NICE National Institute for Health and Care Excellence

NICE impact Diagnostic pathology

May 2021

Contents

Insight from Dr Michael Osborn

Dr Michael Osborn is the president of the Royal College of Pathologists.

The Royal College of Pathologists
Pathology: the science behind the cure

"Pathology encompasses 17 specialties and impacts on all areas of healthcare. High-quality, timely pathology underpins most patient treatment.

In addition, pathology is one of the fastest advancing areas in healthcare particularly in the realms of molecular and genomic medicine, digital pathology and the use of artificial intelligence, as well as through developments in more traditional areas such as markers of disease. We owe it to our patients to provide a comprehensive, fast, accurate, pathology service and NICE is uniquely placed to help with this."

Why focus on diagnostic pathology?

Pathology tests involve taking and analysing samples of body fluids or tissues. Analysis may be performed mechanically, chemically or by observation (for example through a microscope). Usually, the analysis is carried out in a pathology laboratory, but sometimes it can be done with the person present (point-of-care testing).

NHS England's The Digital First pathology report (2014) estimated that around 95% of clinical pathways rely on access to pathology services. Pathology tests are crucial to the diagnosis of many conditions. In particular, they play an important role in the prevention and early detection of cancer. Early detection improves the chances of successful treatment, saves lives and is more cost effective for the NHS.

1.2 billion

pathology tests are estimated to be carried out each year in England

Source: NHS England's Diagnostics: recovery and renewal report, 2020

In 2017, NHS Improvement committed to consolidating pathology services in England by developing 29 pathology network hubs, with the aim of reducing unwarranted variation and costs. The NHS Long Term Plan supported setting up the pathology networks to improve accuracy and turnaround times on tests, reduce unit costs and make best use of the expanding workforce. Pathology networks are now in place across England.

Our diagnostics guidance evaluates new and innovative diagnostic technologies. This includes all types of measurements and tests used to evaluate a person's condition, including pathology tests. Our diagnostics guidance is also embedded within the pathways in our guidelines. Unlike previous impact reports, this report does not follow a single pathway. There is a lack of diagnostic pathology data, so we have focused on our guidance where uptake data is available on recommended diagnostic pathology tests.

How NICE identify and support adoption of new diagnostics

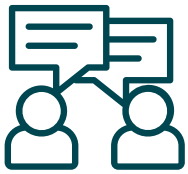
Anyone can ask NICE to consider producing guidance or advice on a device, diagnostic or digital technology. Our diagnostics assessment programme produces guidance that evaluates innovative diagnostic technologies.

Diagnostic technologies have many uses, including:

- screening tests to look for conditions in people without specific signs or symptoms
- looking for clues to determine the cause of symptoms
- ruling in or out a specific disease
- staging or additional testing to assess severity or progression of a disease
- monitoring to determine changes in a condition

Our adoption team supports the uptake of new technologies recommended by NICE. They create an adoption report for all diagnostics guidance in development to understand the current context in clinical practice. The team also identifies potential levers and barriers to widescale adoption of the technology. They use uptake and clinical engagement data to provide system learning and promote the adoption of new technologies.

Our adoption team help with the adoption of NICE-recommended medical technologies



- **engaging with clinical teams, commissioners, patient groups and industry**
- **gathering real-world experiences from health and social care organisations**
- **identifying adoption barriers and solutions**

The adoption team also supports the NHS Accelerated Access Collaborative (AAC). The AAC brings together industry, government, regulators, patients, and the NHS to remove barriers and accelerate the introduction of new treatments and diagnostics. A range of activities are carried out to support stronger adoption and spread of proven innovations with NICE approval.

The NHS Accelerated Access Collaborative Rapid Uptake Products programme has been designed to support stronger adoption and spread of proven innovations

The Rapid Uptake Products programme identifies and supports products with NICE approval that support the NHS Long Term Plan's key clinical priorities but have lower than expected uptake.

