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

Cancer review of standards consultation response from the Royal College of Pathologists

28 March 2022

Are you aware of the current cancer standards?

Yes

What do you understand the Two Week Wait first seen standard to mean?

Patients will be seen within the first two weeks. This is the time between GP referral to specialist appointment.

What do you understand the 31 Day First treatment standard to mean?

Cancer patients receive their first treatment within a month of a decision to treat following diagnosis.

What do you understand the 62 Day Referral to Treatment standard to mean?

Patients who receive a cancer diagnosis will start treatment within nine weeks from the date of GP referral.

The Royal College of Pathologists (RCPath) is a professional membership organisation with more than 12,000 fellows, affiliates, and trainees. We set and maintain professional standards and promote excellence in the teaching and practice of pathology, for the benefit of patients. Our members include medically qualified pathologists and clinical scientists in 17 diagnostic specialties. Pathologists are central to the diagnosis of cancer. We are the specialised laboratory-based doctors who examine patients' biopsies and decide if there is cancer there.

Pathologists have a key role in the Multi-Disciplinary Team (MDT) meeting, liaising with surgeons and oncologists, determining the type, grade (aggressiveness and stage) and molecular characteristics of that patient's cancer, which directly informs the treatment of the patient.

To what extent do you agree with the proposal to replace the expectation of an appointment within two weeks with the proposal that people receive a definitive diagnosis or ruling out of cancer within 28 days of referral?

Neither agree nor disagree

Please explain your reasoning.

The College supports measures that will lead to earlier cancer diagnosis. Modern treatments coupled with early detection and monitoring offer hope that we can beat cancer. Pathology is central to this early diagnosis and ongoing monitoring as well as being vital for cancer prevention and screening. Whilst we support the 28-day target, it is essential that pathology laboratories are suitable equipped and staffed, with good IT and communication, to allow for diagnosis and all the necessary other testing that may be required for a definitive report for the clinician to act on. Many add on molecular or genetic tests require secondary referral and can add delays to critical diagnostic information currently.

However, pathology is facing a scientific and medical workforce crisis which must be addressed if we are to win the fight against cancer. *A* 2018 RCPath workforce survey. *Meeting Pathology Demand, Histopathology Workforce Census*,[1] has shown only 3% of cellular pathology departments currently are fully staffed.

In some situations, the target may be achievable e.g., when definitive diagnosis is based on a biopsy rather than an operative specimen and when molecular diagnosis is not required. However, the ability of the pathology service to achieve this is also dependent on when during the 28-day period a tissue specimen reaches the laboratory. And that is to a large extent out of our control.

Our Neuropathology members tell us that a 28-day target would be very challenging to achieve currently. The 28 days would have to encompass time to surgery, time to 1st pathology, MDT of 1st pathology, time to molecular pathology and producing an integrated report and then to 2nd MDT. Adequate logistics and infrastructure are not in place to get molecular testing done and completed – and diagnosis of brain tumours is an area where there is increased need for molecular testing and diagnoses are increasingly complex. Many centres need to send cases away to hub laboratories and sometimes to more centralised labs. Not all necessary molecular tests seem to be available across hubs and there seems to be a lot of variation in provision. If definitive diagnosis is defined by the final integrated report including histopathology, molecular and MDT review this is very difficult to achieve currently.

A histopathologist member thought that the 28-day proposal would simplify the process and help with planning and prioritising cancer services. However, adequate funding in terms of laboratory resources would be crucial to achieving this and many services may be exposed as under-resourced by the adoption of the target.

The English cervical screening programme already operates to a 14-day turnaround time and this has seldom been reached in recent years, although there is now a trend to improving on this. The cervical screening programmes nationally have all undergone very significant changes over the last three years with a change to primary HPV testing and reflex cytology. Staffing issues are a significant issue with ensuring timely cytology sample reporting.

The House of Commons Public Accounts Committee report, *NHS backlogs and waiting times in England*[2] recommends that any transparent and realistic assessment of what can be achieved must include an assessment of the number of staff that will be available and how staff who have been working under intense and consistent pressure will be supported.

The NHS has not met the 18-week maximum waiting time standard for elective care since February 2016 nor, in totality, the eight key standards for cancer care since 2014.

There have been an estimated 240,000 to 740,000 missing urgent cancer referrals since February 2020. There is also the huge challenge of communicating effectively with the 6 million people already waiting for elective care and providing them with support that they may require.

