecal calprotectin.
17b. Ensure IBD patients can easily access an effective IBD helpline and flare clinics, to reduce the likelihood of emergency admission.	

Proactive care

Patients suffering from chronic disease, including IBD and liver disease, are at increased risk of COVID-19 complications. Patients in this very vulnerable group may also have been reluctant to seek medical help for any worsening of their condition during the pandemic. This reinforces the need for proactive programmes to ensure that these patients can manage their own conditions with advice, prevent deterioration, and therefore avoid the need for further intervention in the higher-risk environment of a hospital.

Proactive care programmes for liver disease

Trusts may need to redouble efforts to put the following measures in place, all of which are discussed in our report:

- improved access to non-invasive testing for fibrosis, including blood tests such as FIB4 and ELF (in consultation with pathology colleagues), and fibroscan;
- consistent use of a liver care bundle;
- consistent use of cirrhosis discharge checklists;
- use of prophylactic treatment (such as beta blockers) to reduce risk of acute variceal bleeding;
- banding programmes to eradicate varices, particularly after variceal bleeding;
- improving day case rates for ascites drainage (in COVID-19-minimised sites where possible);
- improving access to alcohol care teams.

In addition liver referral checklists (to ensure GPs provide all the correct referral information needed) and cirrhosis discharge checklists (to ensure the correct advice has been given and follow-up services arranged on discharge from an inpatient episode) will also help trusts prioritise liver disease patients appropriately and reduce emergency admissions.

One trust told us about an ingenious way that their hepatology service had made the most of mitigation measures to reach some of their most vulnerable patients. When the government offered housing to homeless people to prevent the spread of COVID-19 among this group, Liverpool University Hospitals NHS Foundation Trust took the opportunity to visit the accommodation sites to screen these patients for Hepatitis C infection and to treat those patients who were found to be Hepatitis C positive.

Relevant recommendation from our report	Changes for post-COVID-19 era
11a. Establish proactive programmes to manage patients with alcoholic and non-alcoholic liver disease, including: • improved access to clinics; • access to dedicated alcohol care teams and/or alcohol and drug misuse nurses; • access to community detox; • access to weight-loss clinics for patients with or at risk of Non-Alcoholic Fatty Liver Disease, potentially working with dieticians or diabetic management teams; • screening emergency admissions for alcohol use, in line with NHS England and NHS Improvement prevention programmes.	Add to this list: • liver referral checklists; • cirrhosis discharge checklists. Alcohol use and obesity may have increased in some patients due to lockdown stress, and so proactive programmes are all the more important. Clinics are more likely to be virtual, but this may suit some patients better.
11e. Improve the day case rate for paracentesis.	Aim to carry out these procedures in COVID-19 minimised sites.
12a. Offer screening gastroscopy for patients with cirrhosis to detect oesophageal varices – in line with NICE guidance.	
12b. Ensure appropriate primary prophylaxis (such as beta blockers) and secondary prevention, including increasing day case rates of variceal banding, to reduce the risk of acute variceal bleeding.	
13a. Increase use of either appropriate blood tests (in consultation with pathology colleagues), or scanning technology (such as fibroscan or equivalent) in line with *NICE guidance on using fibroscans (MIB216)*[75], preferably giving GPs open access to book these scans.	Fibroscan services may have paused during the peak of the pandemic, but have since restarted.

Proactive care programmes for IBD

In our visits, we found that existing proactive care programmes for IBD, such as flare clinics and helplines, were extremely effective. These may need further support to ensure vulnerable IBD patients can manage flare symptoms themselves without coming into hospital, which will be a particularly high-risk environment for these patients.

Clinicians may also need to re-examine treatment pathways to prevent episodes of acute severe colitis, and bring down colectomy rates even further. During the peak of the pandemic, it was not possible to use laparoscopic surgery and primary anastomoses (removing a section of the bowel and joining the remaining bowel up again internally). Instead patients needed to have open surgery and a stoma. This surgery is even more life-changing. This means that trusts must focus even more intently on working proactively to preserve the bowel wherever possible.

Trusts may need to consider:

- retaining and recruiting more specialist IBD nurses, and avoiding redeploying specialist nurses to COVID-19 care, especially in the event of future waves – as these nurses play an essential role in keeping chronic disease patients stable and out of hospital[105];
- creating IBD multidisciplinary teams, if they do not already have these (thankfully most trusts in our visits did);
- ensuring clinicians are able to escalate a patient's treatment quickly when needed, for example by starting biologic treatment.

In responses from trusts we saw innovative ways to help patients self-manage. For example, one trust implemented the *My IBD Care* app and management platform, which helps people with IBD to access support and resources, set medication and appointment reminders, and self-report their condition. Clinicians can check on their progress using an online dashboard. Another trust had implemented a new acute ambulatory IBD pathway to manage patients with colitis flares out of hospital.

[105] *For more on this, see www.bsg.org.uk/covid-19-advice/workforce-planning-letter-from-girft-lead-for-gi-and-hepatology-and-the-bsg-president/*

Relevant recommendation from our report	Changes for post-COVID-19 era
17a. Ensure new referrals with suspected IBD, with or without elevated faecal calprotectin results, are seen in an IBD or gastroenterology clinic within four weeks.	Focus programmes on ways to reduce the likelihood that these patients need to attend hospital in person.
17b. Ensure IBD patients can easily access an effective IBD helpline and flare clinics, to reduce the likelihood of emergency admission.	Use virtual clinics wherever possible, including investing in video conferencing, as these will need to continue for the foreseeable future.
17c. Ensure there is an acute severe colitis pathway in place and used consistently across the trust, with access to proactive management of inflammation and salvage therapy to reduce the need for surgery.	Focus on proactive management even more intently, given that during any future peaks in the pandemic laparoscopic surgery may not be possible.

Alternative diagnostic and screening pathways

The transmission risk of endoscopy has meant that diagnostic pathways for patients, including screening programmes, have changed. Some of these changes will need to stay in place for some time – some may even prove to be permanent.

Innovative diagnostic approaches

Many trusts have been fast to adopt new medical and logistical innovations as tools to aid prioritisation and drive down waiting lists.