Insight from Dr Michael Osborn

"The work of NICE to identify and highlight the role of new diagnostic tests, techniques, and technologies and to champion useful new additions to pathology is extremely helpful. However, some areas particularly involving new technologies do not fit neatly into a single diagnostic pathway and NICE assessment strategies must reflect this. Other areas, such as artificial intelligence, are on the verge of significant developments, which will need rigorous evaluation. NICE is uniquely placed to help with this, but it will require good collaboration and engagement with pathologists, industry, and research communities."

Uptake of NICE-recommended pathology diagnostics

Pathology diagnostics supported by the Accelerated Access Collaborative

In 2018/19 the NHS Accelerated Access Collaborative (AAC) identified 2 of our diagnostic guidance products, which include pathology-based tests, as rapid uptake products:

- high-sensitivity troponin (HST) tests to rule out non-ST-segment-elevation myocardial infarction (NSTEMI)
- placental growth factor (PlGF)-based tests for suspected pre-eclampsia.

High-sensitivity troponin tests

When someone comes to a hospital emergency department with acute chest pain, tests are needed to work out if they are having a heart attack and, if so, the type and treatment needed. Older-style troponin tests take 10 to 12 hours, so people need to be admitted while they wait for the results.

Our diagnostics guidance on high-sensitivity troponin tests for the early rule out of NSTEMI recommends tests to help to rule out a type of heart attack called a non-ST-segment-elevation myocardial infarction (NSTEMI) in 20 minutes or less, with a second test for people at low risk if the first test is positive.

"I was given my first troponin test in A&E and the score really put me on edge. I knew that having a high score was not good news and if the next test was higher, I'd be staying in hospital. They took me to an empty ward for the second test. Being on the ward made me feel much more comfortable and the second result thankfully went in the right direction."
Antony, aged 49

High-sensitivity tests can mean people with normal troponin levels do not need to be admitted to hospital, and those with a confirmed NSTEMI can get earlier treatment. High-sensitivity troponin tests are no longer a rapid uptake product for 2020/21, however members of the national working group remain available for implementation support. The Academic Health Science Network for the North West Coast are sharing their insights and learning, and can provide a data collection tool for trusts to evaluate their implementation of these pathways.

86%

of eligible people had access to high-sensitivity troponin tests
(estimated by the Accelerated Access Collaborative in 2019/20)

We have produced an adoption support resource for high-sensitivity troponin testing. This provides practical information and advice to NHS organisations on adopting these tests, including tools developed by organisations that have already incorporated the tests in their cardiac chest pain pathways.

Using high-sensitivity troponin tests in practice

The following shared learning examples describe how 2 NHS trusts adopted these tests. The Royal Wolverhampton NHS Trust updated their chest pain pathway to incorporate the use of high-sensitivity troponin tests. The percentage of chest pain patients admitted to the hospital decreased from 61% to 38%, and the mean length of stay reduced from around 23 hours to 9.5 hours.

Belfast Health and Social Care Trust piloted a 1-hour rule-out protocol using a high-sensitivity troponin test. Results showed that this protocol was appropriate and safe for use in their trust, meaning that people who had NSTEMI ruled out were categorised as 'go home' and could be discharged more quickly. This category applied to 70% of people tested during the pilot.

Placental growth factor (PlGF)-based tests for suspected pre-eclampsia

Pre-eclampsia is a potentially serious complication of some pregnancies. If it is found, the pregnant woman needs to be referred to a specialist and admitted to hospital for monitoring. It is thought to be related to problems with the development of the placenta and is characterised by high blood pressure and proteinuria. If pre-eclampsia is not diagnosed and closely monitored, it can lead to potentially life-threatening complications including eclampsia.

Our updated guideline on hypertension in pregnancy, along with our diagnostics guidance on PlGF-based testing recommend a blood test for pregnant women with suspected pre-eclampsia who are between 20 weeks and 34 weeks plus 6 days to help rule out the condition. This could result in a faster and more accurate diagnosis of pre-eclampsia, and better risk assessment for adverse outcomes in pregnant women with suspected pre-eclampsia. It could also allow pregnant women who have had pre-eclampsia ruled out with a PlGF-based test to return to community care instead of being admitted to hospital for observation.

Using placental growth factor-based tests in practice

A shared learning example from Lancashire Teaching Hospitals NHS Foundation Trust describes how their biochemistry department worked closely with the obstetrics team to implement the PIGF-based tests into routine practice.