The report highlights that the UK has low numbers of healthcare resources per person compared with similar countries and actions taken now to increase its resources will likely take years to be realised. NHS staff have been working under continuously high pressure during the pandemic and the system is yet to feel the full effect of missing cancer and elective patients returning for care. The National Audit Office estimates that the elective care waiting list might grow to around 7 million people by March 2025, compared with 6.075 million in December 2021, even if the NHS manages to increase elective activity to its stated aim of 30% above pre-pandemic levels.

The House of Commons Public Accounts Committee report also notes “a striking feature of the pandemic was that very large numbers of patients did not present at, or were unable to access, routine NHS services”. As of September 2021, there were between 7.6 million and 9.1 million missing referrals of patients for elective care and between 240,000 and 740,000 missing urgent referrals for suspected cancer.

To what extent do you agree or disagree with the proposal to simplify the existing referral to treatment standards into a combined 62-day standard?

Neither agree nor disagree

Please explain your reasoning.

This was thought to be achievable from a neuropath perspective. In fact, an opinion was voiced that this target should be lower at say 45 days. This might put some pressure on logistics but would be an incentive to develop faster assays (industry, implementation by GLH) and improve how MDTs work. Would also need to leverage funding to improve processes between and within laboratories.

Minimising diagnostic delays and making sure that pathology is also sufficiently well-resourced to perform its role in directing patient care in a timely manner is essential. As an example, when it comes to treatment, blood cancers are more complex than solid tumour cancers. Ensuring blood cancer patients have timely access to the best and most effective new medicines and treatments is, therefore, critical to improving patient outcomes.

According to the House of Commons Public Accounts Committee report, *NHS backlogs and waiting times in England*,[2] currently, only 67% of patients with an urgent referral for suspected cancer were treated within 62 days, compared to the current requirement for 85% to be treated within that time.

Haematology

Haematologists are doctors who are experts in blood. These include the blood cells circulating in the blood and those being made in the cell factories of the bone marrow. Haematologists study blood disorders, including blood cancers and diagnose and treat these cancers. They are an essential element of clinical cancer care. As reported in the British Society For Haematology workforce report, vacant posts are an issue, exacerbated by the need for service expansion to accommodate new therapies and increasing complexity of the clinical workload in an ageing population with longer survival. The BSH workforce/member research has also highlighted the

increasing prevalence of stress and concern about the wellbeing of those in the haematology profession (>75% respondents).

There is a high proportion of consultants approaching retirement, 48% of haematologists will be retiring in the next 10 years, this will be compounded by difficulties in recruitment to both substantive and trainee posts and represents a higher proportion of the workforce than in many other specialties https://www.rcplondon.ac.uk/projects/outputs/focus-physicians-2018-19-census-uk-consultants-and-higher-specialty-trainees

There are areas of haematology training and career development that need specific attention including development of improved pathways for career progression for healthcare scientists, acknowledgement of the role of consultant scientists and clarity on career structure in other areas including paediatric haematology.

Digital pathology – the digitisation of biopsy images to allow their review on computers, or remotely, will improve patient care and support the pathology workforce by making the diagnosis and monitoring of disease much more efficient. It will bring faster and easier access to expert opinion and advice, with the rapid referral of cases between pathology networks or between organisations. However, to transform pathology services and support patient care and safety, we need investment in IT infrastructure, staffing and training.

We acknowledge the significant investment in LIMS/digital pathology promised for 2021-2022. This corresponds to the NHS priorities for 2022/3 announced on 24 December 2021 (Achieving "digitisation in every service")[3]. In relation to this, the commitment has been met however long-term investment in training staff and establishing well-equipped laboratories to support Genomic medicine is needed. This area offers an incredible opportunity for faster, accurate diagnosis and tailored treatment, particularly for people with cancer.

Digital pathology

- Digital pathology also facilitates remote working in several ways which are useful during the pandemic and going forward will help with staffing issues - home reporting, avoiding the need to be physically in the same space as a colleague giving a second opinion, and facilitating trainee pathologists in learning.
- If managed carefully this can provide some flexibility, but we also must be careful that a department doesn't become a series of individuals working in a more isolated way.
- Digital pathology leads to easier access to archival cases for review, better access to slides for MDT discussion, easier comparison of slides from the same block stained differently – e.g., an immunohistochemistry slide and a hematoxylin & eosin.
- Any investment should also build on the initial investment of the NHS to develop centres of excellence in digital pathology nationally. These centres can help with any further expansion of the technology across the NHS, by sharing knowledge and standards. It is the view of the College that digital pathology should be centrally funded and rolled out nationally in a similar way to digital radiology.
- Digital pathology, and developments in technology enhanced learning provide unique opportunities to support future training models (attracting high calibre trainees), multidisciplinary learning, and workforce challenges. For example, the Pathology Portal[4]. The adoption of these beneficial modern technologies will require initial funding and

ongoing financial support to maintain up-to-date systems, and to train the pathologists, IT staff, and biomedical scientists to use them effectively.