For example, trusts have:

- Used capsule endoscopy, where the patient prepares their bowel, then swallows a camera inside a capsule. This passes through the gut and images are transmitted to a receiver on the patient's belt. The capsule is discarded in the patient's stool. Some trusts were already using small bowel capsule endoscopy, but there have also been some research trials in colon capsule endoscopy. If the video shows a potential problem, the test can be followed up by colonoscopy as needed for biopsies, polypectomy, or other procedures. If normal, the patient may avoid having an invasive endoscopy. Please note that colon capsule endoscopy is currently undergoing validation and needs to be used within the confines of a strict agreed protocol.
- Adopted new telemedicine systems to improve access to virtual clinics (see *Virtual clinics* below).
- Increased uptake of FIT (which is more accurate than previously used faecal occult blood testing) and faecal calprotectin stool testing to improve prioritisation (see *Increasing the use of stool testing to prioritise colonoscopy and IBD patients* above).

Diagnostic hubs

In the aftermath of the COVID-19 pandemic, there will be an increasing focus on developing COVID-19-protected diagnostic hubs[106], which identify and secure diagnostic capacity and protect staff and patient safety. Local capacity (including using the independent sector) will be ring-fenced to support diagnostic tests, including those for suspected cancer and for surveillance.

Diagnostic hubs[107] will help make the best use of all available capacity and bring referrals, diagnostics and treatment back to pre-pandemic levels as early as possible, minimising potential harm to patients and reducing the scale of the post-pandemic surge in demand. This will also accelerate delivery of the NHS Long Term Plan[108] to establish Rapid Diagnostic Centres.

It will still be important to prioritise patients waiting for diagnostic tests to allow capacity to be used efficiently, equitably and in accordance with clinical need. Hot reporting and multiple same-day tests, where needed, can also minimise patient visits to hospital.

ICSs and trusts will also need to expand the workforce to staff diagnostic hubs, which will also have implications on training. There are also economies of scale when expanding existing services within hospital trusts, which may not be present when staffing a separate smaller community diagnostic hub. Some larger endoscopy facilities could also become training academies.

[106] *NHS England and NHS Improvement (2020) Second phase of NHS response to COVID-19 for cancer services www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/06/C0511-second-phase-of-nhs-response-to-covid-19-for-cancer-services-letter.pdf*

[107] *https://www.england.nhs.uk/wp-content/uploads/2020/10/BM2025Pu-item-5-diagnostics-recovery-and-renewal.pdf*

[108] *www.longtermplan.nhs.uk*

The way we see patients

For clinics, it is unsurprising that the overall picture is of a shift to virtual clinics over face-to-face. The responses from trusts showed that, wherever possible, patients have already been moved to phone or video call clinics across the healthcare system.

In endoscopy, we also saw new approaches designed to minimise risk and maximise capacity.

Virtual clinics

Virtual clinics hold benefits for clinicians, patients and the wider healthcare system:

- Patients can be protected from COVID-19 exposure in the hospital – and hospitals see fewer patients coming in to clinic, reducing hospital to community and community to hospital transmission.
- Preventing exposure is particularly important for clinically vulnerable patients, such as the elderly and immunocompromised. While protecting these patients from COVID-19, this approach also protects vulnerable patients from other sources of infection.
- Virtual clinics may also be of use to patients who find clinics difficult for other reasons – such as embarrassment, needing frequent visits to toilets, or having other health conditions. These issues can be particularly prevalent in gastroenterology patients, such as those with IBD or liver disease.
- Clinics are no longer constrained by the availability of clinic rooms, meaning that potentially more clinics can be performed per day when staff are available.
- Clinic rooms also do not need to be cleaned between virtual appointments.

These benefits will continue into the future post-COVID-19, and therefore we expect that hospitals will continue and expand virtual clinics.

In the responses we received from trusts, we saw that trusts quickly adopted new technology where necessary to provide access to virtual clinics. For example:

- one trust was running 95% of clinics using phone or video technology (AccuRx Fleming and Attend Anywhere);
- some trusts used staff who were at higher risk of complications if they contracted COVID-19 (such as staff that were shielding) to staff virtual clinics, so they could avoid face-to-face contact.

Currently, most virtual clinics are by telephone: in a survey run by the BSG during the pandemic, only 11% of the BSG members who responded had access to video conferencing[109]. However, video clinics are likely to improve clinical judgement and the quality of shared decision making with the patient. During the pandemic, many patients will also have become more familiar with using video conferencing technology. It is likely that virtual clinics will continue – due to COVID-19 restrictions, and also because they are a better solution as part of personalised care planning for many patients, especially vulnerable patients. There is therefore a need for trusts to invest in video technology wherever possible.

Endoscopy innovation

Trusts told us about a wide range of measures they had undertaken in their endoscopy activity. For example, trusts told us about:

- encouraging patients to have their procedure without sedation if possible and only offering sedatives where clinically necessary, to reduce recovery times and help with social distancing;
- creating single-sex lists to maximise the limited space available to maintain social distancing – this allows all waiting or recovery areas to be used for just men or just women, rather than having some areas unevenly used depending on the mix of patients coming through the unit at a particular time;
- considering developing an intubation box for use during gastroscopy[110] to reduce aerosol spread;
- using transnasal gastroscopy to reduce the pressure on endoscopy units – this procedure can often be carried out without sedation and also involves a shorter recovery period, so patients are in hospital for less time.

[109] *British Society of Gastroenterologists (2020) The effect of COVID-19 on gastroenterology www.bsg.org.uk/workforce-reports/the-effect-of-covid-19-on-gastroenterology/*

[110] *Mcleod, R., Warren, N., Roberts, S. (2020) Development and evaluation of a novel protective device for upper gastrointestinal endoscopy in the COVID-19 pandemic: the EBOX https://fg.bmj.com/content/early/2020/06/12/flgastro-2020-101542*

Preparing for the future

COVID-19 itself will be with us for a long time to come, and is unlikely to be the last pandemic that we face. In the middle of the crisis it was difficult for trusts to do anything other than deal with the emergency patients coming through the door, but gastroenterology as a whole must learn from our shared experiences, and put in place as many measures as possible to mitigate future waves or future pandemics.