The biochemistry service is available 24/7, with a 4-hour turnaround time offered so that clinical decisions could be made while the woman is on the hospital site. Midwives take routine bloods for patients who present with hypertension in pregnancy, and the addition of the PIGF-based tests to these requests does not add to the workload. Audit data shows that use of the test allowed 100% of mothers, without any other obstetric complications and a result of less than 38, to be discharged home safely, without the need for admission to hospital.

In 2019, the NICE Implementation Collaborative worked with the Oxford Academic Health Science Network to produce the PlGF-based testing for pre-eclampsia implementation support pack to help trusts implement the test. We have also produced an adoption support resource for PIGF-based testing. This provides practical information for clinical staff, commissioning and those managing maternity services.

60 hospitals had access to placental growth factor-based tests in 2019/20

1 hospital had access to placental growth factor-based tests in 2018/19

Source: Accelerated Access Collaborative: Our year in focus 2019/20

The rapid increase in uptake of PlGF-based tests means that more people are getting a faster, more accurate diagnosis, with fewer unneccessary admissions, leading to reduced costs for the NHS. The opportunity to adopt PlGF-based testing was available to all maternity services in England during 2019/20 and 2020/21 under Innovation and Technology Payment and Rapid Uptake Product. PlGF-based testing is included in the MedTech funding mandate for 2012/22.

Insight from Dr Michael Osborn

"These diagnostic tests highlight that through objective assessment and the championing of suitable pathology-based diagnostics NICE has a pivotal role in improving pathology services, streamlining healthcare and so maximising the quality of patient care we can provide. The path to NICE recommendation must however include close collaboration with the workforce to ensure any recommendations can be realistically implemented in a cost-effective manner. Assessments made in isolation away from the real world setting may identify useful diagnostic techniques, but unless such diagnostics can be easily, economically and efficiently rolled out into day-to-day practice, they risk being challenging to implement."

Other NICE-recommended pathology diagnostics

Uptake data is not collected for many of our pathology-based recommendations, however we do have data available on the following NICE-recommended tests.

Faecal immunochemical test for colorectal cancer

Our diagnostics guidance on faecal immunochemical tests helps primary care clinicians decide who to refer for suspected colorectal (bowel) cancer to have a colonoscopy. It is used for people without rectal bleeding, who have unexplained symptoms but do not meet the criteria for referral outlined in our guideline on suspected cancer. In 2020, NHS England's specialty guide for managing people with lower gastrointestinal symptoms during the COVID-19 pandemic set out a change to the pathway. The new pathway uses the faecal immunochemical test (FIT) to help clinicians prioritise suspected cancer referrals.

The faecal immunochemical test is an important triage tool to prioritise people with an increased likelihood of serious disease.
Source: NHS England's Diagnostics: recovery and renewal report

The FIT has been developed as an alternative to guaiac-based faecal occult blood tests, because the FIT can detect small amounts of blood in faeces, which can be an early sign of colorectal cancer.

We have produced an adoption support resource for faecal immunochemical testing. This provides practical information for primary care providers.

In June 2019, FIT replaced the guaiac faecal occult blood test as the primary screening test used in the bowel cancer screening programme for people aged 60 to 74 in England. Uptake of the screening test increased from 56% in 2015/16 to 66% in 2019/20. The NHS Long Term Plan highlights that use of the FIT has improved uptake rates, including groups with low participation rates such as men, people from black, Asian and minority ethnic groups, and people living in more deprived areas.

Faecal calprotectin tests for inflammatory diseases of the bowel

Our guidance on faecal calprotectin diagnostic tests helps GPs distinguish between inflammatory bowel disease (IBD) or irritable bowel syndrome (IBS) in adults with recent onset lower gastrointestinal symptoms. IBS should be managed in primary care, however IBD requires further investigation in secondary care. Diagnosis can often be difficult as symptoms for IBS and IBD are similar.

Using faecal calprotectin in practice

A shared learning example from Yorkshire and Humber Academic Health Science Network (runner up finalist in the 2018 NICE Shared Learning Awards) describes how they developed a new faecal calprotectin pathway to support implementation of our guidance.