Artificial Intelligence

There is great potential for the development of AI to support the diagnostic process in pathology, especially image analysis in histopathology. Investment in digital pathology systems with joined up IT systems and information sharing across organisations is vital to begin to understand the potential for AI-assisted diagnostics, and continued investment in digital pathology. There will need to be educational resources to educate health professionals in data governance, ethics, appraisal and interpretation of AI and similar technologies.

While the advent of AI in pathology is very exciting, and the NHS could be a world leader in the development and use of AI in pathology thanks to investments in this area to date. a great deal of work is required to get to the point where AI is fully developed and used safely in the NHS. As a result, it is very unlikely that AI will address the severe workforce gaps we see in the short term, but rather contribute to future developments in medical safety and efficiency in the medium term.

There are AI systems which exist and are used in cervical screening that can triage out samples that may not require full examination. Their use is very limited currently, but greater development and resourcing could allow a wider use and help offset staffing issues.

To what extent do you agree or disagree with the proposal to simplify the existing decision to treat to treatment standards into a combined 31-day standard?

Neither agree nor disagree

Please explain your reasoning.

Again, this depends by what is meant by “decision to treat” – is this final and based on final diagnosis including all molecular? In which case this might be challenging – please see comments on 28-day target.

The pandemic has had a devastating impact on recent efforts to improve cancer recovery and survival in the UK. Until the diagnostics are complete, treatment for cancer, as with other debilitating conditions, cannot start. There is a compelling need for diagnostics to be “front loaded” so that the prioritisation of patients becomes markedly more efficient. The government’s commitment to 40 community diagnostic centres is a major step in the right direction.

Community Diagnostic Centres

- We welcome the move to introduce easier access to diagnostic services centred around patients. Quicker, easier access through a ‘one stop shop’ will lead to earlier diagnoses which leads to better outcomes for patients and can save lives.

- The significant drop in referrals from primary care has meant that patients are presenting late for diagnosis. The establishment of Community Diagnostic Centres should help with this by introducing easier access to diagnostic services centred around patients. Quicker, easier access through a ‘one stop shop’ will lead to earlier diagnoses which leads to better outcomes for patients and can save lives.

- These new diagnostic centres need to be introduced with sufficient resources, in terms of staffing, IT provision and connectivity with other systems (such as GP practices).

The COVID-19 crisis has highlighted pre-existing problems facing rural areas. Our members tell us that this means patients wait longer for a diagnosis in these areas. It can be hard to recruit and retain doctors and nurses who are willing to work in smaller hospitals, which means health Trusts/boards rely more heavily on agency staff to fill gaps in rotas. This has a knock-on effect on patient care, with patients travelling long distances.

Personal care plans will be revolutionised by genomics, and this is already starting to be happen. In all oncology specialities, there is a huge push to do more and more genomics, which will be fantastic for patients, but it has huge workload implications for pathology and there which has been unaddressed with funding. And this is going to be like a parallel service to traditional histology in the next five years. So, this is going to be important in terms of personalised care, but there will be huge implications. This is something that, if not addressed now, will be a big problem in five years' time because the government will have missed the boat to invest in genomics.

The COVID-19 pandemic has highlighted the importance of laboratory tests and laboratory professionals within healthcare. There have been workforce shortages for some time, but now more than ever, it is vital that services are sufficiently funded and supported to get more people diagnosed quicker. This is necessary to optimise healthcare recovery both for COVID-19 related illness and to tackle the diagnostic backlog, particularly in cancer services. Ensuring that there are sufficient trained staff, equipment, and IT support to underpin laboratory services is vital. The College suggests the following solutions:

Short-term:

- Increase numbers of biomedical scientists supporting medically qualified pathologists in integrated teams. Within cellular pathology, this should focus on BMS cut up as this frees up significant consultant time.
- Increase number of clinical scientists in pathology and provide improved/widened workplace/academic training programmes.
- Further development of BMS with already proven skills (such as the ASD qualification in diagnostic cytology) to expand their roles in reporting diagnostic cytology.
- Encourage better retention and return to practice.
- Develop a system of independent reporting for trainee pathologists which can also help reporting capacity.