Preparing for future waves

At the time of writing, a second wave of COVID-19 is already gathering force. It is essential that we prepare effectively for this, and for future waves (or future pandemics). To do this:

- Workforce must be ringfenced to protect ongoing urgent and elective work that is not directly related to COVID-19. This is the only way to prevent a worsening crisis in gastroenterology disease in the coming months.
- Although there has been attention on restoring cancer diagnostics, it is vital that we do not forget that liver disease is expected to overtake cancer as a leading cause of premature death. As we restore diagnostic services, we must widen our focus to include other important conditions.
- Trusts must focus on creating adequate and responsive capacity for gastroenterology diagnostics, for example by creating network solutions, 'cold' hubs to carry out less urgent (but still necessary) work, and improving infrastructure. More detail about these solutions is provided in the independent review of diagnostics, carried out by Professor Sir Mike Richards.[111]

Without significant investment in these measures, we will find ourselves in a never-ending cycle of backlogs and worsening disease.

Sharing learnings to speed up future response

During the crisis, we saw knowledge being shared openly and quickly throughout the NHS and beyond. To prepare ourselves for future epidemic or pandemic events, we must preserve this momentum and capitalise on our existing networks and sharing mechanisms.

In our report, we recommended that national bodies reinvigorate knowledge sharing systems in order to prevent trusts from 'reinventing the wheel'. As gastroenterology capacity continues to come under pressure, it makes sense to use as many shared resources as possible – from care bundles to checklists, from research and trial results to wider guidance. We therefore recommend that departments focus on contributing to knowledge banks as well as keeping themselves up to date with available resources.

In the responses we received from trusts, we saw that many were already sharing learnings across trusts and through regional or national networks.

Relevant recommendation from our report	Changes for post-COVID-19 era
21b. Co-ordinate the sharing of best practice and business cases for gastroenterology and endoscopy services by establishing a GIRFT best practice library and learning platform.	This sharing can also take place on regional, Integrated Care System or trust-to-trust basis, as well as using national initiatives.

Protecting the wellbeing of staff

In our report, we emphasised the importance of allocating time for gastroenterology leads to implement measures to protect the wellbeing of their staff. This must be a key focus post-COVID-19, and we saw that some trusts had already developed measures to support staff, such as ensuring a strong team ethos and collaborative working, and providing psychological support for staff.

[111] *https://www.england.nhs.uk/wp-content/uploads/2020/10/BM2025Pu-item-5-diagnostics-recovery-and-renewal.pdf*

Supporting research

Gastroenterologists have always been keen participants in clinical research, which is vital for the future of our own specialty as well as healthcare overall, as part of the continuing drive towards evidence-based medicine. Research studies have shown that research-active trusts are associated with lower mortality rates[112].

Before the pandemic began, we were keen to understand how many departments were participating in research activities. However, during the pandemic, research assumed an even greater significance: it was crucial to helping us understand and combat this new disease. Researchers across the country put aside their existing studies and quickly focused on COVID-19 research, to benefit patients, staff and communities here and worldwide. That pace of change was staggering, and undoubtedly saved countless lives. Research progress and results were shared openly and quickly, helping every hospital gain the benefit of new approaches. The RECOVERY trial, which was able to use the NHS's unique setup to become the biggest randomised controlled trial of drugs against COVID-19 in the world, was just one example. Its discovery that the cheap and readily available steroid, dexamethasone, could cut deaths among patients on ventilators by up to a third will save thousands of lives around the world during the course of the pandemic.

As we consider the future, this momentum, transparency, and efficiency must continue if we are to both beat COVID-19 and restore services. For example, further research is needed to understand the risks associated with aerosol generating procedures, and the impact of COVID-19 on the general population as well as on high-risk patient groups in particular. We therefore encourage every trust to embrace research and consider what more they can do to support their staff to originate or participate in research studies.

This is fully in line with the *BSG's guidance on job planning*[113], which recommends that employers support consultants with a research interest and encourages 'as broad a participation as possible'. The guidance recommends allocating time to support research – across a range of roles, such as senior investigator, trial recruitment, laboratory work, grant writing and others. Its specific recommendations included the following:

- trusts should use job planning to protect time for clinical research within the Supporting Professional Activity (SPA) allocation, while maintaining 1.5 SPA for appraisal/revalidation;
- trusts should move towards including patient-facing research within the Direct Clinical Care (DCC) allocation;
- SPAs allocated for research should include adequate time for training, meetings, recruitment and patient contact time.

The BSG has previously produced a clinical research strategy[114] to help trusts and other stakeholders understand and engage with gastroenterology research projects. This is currently being updated. For more about this please see *www.bsg.org.uk/strategic-areas/research/*

We recommend that trusts now focus more attention on doing the following:

- **Engaging with a local Clinical Research Network (CRN)**
  Almost all of the trusts who told us that they were actively involved with a CRN felt supported by the network (see below).
- **Allocating staff to support research**
  Several trusts commented that they needed further staff time to support research studies, such as more research nurses. Research training, and bringing through new researchers, are both vital. Schemes designed to increase participation in research, such as the National Institute for Health Research associate principal investigator scheme, the Clinical Training Programme and local schemes that give PAs to support clinicians' own research can help to improve staff engagement. Where trusts did not feel supported in their research, most commonly this was due to insufficient research nurse time, insufficient dedicated consultant job planned time, or insufficient funding.
- **In line with these concerns, allocating PAs to research**
  In our questionnaire, we found that 49% of trusts (43 out of 88 trusts who responded) did not allocate any consultant PAs in gastroenterology to research, and only 13% (11 of the 88 trusts who responded) allocated five or more PAs in total from their gastroenterology consultants to research. Our question focused on trust or departmental PAs, and so may not have included university academic PAs.

  This is despite the fact that 92% of trusts who responded to this questionnaire were in a CRN (82 of 89 trusts responding to this particular question), and 78 of the 82 trusts in a CRN were participating in at least one research study – the majority of which were non-commercial studies (range 1-86 studies, mean 13.8 and median 8). The number

[112] *Research Activity and the Association With Mortality (2015): Baris A Ozdemir, Alan Karthikesalingam, Sidhartha Sinha et al https://pubmed.ncbi.nlm.nih.gov/25719608/*
[113] *BSG (2020) Consultant gastroenterologist job planning guidance www.bsg.org.uk/job-planning-guidance/consultant-gastroenterologist-job-planning-guidance/*
[114] *BSG (2018) Improving Gastrointestinal and Liver Care through Research www.bsg.org.uk/wp-content/uploads/2020/01/Research-Strategy.pdf*

of patients recruited to studies in the last two financial years ranged from 2 to 3,204 and totalled 45,132 across the 78 trusts. The average number of patients per study ranged from 2 to 334 with a mean of 48 and a median of 30.