The cut off for the faecal calprotectin assay in our guidance (50µg/g) increased the number of referrals to secondary care. This new pathway addressed this issue by increasing the cut off to 100µg/g, and providing risk assessment information to support GPs with clinical decisions on when and how to refer a patient.

Adherence to the pathway was at least 85%. Adherence to the previous pathway used in Leeds was 11%.

The health economic evaluation demonstrated that the improved pathway saves £100,000 to £160,000 per 1000 patients tested.

The pathway optimised the patient pathway to identify real savings to the health economy. This has resulted in better patient experience, reduction in the number of unnecessary referrals and a reduction in costs to the health system.

After implementing the new faecal calprotectin pathway (highlighted above), Yorkshire and Humber Academic Health Science Network successfully further rolled out the pathway to 15 clinical commissioning groups (CCGs) by 2020. It was estimated that the CCGs using the pathway will save approximately £220,000 a year by preventing unnecessary and expensive colonoscopies. The pathway is part of the national algorithm endorsed by NICE and shared by NHS England.

Prenatal testing for fetal RHD genotype

A new prenatal test for fetal RHD genotype will help to ensure that only pregnant women who need anti-D prophylaxis receive it, preventing unnecessary treatment and protecting stocks of anti-D immunoglobulin.

Routine antenatal anti-D prophylaxis for all women who are rhesus D negative is current practice in most NHS maternity services. This reduces the risk of complications in pregnancy and is supported by our technology appraisal guidance on routine antenatal anti-D prophylaxis.

Our diagnostics guidance on high-throughput non-invasive prenatal testing (NIPT) for fetal RHD genotype states that about 40% of women who are rhesus D negative carry a rhesus D negative baby and do not need anti-D immunoglobulin if the rhesus D status of the baby can be determined. NIPT is recommended to help decide whether anti-D immunoglobulin prophylaxis is required to prevent complications such as severe fetal anaemia, fetal heart failure, fluid retention and swelling, and intrauterine death.

NIPT will help reduce unnecessary treatment with anti-D immunoglobulin in pregnant women, and reduce resource use by only giving it to those who need it.

Adopting prenatal testing for fetal RHD genotype

Shared learning examples from 3 different trusts describe how they adopted prenatal testing.

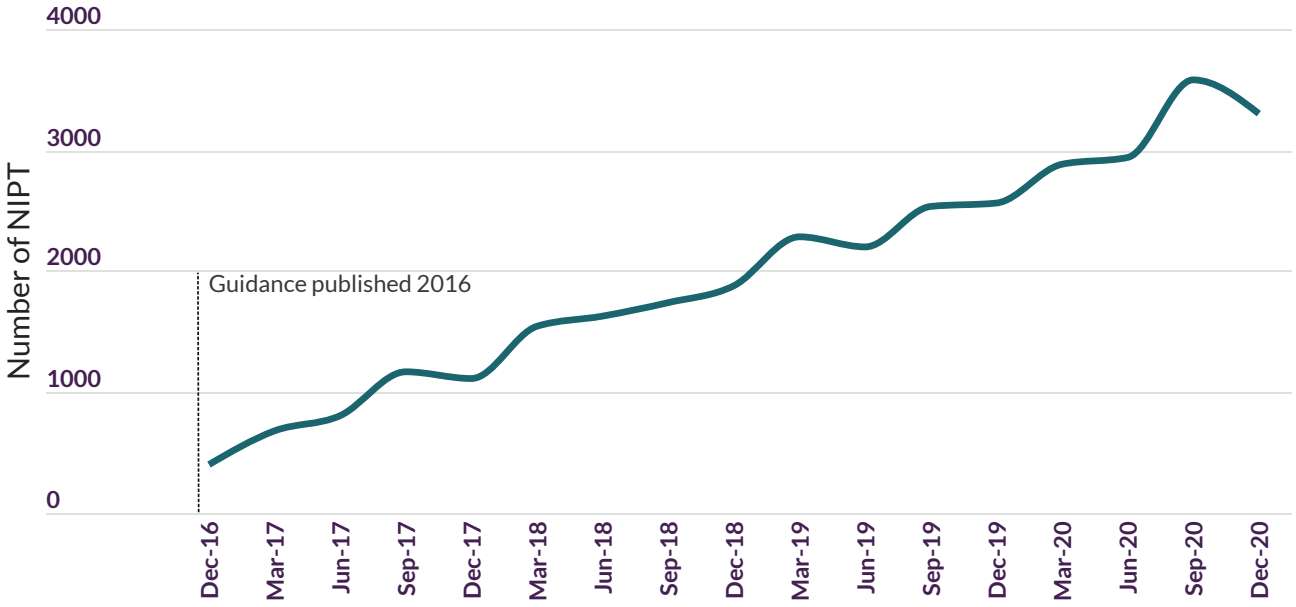
A shared learning example from University Hospitals Bristol NHS Foundation Trust, adopted prenatal testing and shows how implementation of this test in 2017 reduced anti-D immunoglobulin use by 29%. This equates to 35% of rhesus D negative women who did not receive unnecessary anti-D immunoglobulin injection in their pregnancy.