Medium-term:

- Increase training posts in all pathology specialties and lab staff numbers.
- Invest in schemes to attract trainees to pathology at all stages of education.
- Provide better IT including modern, functional laboratory information systems, voice recognition support and remote working software.
- Ensure capital investment and follow-on revenue to implement digital pathology more widely, enabling staff to work more efficiently, flexibly, and remotely.
- Invest in the development of and adoption of AI technologies that help deliver increase in testing capacity and more rapid diagnoses (applicable to both radiology and pathology)
- Invest in the development of and adoption of AI technologies that help deliver increase in testing capacity and more rapid diagnoses (applicable to both radiology and pathology)
- There needs to be integration of histopathology and genomics/Genomic Laboratory Hubs - operating both in silos causes delays and generates waste of money as many processes end up being duplicated.

Long-term:

- Prepare for greater demand for pathology services to service increases in chronic disease, (diabetes, heart disease, chronic respiratory diseases).
- Ensure staffing levels are sufficient to meet service expectations. This is not possible in the current model where staffing is aimed to cover minimum/average workload.

Pathology underpins every aspect of patient care, and pathologists are crucial to cancer diagnosis, treatment, and monitoring of patients. Pathologists provide diagnostic information and advice to all specialties in primary, secondary, and tertiary care.

There has been a year-on-year increase in demand for pathology services, both in the number and complexity of tests performed. Staffing levels have not risen in line with demand and pathology services are unable to recruit to vacant posts. It can take up to 15 years to train a pathologist.

- 95% of clinical pathways rely on patients having access to efficient, timely and cost-effective pathology services; a service that requires significant attention and investment if it is to meet both the immediate and future workforce demands.
- The workforce is an ageing one; around a third of pathologists are 55 or over. When our most senior consultants retire in the next 5-10 years, there will not be enough trainees to replace them in numbers, let alone in knowledge and expertise.
- The College has serious concerns over preparations to deal with the backlog of non-COVID-19 related illness and the related surge of demand for pathology services, particularly for cancer diagnosis and treatment for both tissue and blood cancers.

95%[5] of patients will have a pathologist involved in their care at some point in their healthcare journey. The specialties play a vital part in cancer diagnosis, chronic disease management and have been central to efforts during the COVID-19 pandemic. As the evidence points to it being between 2%[6] and 4%[7] of the healthcare bill, the value of pathology services far outweighs the cost.

Without the right test, at the right time, with the right answer, safe and effective patient care cannot be delivered. Having the right number of diagnostic staff in the right places, working in a supportive culture, is key to the delivery of the College's vision of an agile and resilient pathology service with patients at its heart.

Recruitment and retention are a problem in rural areas, which results in the patient journey being slower, with the challenges of getting to hospitals. Pathology is at the heart of most patient experiences, and when pathology is well resourced, there are enormous benefits to the quality and timeliness of patient pathways. The advantages of pathology diagnostics are not being harnessed, with the role of pathologists often hidden.

External references / sources

[1] The Royal College of Pathologists, *Meeting Pathology Demand*, 2018
[2] The House of Commons Public Accounts Committee report, *NHS backlogs and waiting times in England*
[3] NHS England 2022/3 Priorities and operational planning guidance
[4] https://www.rcpath.org/discover-pathology/news/pathology-portal.html
[5] IBMS supports call for increased diagnostics investment - Institute of Biomedical Science
[6] NHS England » Funding and efficiency
[7] https://www.rcpath.org/profession/workforce-data.html

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About the Royal College of Pathologists

The Royal College of Pathologists is a professional membership organisation with more than 11,000 fellows, affiliates and trainees, of which 23% are based outside of the UK. We are committed to setting and maintaining professional standards and promoting excellence in the teaching and practice of pathology, for the benefit of patients.

Our members include medically and veterinary qualified pathologists and clinical scientists in 17 different specialties, including cellular pathology, haematology, clinical biochemistry, medical microbiology and veterinary pathology.

The College works with pathologists at every stage of their career. We set curricula, organise training and run exams, publish clinical guidelines and best practice recommendations and provide continuing professional development. We engage a wide range of stakeholders to improve awareness and understanding of pathology and the vital role it plays in everybody's healthcare. Working with members, we run programmes to inspire the next generation to study science and join the profession.