This means that many clinicians are having to find time to support research without having time allocated to it. It is more important than ever that trusts allocate PAs to consultants to lead or be involved in research, as backed up by the Royal College of Physicians' *Research for All report*[115].

- **Ensuring that they have effective evaluation and quality audit processes in place**
  These must be sufficient to quickly and accurately track and measure outcomes. Evaluation processes will be increasingly important as we move forward, to check on direction and identify any unintended consequences of all the changes that have occurred because of the COVID-19 pandemic.

In addition, we saw the importance of local CRNs in supporting trusts. Of the trusts who reported that they were in a CRN, 45 out of 82 said that they felt fully supported, 32 felt partially supported, and five did not feel supported. As trusts face the daunting task of restoring services and working through backlogs, it is important that CRNs work to fully support their trusts.

CASE STUDY

Integrating IBD care with research to improve outcomes

Hull University Teaching Hospitals NHS Trust

Patient outcomes have improved and emergency admissions have fallen since Hull fully integrated its IBD clinical care with research.

Integration started in 2006, after deficiencies were identified by audit and patient panel evaluation. The trust redesigned the service using research and innovation to deliver personalised care, recognising the individual needs of each patient.

Patient pathways mirror a research environment, with protocols that ensure the patient's status is constantly monitored and proactively managed to avoid flares. A helpline for IBD advice and rapid access IBD clinics also help keep patients stable and reduce the risk of emergency admissions.

All members of the team participate in research activities, quality improvement projects and publications. Five-year strategies help the service evolve and adapt to changing therapies and patient needs.

Results

The service has achieved significant improvements including:

- fewer emergency IBD admissions;
- reduced colectomy rates in ulcerative colitis and in acute severe colitis;
- high healing rates for perianal fistula (where a small tunnel develops between the end of the bowel and the skin near the anus, which can happen as a complication of IBD);
- low rates of colitis-related colon cancer;
- extremely low rates of short bowel syndrome (where a large section of bowel has been removed or is not functioning);
- reduction in permanent stoma rates (where a section of bowel is removed and a permanent opening made in the skin to remove waste).

More than 70% of IBD patients at the trust are involved in research studies and the service provides continuity of care tailored to the needs of individual patients. The integrated service also offers more opportunities for professional development, helping with staff retention and development.

[115] *Royal College of Physicians (2016) Research for all www.rcplondon.ac.uk/projects/outputs/research-all*

Overall reflections on the impact of COVID-19

As well as the tragedy of lives lost and the worry of ongoing health issues for survivors, the pandemic brought huge disruption to every trust and to every member of staff, as well as to society as a whole. However, it also brought positive changes, and may potentially bring more in the future. As our main report highlighted, some previous common working practices – such as relying on staff always working additional hours – were not sustainable for patients, staff or trusts. The pandemic has been a catalyst for fast, wide-ranging changes, some of which (such as the use of virtual clinics or revised triage processes) will become effective permanent adaptations. As such, it reinforced almost all of the recommendations in our main report.

Even within the GIRFT process, we have embraced virtual working: our virtual deep dives are more effective in terms of time, cost and environmental impact.

Our job now is to 'build back better' with service recovery in our specialty, and to work 'better together' with increased focus on sharing learnings and innovations across networks – all of which will be welcome improvements.

Notional financial opportunities

Potential benefits

This report sets out a series of recommendations to improve the delivery of gastroenterology services. Taken together, the recommendations are designed to optimise capacity, enabling more patients to be seen and treated in a timely way and to reduce the need for invasive procedures where clinically appropriate. In this busy specialty, where demand for services like endoscopy is expected to grow, progress in these areas would be invaluable to patients and providers alike.

The specific impact of our recommendations is hard to measure in some areas, but in others, there is a clear tangible benefit that could be realised. We have sought to quantify this.

Considering around half of the changes this report recommends, GIRFT analysis has calculated there is a notional financial opportunity of between £34.8m and £62m a year.

These notional financial opportunities put an estimated value on the resource associated with variation based on providers achieving average or best quartile performance. The figures are gross sums, based on activity levels. As they rely on process change and productivity improvements, they are not necessarily cash-releasing and do not represent a comprehensive set of all opportunities discussed in the report. Nonetheless, they provide an indication of what may be possible.

Each opportunity would also bring with it benefits to patients. For example through improved access to prompt diagnosis and through reduced invasive procedures.

There are further savings that could be realised through streamlining procurement and reducing costs resulting from litigation. This report has identified a total spend of £179.1m on litigation against gastroenterology over a five year period. We expect implementation of the GIRFT Programme's five-point plan should improve patient safety and reduce litigation costs for the specialty.

Further opportunities

The opportunity values shown in **Table 5** are for illustration only.

Individual providers and clinicians should assess their own services to determine the unwarranted variation that exists and the associated opportunities. Their assessment will help them to prioritise the service changes that they wish to deliver. Individual providers may also have other opportunities that are not included here.

Table 5: Notional financial opportunity

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
Work with primary care colleagues to improve awareness of and access to alternative services *(Recommendation 5)* Opportunity = Reduce number of hospital first OP attendances *Base data: April 18 - Mar 19.* *Cost estimated based on Gastroenterology first outpatient attendance (18/19 ref costs uplifted to 20/21 prices)*	*Clinical view* 1% reduction in first outpatient attendances	7,200 first OPs	£1.29m	*Clinical view* 2% reduction in first outpatient attendances	14,300 first OPs	£2.56m