An example from Taunton and Somerset NHS Foundation Trust, describes how prenatal testing resulted in a 40% reduction in anti-D immunoglobulin use in July to December 2015, compared with July to December 2016.

Finally, Yeovil District Hospital NHS Foundation Trust, adopted prenatal testing and predicted that 40% of women would have a rhesus D negative result. From the 95 women who had their babies, 42% received a rhesus D negative result.

We have produced an adoption support resource for prenatal testing for fetal RHD genotype to provide practical information and advice to maternity services, including how sites have implemented the test into their care pathways.

Non-invasive prenatal testing increased since the NICE guidance published in 2016



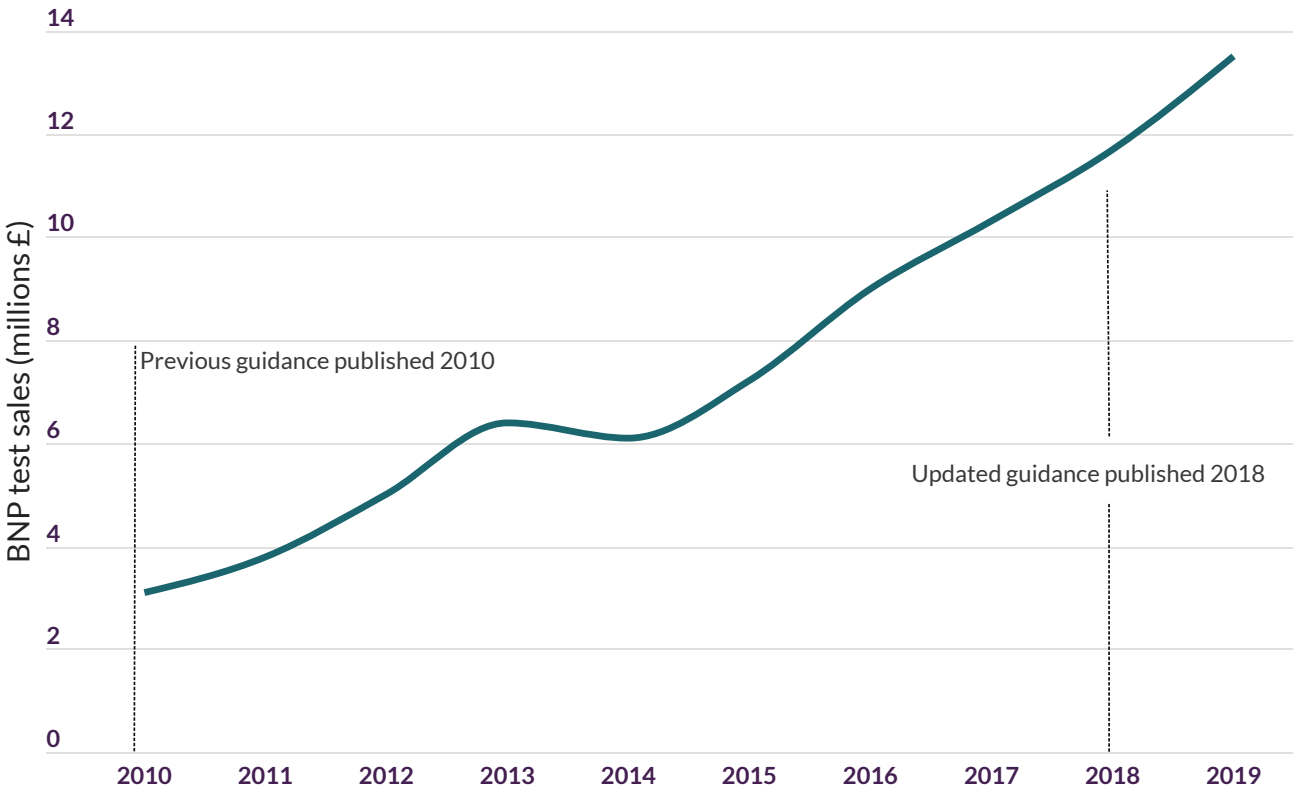
Source: NHS Blood and Transplant

Natriuretic peptide testing for heart failure

Natriuretic peptide testing (B-type natriuretic peptide [BNP] or N-terminal pro-B-type natriuretic peptide [NT-proBNP]) is an important tool for rapidly assessing adults presenting with possible heart failure. It can be used to rule out a diagnosis of heart failure or to decide if further investigation with echocardiography is needed. It can save time and distress for people presenting with suspected heart failure.

Our guideline on chronic heart failure, published in 2018, recommends that people with suspected chronic heart failure should have NT-proBNP measured. This updates the 2010 guideline, which recommended measuring either BNP or NT-proBNP. In addition, our guideline on acute heart failure and quality standard on acute heart failure recommend measuring either BNP or NT-proBNP in people presenting with new suspected acute heart failure. There is a lack of uptake data, however the British In Vitro Diagnostics Association have provided BNP sales data.

Rapid increase in B-type natriuretic peptide (BNP) tests sold over time



Source: British In Vitro Diagnostics Association
(The sales data does not separate BNP and NT-proBNP)

The rapid increase in the number of BNP tests sold suggests an increased use of this test for people with suspected heart failure. However, our discussions with stakeholders and local data collection have highlighted that there is variable availability of the NT-proBNP test.