Table 5: Notional financial opportunity (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
Consider triaging solutions to direct referrals appropriately *(Recommendation 4)* Opportunity = Reduce outpatient follow up attendances (increase proportion discharged at first appointment) *Base data: April 18 - Mar 19.* *Cost estimated based on Gastroenterology follow up outpatient attendance (18/19 ref costs uplifted to 20/21 prices)*	*National average* 26.3% discharged at first attendance	45,300 follow up OPs	£6.21m	*Best quartile* 30.7% discharged at first attendance	63,700 follow up OPs	£8.73m
Improve testing for and treatment of H. pylori *(Recommendation 7)* Opportunity = Reduce duodenal ulcer admissions (Note: there would also be a reduction in gastroscopies. The financial impact related to this is assumed to be covered in the calculation below) *Base data: April 18 - Mar 19.* *Cost estimated based on FF04 HRGs (Duodenum Procedures) - average day case, elective and non-elective unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 6.9% duodenal ulcer admissions with HP	200 admissions	£1.03m	*Best quartile* 3.4% duodenal ulcer admissions with HP	400 admissions	£2.06m
Reduce usage of gastroscopy, particularly in younger patients *(Recommendation 7)* Opportunity = Reduce gastroscopy in patients under 55 *Base data: April 18 - Mar 19.* *Cost estimated based on FE12 HRGs (Gastroscopy) - average day case, elective and non-elective unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 32.8% gastroscopies in patients under 55s	14,800 admissions	£8.05m	*Best quartile* 28.7% gastroscopies in patients under 55s	34,600 admissions	£18.82m

Table 5: Notional financial opportunity (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
Improve pre-assessment and referral vetting for colonoscopies *(Recommendation 9)* Opportunity = Reduce colonoscopies in elderly frail patients *Base data: April 18 - Mar 19.* *Cost estimated based on FE31/32 HRGs (Colonoscopy) - average day case, elective and non-elective unit cost (18/19 ref costs uplifted to 20/21 prices) ****	*National average* 7.3% colonoscopies in patients aged 80 or over	5,600 colonoscopies	£3.46m	*Best quartile* 6% colonoscopies in patients aged 80 or over	10,400 colonoscopies	£6.43m
Improve access to prompt [colorectal cancer] diagnosis *(Recommendation 10)* Opportunity = Reduce number of patients admitted with colorectal cancer for the first time as an emergency *Base data: April 18 - Mar 19.* *Cost estimated based on FD HRGs (Malignant Gastro Disorders) HRGs - non-elective unit cost (18/19 ref costs uplifted to 20/21 prices) ****	*National average* 22.8% diagnosed with CRC as emergency admission	500 emergency admissions	£1.34m	*Best quartile* 20% diagnosed with CRC as emergency admission	1,100 emergency admissions	£2.95m
Review proactive management of alcoholic liver disease (ALD) to reduce proportion of emergency admissions *(Recommendation 11)* Opportunity = Reduce ALD emergency admissions *Base data: April 18 - Mar 19.* *Cost estimated on GC17 HRGs (Non-Malignant, Hepatobiliary Disorders) - non-elective unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 65.4% ALD emergency admissions	2,500 admissions	£4.53m	*Best quartile* 60.3% ALD emergency admissions	3,200 admissions	£5.79m

Table 5: Notional financial opportunity (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
Increase day case rates of variceal banding, reducing banding carried out as an emergency *(Recommendation 12b)* Opportunity = Reduce varices banding procedures performed as an emergency *Base data: April 18 - Mar 19.* *Cost estimated based on FE11 HRGs (Rubber Band Ligation) - non-elective unit cost less day case x3 unit cost (18/19 ref costs uplifted to 20/21 prices)* *Note: Clinical estimate is that banding would take place across approx 3 day case procedures*	*National average* 46% shift of variceal banding emergency admissions to day case	400 admissions (shift from 1 non-elective to 3 day cases)	£0.39m	*Best quartile* 38.2% shift of variceal banding emergency admissions to day case	700 admissions (shift from 1 non-elective to 3 day cases)	£0.68m
Improve the day case rate for paracentesis *(Recommendation 11e)* Opportunity = Reduce the number of ascites emergency admissions (by improving day case rate) *Base data: April 18 - Mar 19.* *Cost estimated based on FF53A HRG (minor abdo procedures) - non-elective less day case unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 27% shift of paracentesis emergency admissions to day case	3,200 admissions (shift from non-elective to day case)	£0.31m	*Best quartile* 34% shift of paracentesis emergency admissions to day case	5,000 admissions (shift from non-elective to day case)	£0.49m
Only perform ERCPs with therapeutic intent – not solely as a diagnostic test *(Recommendation 15a)* Opportunity = Shift proportion of ERCPs performed without any therapeutic procedure to alternative *Base data: April 18 - Mar 19.* *Cost estimated based on average GB10/11 HRGs (diagnostic ERCP) - all PODs, less GB12/13 HRGs (EUS) – day case unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 7.3% shift of diagnostic ERCPS to MRCP/ EUS	600 admissions	£0.18m	*Best quartile* 4.9% shift of diagnostic ERCPS to MRCP/ EUS	1,200 admissions	£0.37m

Table 5: Notional financial opportunity (continued)

Improvement	Standard			Target		
	Target	Activity opportunity*	Gross notional financial opportunity**	Target	Activity opportunity*	Gross notional financial opportunity**
Increase proportion of ERCPs done as a day case (reduce bed days) *(Recommendation 15e)* Opportunity = Reduce ERCP overnight stays *Base data: April 18 - Mar 19.* *Cost estimated based on GB06/GB10/GB11 HRGs (non-complex ERCP) - average elective less day case unit cost (18/19 ref costs uplifted to 20/21 prices)*	*National average* 14.2% ERCP overnight stays	900 admissions (shift from elective to day case)	£0.89m	*Best quartile* 6.3% ERCP overnight stays	1,700 admissions (shift from elective to day case)	£1.67m
Ensure there is sufficient proactive management for IBD patients, to reduce emergency admissions *(Recommendation 17)* Opportunity = Reduce IBD patients admitted as an emergency *Base data: April 18 - Mar 19.* *Cost estimated based on FD02 HRGs (IBD) - average non-elective unit cost (18/19 ref costs uplifted to 20/21 prices)*****	*National average* 10.9% IBD emergency admissions	4,100 admissions	£6.94m	*Best quartile* 9.1% IBD emergency admissions	6,600 admissions	£11.17m
Use drinking water instead of bottled sterile water for manual flushing of scopes *(Recommendation 23)* Opportunity = Reduce use of sterile water *Base data: Gastro Questionnaire (period April 18 - Mar 19)* *Cost estimated based on 2018/19.Provider self reported total spend on sterile water (75 responses), extrapolated to estimate total spend across all providers (uplifted to 20/21)*	*National average* 33% reduction in use of sterile water		£0.23m	*Best quartile* 50% reduction in use of sterile water		£0.34m
Total			**£34.85m**			**£62.06m**

It should be noted that the above calculations are based on trust recording and coding via HES.

* Activity opportunities are annual figures, based on one year of activity data (18/19). Unless specified activity that would be avoided is shown (for example, shift from non-elective to day case).

** Costing of financial opportunity: unless otherwise stated, cost estimates are based on national average 18/19 reference costs, uplifted to 20/21 pay and prices using tariff inflation.

*** Some additional costs may be incurred that have not been taken into consideration here, for example radiology due to increased scanning

**** In order to reduce overnight stays, additional IBD specialist nursing numbers will need to be increased in line with national standards. Additional costs related to this have not been taken into account in this calculation

About the GIRFT programme

Getting It Right First Time (GIRFT) is a national programme designed to improve medical care within the NHS.

Funded by the Department of Health and Social Care and jointly overseen by NHS England and NHS Improvement and the Royal National Orthopaedic Hospital NHS Trust, it combines wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are currently being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment. While the gains for each patient or procedure may appear marginal they can, when multiplied across an entire trust – and even more so across the NHS as a whole – deliver substantial cumulative benefits.

The programme was first conceived and developed by Professor Tim Briggs to review elective orthopaedic surgery to address a range of observed and undesirable variations in orthopaedics. In the 12 months after the pilot programme, it delivered an estimated £30m-£50m savings in orthopaedic care – predominantly through changes that reduced average length of stay and improved procurement.

The same model is now being applied to 40+ different areas of clinical practice. It consists of four key strands:

- A broad data gathering and analysis exercise, performed by health data analysts, which generates a detailed picture of current national practice, outcomes and other related factors.
- A series of discussions between clinical specialists and individual hospital trusts, which are based on the data – providing an unprecedented opportunity to examine individual trust behaviour and performance in the relevant area of practice, in the context of the national picture. This then enables the trust to understand where it is performing well and what it could do better – drawing on the input of senior clinicians.
- A national report, that draws on both the data analysis and the discussions with the hospital trusts to identify opportunities for NHS-wide improvement.
- An implementation phase where the GIRFT team supports providers to deliver the improvements recommended.

Implementation

GIRFT works in partnership with NHSE/I regional teams to help trusts and their local partners to implement improvements and address the issues raised in both the trust data packs and the national specialty reports. The GIRFT team provides support at a local level, advising on how to reflect the national recommendations into local practice and supporting efforts to deliver any trust specific recommendations emerging from the GIRFT visits. GIRFT also helps to disseminate best practice across the country, matching up trusts who might benefit from collaborating in selected areas of clinical practice. Through all its efforts, local or national, the GIRFT programme strives to embody the 'shoulder to shoulder' ethos that has become GIRFT's hallmark, supporting clinicians nationwide to deliver continuous quality improvement for the benefit of their patients.

Glossary

Clinical and NHS terms

Advice and Guidance (A&G)
A service that enables primary care clinicians to ask a consultant or other secondary care clinician for advice on referrals.

Ascites
An abnormal build-up of fluid in the abdominal cavity.

Best Practice Tariff (BPT)
A payment model designed to provide a financial incentive to promote improved and consistent standards across services.

Biliary sepsis
Infection of the biliary system.

Biliary stent
A small tube placed into a bile duct to keep it open.

Biologic medicine
A type of medicine made by living cells, used to treat various conditions including Inflammatory Bowel Disease.

Biopsy
A biopsy involves taking a small sample of tissue for further examination.

Biosimilar medicine
A medicine that is similar to a particular biologic medicine in terms of its efficacy and safety, but made in a slightly different way.

Block contract
A system of payment for NHS trusts where the trust is paid for a providing a service, as opposed to Payment by Results (see below).

Bowel scope
See 'Endoscopy' below.

Case mix
The type or mix of patients, categorised by a variety of measures, including: demographics, disease type and severity, and the diagnostic or therapeutic procedures performed.

Category Towers
The procurement function of the NHS Supply Chain operating model. There are 11 Category Towers, with each one specialising in a particular area of products or services, for example medical equipment.
www.supplychain.nhs.uk/sccl

Catheter Related Blood Stream Infections (CRBSIs)
A complication that can occur with Total Parenteral Nutrition, where there is an infection associated with the line delivering the patient's nutrition into a vein. Often known as a 'line infection'.

Clinical Commissioning Groups (CCGs)
Clinically-led statutory NHS bodies responsible for the planning and commissioning of healthcare services for their local area.
www.nhscc.org/ccgs/

Clinical Research Network (CRNs)
Networks that co-ordinate and support the delivery of clinical research in healthcare.

Clinician
A trained health care professional (for example, a doctor or nurse) who is directly involved in patient care.
A clinician may diagnose, treat and be responsible for patient care.

Colectomy
Surgical removal of all or (more commonly) part of the bowel.

Colonoscopy
See 'Endoscopy' below.

Commissioning
The various processes that identify the health needs of a population, such as a local area, and purchase services to meet those needs.

Comorbidity
The simultaneous presence of two or more chronic (long-term) diseases or conditions.

COVID-19
A new pandemic disease in 2020, caused by a new strain of coronavirus first identified in 2019.

CT Virtual Colonoscopy (CTVC)
A specialised CT scan used to check for signs of disease in the colon.

Day case
When a patient is admitted electively for care that day, with the use of a hospital bed or recliner chair, but without an overnight stay.

Dual accredited
A doctor who has trained in two specialties. Gastroenterologists are often dual accredited in general medicine as well as gastroenterology.

Dyspepsia
The medical name for indigestion.

Elective (surgery or care)
Surgery or care that is planned rather than carried out as an emergency (non-elective).

Electronic Referral System
An online system, previously known as Choose & Book, that allows clinicians and patient to find appointments for clinics or procedures. Please note in this report we use the abbreviation ERS to refer to an Endoscopy Reporting System, not an Electronic Referral System.

Endoscopic Retrograde Cholangio-Pancreatography (ERCP)
A procedure combining endoscopy and X-ray, used to treat stone disease and other problems with the biliary system.