To try and encourage adoption, we facilitated 3 meetings of a heart failure group between 2018 and 2020. The group included key stakeholders, including professional and patient groups. Discussions focussed on identifying challenges around uptake of the NT-proBNP test in primary care. Members identified the 2 main challenges as variable commissioning of the test and variation in primary care referrals for testing when symptoms are present.

We also published a chronic heart failure: diagnosis visual summary to help clinicians with which tests to offer when diagnosing heart failure following our pathway. We will continue to focus our implementation efforts on increasing uptake of NT-proBNP in primary care. We highlight this gap in uptake in the 'What is NICE doing next?' section.

Using NT-proBNP in secondary care

A shared learning example from Brighton and Sussex University Hospitals NHS Trust describes their quality improvement project to reduce inappropriate use of NT-proBNP in the heart failure diagnostic pathway in secondary care.

Education sessions were carried out, including posters, slide packs, real-world data and practical examples of how NT-proBNP fits into the NICE diagnostic pathway for heart failure.

Audit data identified 191 NT-proBNP tests from April to August 2019, and showed that 87 out of 191 (46%) were not following the appropriate pathway. Unnecessary echocardiograms were carried out when NT-proBNP test results were normal and NT-proBNP tests were repeated in hospital when heart failure had already been diagnosed. This ongoing project has raised awareness of how to use NT-proBNP and helped to embed it in practice.

Follicle-stimulating hormone test for diagnosing menopause

Levels of follicle-stimulating hormone (FSH) in the blood vary according to a woman's age. Measuring FSH levels may be helpful in women under 45 if premature menopause is suspected. However, in the years leading up to menopause FSH fluctuates considerably, so measuring FSH in women over 45 is not helpful in diagnosing menopause.

Our guidance on menopause: diagnosis and management recommends using the FSH test to diagnose menopause only in women aged 40 to 45 years with menopausal symptoms, including a change in their menstrual cycle, or in women aged under 40 years in whom menopause is suspected.