Endoscopic Ultrasound Scan (EUS)
A procedure combining endoscopy and ultrasound. The clinician uses an endoscope with an ultrasound probe built into it to examine the digestive tract and surrounding tissue or organs.

Endoscopy
An endoscopy is a procedure where clinicians look at organs inside the body using an endoscope – a long, thin, flexible tube that has a light and camera at one end. Endoscopy can be used to diagnose or to treat disease.

Different kinds of endoscopy have different names:

- gastroscopy looks at the food pipe (oesophagus), stomach and upper small bowel (duodenum);
- sigmoidoscopy looks at the lower part of the colon – this is generally known as a flexible sigmoidoscopy, and is also known as a bowel scope when it is performed as part of the National Bowel Cancer Screening Programme;
- colonoscopy looks at the whole of the large bowel or colon.

A clinician who carries out an endoscopy is an endoscopist.

Faecal Calprotectin test
A test used to measure inflammation, to detect or monitor Inflammatory Bowel Disease.

Faecal Immunochemical Test (FIT, qFIT)
A test to detect blood in a patient's stool, which may be an early sign of bowel cancer. The abbreviation qFIT (for Quantitative Faecal Immunochemical Test) is also used.

Faecal Occult Blood Test (FOB, gFOBT)
A test to detect blood in a patient's stool, which may be an early sign of bowel cancer. The abbreviation gFOBT (for guaiac-based Faecal Occult Blood Test) is also used.

Flexible sigmoidoscopy
See 'Endoscopy' above.

Fluoroscopy
An X-ray of a moving part, like an X-ray video.

Gastroscopy
See 'Endoscopy' above.

Healthcare Resource Group (HRG)
Standard groupings of clinically-similar treatments that use common levels of healthcare resource. HRGs help organisations to understand their activity in terms of the types of patients they care for and the treatments they undertake.

Hepatology or Hepato-Pancreato-Biliary (HPB)
The branch of gastroenterology that covers the liver, pancreas and biliary system.

Hepatitis
Inflammation of the liver. It is usually the result of a viral infection, an auto-immune condition, or liver damage caused by drinking harmful levels of alcohol.

Hospital Episode Statistics (HES)
Data on all admissions, outpatient appointments and A&E attendances at NHS hospitals in England. HES data aim to collect a detailed record for each 'episode' of admitted patient care commissioned by the NHS and delivered in England, by either an NHS hospital or the independent sector. HES data are used in calculating what hospitals are paid for the care they deliver.

Hub and spoke

A network arrangement between larger and smaller service providers in a geographic area. Hub and spoke networks can be either formal or informal:

- formal means there is a contractual agreement in place;
- informal means there is a shared understanding of how the network will operate, but no contractual agreement.

Inflammatory Bowel Disease (IBD)

A disease where the gastrointestinal tract is chronically inflamed. It includes two main conditions: Crohn's disease and ulcerative colitis.

In-reach

Where clinicians see patients with symptoms covered by their specialty but outside of their own wards. For example, where a gastroenterologist sees a patient with gastrointestinal symptoms on an acute assessment ward.

Integrated care systems (ICS)

NHS organisations, in partnership with local councils and others, taking collective responsibility for managing resources, delivering NHS standards, and improving the health of the population they serve.

www.england.nhs.uk/integratedcare/integrated-care-systems

Knowledge Management System (KMS)

Searchable online system allowing useful information (such as guidelines, audit tools and policies) to be uploaded, shared and downloaded.

Laparoscopy / laparoscopic surgery

Keyhole surgery, where the surgeon inserts instruments and a flexible camera through a small incision in the skin to look into the abdomen.

Length of stay

The length of an inpatient episode of care, calculated from the day of admission to day of discharge, and based on the number of nights spent in hospital.

Luminal gastroenterology

The branch of gastroenterology that covers the main digestive tract.

Magnetic Resonance Cholangio-Pancreatography (MRCP)

A non-invasive scan of the bile ducts using an MRI scanner.

Model Hospital

A free digital tool provided by NHS Improvement to enable trusts to compare their productivity and identify opportunities to improve. The tool is designed to support NHS provider trusts to deliver the best patient care in the most efficient way.

https://model.nhs.uk

Multidisciplinary team (MDT)

A team of healthcare professionals from different disciplines.

National Institute for Health and Care Excellence (NICE)

Provides evidence-based guidance, advice, quality standards, performance metrics and information services for health, public health and social care.

www.nice.org.uk

NHS Long Term Plan

A long term programme designed to prepare the NHS for the future.

www.longtermplan.nhs.uk/

NHS National Bowel Cancer Screening Programme (NBCSP)

National screening programme designed to save lives by preventing bowel cancer from developing in the first place (by removing polyps), or detecting bowel cancer at an earlier, more treatable stage.

See *The NHS National Bowel Cancer Screening Programme* on page 27.

NHS Resolution (formerly NHS Litigation Authority)

Provides expertise to the NHS to resolve negligence concerns, share learning for improvement and preserve resources for patient care. NHS Resolution is an 'arm's length' body of the Department of Health and Social Care. This means it is an independent body, but can be subject to ministerial direction.

www.resolution.nhs.uk

NHS Supply chain

An organisation that provides healthcare products and supply chain logistics to the NHS, including procurement, logistics, e-commerce, and customer and supplier support.

www.supplychain.nhs.uk

Non-elective (surgery or care)
Surgery or care that is carried out as an emergency rather than being planned (elective).

Oesophagus
The medical name for the food pipe or gullet.

Paracentesis
A procedure to drain fluid from the abdomen (ascites).

Payment by Results (PbR)
The payment system in England used by healthcare commissioners to pay healthcare providers for each patient seen or treated. The system takes account of the complexity of the patient's healthcare needs. This is also known as the National Tariff.

Percutaneous Endoscopic Gastrostomy (PEG)
A feeding tube that is placed into the stomach through the abdominal wall using a flexible camera (endoscope).

Programmed Activities (PAs)
Activities that form part of job plans. For example, leadership PAs will be time on a lead consultant's job plan dedicated to leading a service.

Prophylactic treatment / Prophylaxis
Treatment designed to prevent a disease from happening in the first place, or from recurring.

Proton Pump Inhibitors (PPIs)
Commonly used medication to help reduce acid production to improve digestive symptoms such as reflux or indigestion.