We are working with the NHS England Sustainable Healthcare team on a national menopause programme to define the optimal pathway in line with our guidance.

Putting guidance on FSH testing into practice

A shared learning example from York Teaching Hospital NHS Foundation Trust describes how our guidance on appropriate FSH testing has been implemented. Strategies to reduce inappropriate FSH requests for women aged over 45 were implemented. This included a GP information sheet, a pop-up message added to the electronic pathology ordering system and coded comments added to reports.

Savings could be made through disinvestment as follicle-stimulating hormone testing in women over 45 does not improve menopause management

At 6 months following the changes, FSH requests in women over 45 years had reduced by 34% and this was sustained at 12 months following the change. This decrease in FSH testing amounts to a saving of around £7,500 in 1 year. The most recent data from 2019 suggests a 52% reduction from the 2016 baseline data in FSH requests in women over 45. This increased uptake of our guidance ensures that menopause is diagnosed appropriately while making a cost saving through reducing unnecessary testing.

Insight from Dr Michael Osborn

"Tests such as faecal immunochemical test (FIT) for colorectal cancer are good examples of pathology diagnostics advocated by NICE. These tests can dramatically alter patient care. On an individual patient-by-patient basis they can highlight at-risk groups and facilitate their rapid progression along the relevant care pathway. They also reduce unnecessary escalations of care in patients who do not require it, and so help to focus limited resources on those who need them most. Having uptake data on such diagnostics helps identify barriers to their adoption so these can be addressed."

Diagnostic pathology during the COVID-19 pandemic

NICE is supporting the NHS and social care during the COVID-19 pandemic by providing guidance and supporting efforts to get promising diagnostics and treatments to patients quickly.

Our COVID-19 rapid guideline on arranging planned care in hospitals and diagnostic services recommends that people have a SARS-CoV-2 test no more than 3 days before admission to hospital for planned procedures needing anaesthesia or sedation, and that testing is carried out for all inpatients before discharge to another care setting.

Delivering a paediatric elective surgery service during the COVID-19 pandemic won highly commended at the NICE 2020 shared learning awards

Our shared learning example on delivering a paediatric elective surgery service during the COVID-19 pandemic describes how our COVID-19 rapid guideline on arranging planned care has been successfully implemented in paediatric elective surgery services at Bedfordshire Hospitals NHS Foundation Trust:

- patients and their households self-isolate for 14 days before the operation. The child and 2 carers are swabbed 72 hours before admission and all swabs are checked 24 hours before admission. Surgery is cancelled if any of the swabs are positive
- all elective inpatients are swabbed every 5 days after surgery, which reassures patients and staff.

This new service model was started in July 2020 and, as of September 2020, there were no confirmed cases of COVID-19 in patients using the paediatric pathway. It has allowed this vital service to continue safely during the COVID-19 pandemic.

Impact on primary care diagnostic pathology

Our suite of guidance and quality standards contain many recommendations that include a pathology-based test such as full blood counts, liver function tests, thyroid function tests and tests that help to diagnose cancer in primary care.

There has been a shift in the way care is delivered and how and when people access their GP

The Health Foundation's analysis of primary care use during the COVID-19 pandemic used a sample of national primary care data to explore primary care activity and outcomes between March and June 2020. The data showed that health tests, such as blood tests, fell by 80% in primary care compared to the previous year, but have since increased. Even though services were still open to people who needed them, the decrease may have been due to people staying away to avoid putting pressure on NHS services, because they were afraid of catching COVID-19 or because they were advised to stay at home during the lockdown. The long-term effects of this reduction in tests are not yet clear.

Insight from Dr Michael Osborn

"The COVID-19 pandemic has led to a significant backlog of planned healthcare, particularly elective surgery. This is due to the pressures of the pandemic itself and through an inability and in some areas a reluctance to access healthcare. Pathology-related guidance produced by NICE is helping address this backlog by signposting ways in which specialist services can be maintained while reducing the risks from COVID-19.

In addition, NICE advice on the use of pathology-based tests to help diagnose cancer in the primary care arena helps highlight patients who need to access urgent care despite the COVID situation."

Improving pathology data

There is no single national data collection for pathology services. The Sentinel Stroke National Audit Programme, Hospital Episode Statistics and the Quality and Outcomes Framework are some examples of existing national data sources, however, pathology data is often collected by single providers.

The 2018, NHS Improvement's Pathology networking in England: state of the nation report showed there is unwarranted variation in how NHS pathology services are delivered and how much they cost. The report suggests variation is not linked to the size or type of hospital but appears to be linked to whether the service is adopting best practice and using innovative ways of working. If a single source national data collection service was developed, it would enable services to establish a baseline for delivering best practice. Any variation could then be addressed to ensure that pathology services deliver better value, high-quality care.

Pathology networks

NHS Improvement

NHS Improvement's Pathology networking in England: state of the nation report states that 97% of all trusts have made progress towards networking their pathology services. NHS Improvement has been working with 29 pathology networks, allowing for the transformation of pathology services across England.

The national pathology quality assurance dashboard (PQAD) will report on pathology services month by month to help understand how services are performing and drive improvement. NHS England and NHS Improvement will collect this data quarterly for benchmarking. Data collection will include adherence to our guidelines on sepsis and neutropenic sepsis.

Getting It Right First Time: pathology

The Getting It Right First Time (GIRFT) programme is developing a pathology specialty report using clinical data, visits, current best practice and clinical experience of providing pathology services to both primary and secondary care in the NHS and other settings. GIRFT pathology clinical leads have gathered emerging themes and developed recommendations and actions to help improve pathology services, at both a local and national level.

One of the recommendations in the GIRFT pathology report is likely to be for a pathology data repository to enable analysis and comparison of local, network and national data, and the use of common data standards. The NHS England Diagnostics: recovery and renewal report also calls for standardised data collection across all diagnostics to drive operational performance and inform service improvement. NICE supports these views and will work with system partners on the development of a national data collection based on our guidance.

Insight from Dr Michael Osborn

"Pathology networks and GIRFT working with NICE will help develop and improve pathology services leading to better patient care. Accurate data is vital to this process and the pathology quality assurance dashboard (PQAD) will help to provide this. However, to achieve the best results the system must encompass the whole of healthcare, including primary care and specialised services, and there needs to be easy secure transferability of data across the NHS for treatment and research purposes, and to prevent tests having to be repeated. It is also important that data is not assessed in isolation but is related to real healthcare practice. In addition, it must be remembered that in all areas of pathology sufficient numbers of appropriately skilled staff are needed to achieve good outcomes."

What is NICE doing next?

NICE engaged with external stakeholder organisations and individual clinical biochemists, to identify implementation challenges and available support across the healthcare system while developing this report.

We engaged with:

- NHS England and NHS Improvement
- Getting It Right First Time (GIRFT) programme
- Academic Health Science Networks
- Royal College of Pathologists
- The Association for Clinical Biochemistry and Laboratory Medicine
- Institute of Biomedical Science.

Stakeholders have identified a gap in uptake:

Appropriate use of N-terminal pro-B-type natriuretic peptide (NT-proBNP) testing when diagnosing heart failure

Two areas that could enable system change:

Greater commonality of pathways across providers, ensuring alignment with our recommendations

Improved data collection to identify gaps in the uptake of tests, enabling focussed adoption efforts

To help support implementation in these areas, NICE will work with:

- GIRFT to address any joint actions arising from their pathology workstream
- Association for Clinical Biochemistry and Laboratory Medicine to explore collaborative working
- NHS England and NHS Improvement to support pathology priorities in the NHS Long Term Plan
- British Society for Heart Failure to explore collaborative working.

We would like to thank Dr Michael Osborn for his contributions to this report. We would also like to thank The British In Vitro Diagnostic Association and NHS Blood and Transplant.

Published May 2021

Any enquiries regarding this publication should be made to:

National Institute for Health and Care Excellence
Level 1A, City Tower
Piccadilly Plaza
Manchester
M1 4BT

Telephone: +44 (0)300 323 0140
Email: impact@nice.org.uk
Website: www.nice.org.uk