Reference costs
Reference costs are the average unit cost to the NHS of providing defined services to NHS patients in England in a given financial year. They show how NHS providers spend money to provide healthcare to patients. NHS providers submit reference costs annually.

Reflux
Pain caused by stomach acid leaking back up into the oesophagus – often known as heartburn.

Specialty doctors and Associate Specialists (SAS)
Hospital medical doctors with at least four years of postgraduate experience, two of which are in their chosen specialty.

Sigmoidoscopy
See 'Endoscopy' above.

Specialist Screening Practitioner (SSP)
A nurse who has taken on additional training and qualification in advanced level skills and insights on bowel cancer screening developments, treatment and support.

Spontaneous Bacterial Peritonitis (SBP)
A condition where a bacterial infection develops in ascitic fluid in the abdomen, but there is no obvious source for the infection.

Symptomatic
Showing symptoms. We differentiate between symptomatic patients and those who are part of a screening programme.

Total Parenteral Nutrition (TPN)
A method of supported nutrition where a patient receives all their nutrition through a line inserted into a vein (a vascular access device).

Transnasal gastroscopy
A form of gastroscopy where a narrow tube is passed through the patient's nose, rather than mouth, bypassing their gag reflex.

Unmapped medicines
Medicines with unclear coding in the Define© pharmacy system.

Varices
Enlarged veins in the oesophagus or stomach, which can bleed easily.

Waiting List Initiative (WLI)
Extra sessions of clinical activity, paid at an enhanced rate, used by trusts to provide additional capacity and tackle waiting lists.

Zero day length of stay
An admission that does not require an overnight stay in hospital.

Organisations

The Association of Coloproctology of Great Britain and Ireland (ACPGBI)
www.acpgbi.org.uk

BAPEN (British Association of Parenteral and Enteral Nutrition – always referred to as BAPEN)
www.bapen.org.uk/

British Association for the Study of the Liver (BASL)
www.basl.org.uk

British Liver Trust (BLT)
https://britishlivertrust.org.uk/

British Society of Gastroenterologists (BSG)
www.bsg.org.uk/

British Society of Gastrointestinal and Abdominal Radiology (BSGAR)
www.bsgar.org

Care Quality Commission (CQC)
www.cqc.org.uk

Crohn's and Colitis UK (CCUK)
www.crohnsandcolitis.org.uk/

Getting It Right First Time (GIRFT)
See *About the GIRFT programme* on page 151.
www.gettingitrightfirsttime.co.uk

Guts UK
https://gutscharity.org.uk/

Health Education England (HEE)
www.hee.nhs.uk

IBD UK
https://ibduk.org/ibd-standards

Improving Quality in Liver Services (IQILS)
www.iqils.org/

The King's Fund
www.kingsfund.org.uk

National Institute for Health and Care Excellence (NICE)
www.nice.org.uk

National Institute for Health Research (NIHR)
www.nihr.ac.uk

Royal College of General Practitioners
www.rcgp.org.uk

Royal College of Physicians (RCP)
www.rcplondon.ac.uk/

The Royal College of Physicians Joint Advisory Group on Gastrointestinal Endoscopy (JAG)
www.thejag.org.uk/

Abbreviations

See above for explanations of terms.

A&G: Advice and Guidance

AGP: Aerosol Generating Procedure

ALD: Alcoholic Liver Disease

ARBI: Alcohol-Related Brain Injury

ASL: Anaesthetic-Supported List

BCSA: Bowel Cancer Screening Accreditation

BPT: Best Practice Tariff

CAS: Clinical Assessment Service

CNS: Clinical Nurse Specialist

CRBSI: Catheter Related Blood Stream Infections

CTVC: CT Virtual Colonoscopy

DCC: Direct Clinical Care

DNA: Did Not Attend

EMS: Endoscopy Management System

EPMA: Electronic Prescribing and Medicines Administration

ERCP: Endoscopic Retrograde Cholangio-Pancreatography

EUS: Endoscopic Ultrasound Scan

ERS: Endoscopy Reporting System or Electronic Referral System. In this document we have always written out Electronic Referral System in full to avoid confusion

FOB, FOBT: Faecal Occult Blood Test

FIT: Faecal Immunochemical Test

GA: General Anaesthetic

GI: Gastrointestinal

HES: Hospital Episode Statistics

HPB: Hepato-Pancreato-Biliary

IBD: Inflammatory Bowel Disease

IBS: Irritable Bowel Syndrome

KMS: Knowledge Management System

KPI: Key Performance Indicator

MDT: Multidisciplinary team

MRCP: Magnetic Resonance Cholangio-Pancreatography

NAFLD: Non-Alcoholic Fatty Liver Disease

NBCSP: NHS National Bowel Cancer Screening Programme

NED: National Endoscopy Database

NPSA: National Patient Safety Agency

OGD: Oesophago-Gastro-Duodenoscopy

ONS: Oral Nutritional Supplements

OP: Outpatient

PAs: Programmed Activities

PCN: Primary Care Network

PEG: Percutaneous Endoscopic Gastrostomy

PPE: Personal Protective Equipment

PPI: Proton Pump Inhibitor

PSI: Patient Safety Incident

qFIT: Quantitative Faecal Immunochemical Test

RAS: Referral Assessment Service

RCA: Root Cause Analysis

RTT: Referral To Treatment

SAS: Specialty and Associate Specialist doctors (see above)

SBP: Spontaneous Bacterial Peritonitis

SCS: Spend Comparison Service

SI: Serious Incident

SPA: Supporting Professional Activity

SSP: Specialist Screening Practitioner

SUI: Serious Untoward Incident

TPN: Total Parenteral Nutrition

WLI: Waiting List Initiative

WTE: Whole Time Equivalent

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This report is the culmination of a huge team effort, with all those involved too numerous for me to mention individually. However, you know who you are and I am so incredibly grateful to you all. The GIRFT process is a highly collaborative one, which helps create a wonderfully dynamic TEAM – Together Everyone Achieves More!

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Beverly Oates

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- Diagnostic Imaging Dataset (DID);
- Civil Registration of Deaths (CRD);
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You can also follow us on Twitter @NHSGIRFT and
LinkedIn: www.linkedin.com/company/getting-it-right-first-time-girft

The full report and executive summary are also available to download as
PDFs from: www.GettingItRightFirstTime.co.uk

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