

Priorities for the UK Governments and Health Services to recover cancer services through and beyond the COVID-19 pandemic

Cancer Research UK

Our assessment of the challenges facing cancer services following the peak of the COVID-19 pandemic

COVID-19 is an unprecedented crisis which has had a profound impact on healthcare services across the UK and will continue to have an impact for months and perhaps years to come. Here, we set out our assessment of the impact of the pandemic on cancer services and the challenges being faced in service recovery, followed by our view of the key priorities as part of recovery to ensure that cancer patients and people with suspected cancer get the support they need in a timely manner.

Cancer is the leading cause of death in the UK, and cancer doesn't stop because of a pandemic. Before COVID-19 there were around 367,000 new cases of cancer in the UK each year, and sadly, around 165,000 cancer deaths¹. Early diagnosis followed by swift access to the most effective treatment remains as important as ever to provide patients with the best chance of survival.

The impact on cancer services

Health services have had to quickly respond and adapt to meet the unprecedented challenges presented by COVID-19. But the impact on cancer patients, or those yet to be diagnosed, has been substantial. In many places, cancer services have been paused or disrupted, with thousands of patients' care affected, as shows in the table below.

Cancer service	Cancer Research UK analysis of disruption to the service
Screening	All national cancer screening programmes in the four UK nations were paused, which means up to 1.2 million invitations to take part in the bowel, breast and cervical screening programmes were not being sent out each month. In the 10-week period following the start of lock down in March 2020, we estimate that 2.1 million people have been left waiting for screening. Normally, at least 1,600 patients go on to be diagnosed with cancer through the screening programmes each month in UK, mostly at an early stage, and an additional number of potentially pre-cancerous changes are diagnosed and treated.
Diagnostic testing	There was a significant drop in urgent referrals for suspected cancer – at its worst, a fall of around 60-75% across all four UK nations, though this has since improved. In the 10-week period following the start of lock down in March 2020, we estimate that 290,000 have missed out on an urgent referral for further testing for suspected cancer – which would normally catch up to 20,300 cancers. Furthermore, a significant proportion (around a quarter) of cancer patients are usually diagnosed following 'routine' referral and we expect these to be impacted too.
Treatment	A UK-wide survey conducted in April by the Royal College of Surgeons of Edinburgh showed that a third of cancer surgeons had to stop cancer surgeries completely and that 87% had to reduce them during the peak of the pandemic. Major and aerosol-generating surgeries (such as for oesophago-gastric and colorectal cancers) have been particularly impacted.

	In the 10-week period following the start of lock down in March 2020, we estimate that up to 12,750 fewer patients received surgery, 6,000 fewer for chemotherapy and 2,800 fewer receiving radiotherapy.
Clinical trials	In mid-April, during the peak of the pandemic, the Association of Medical Research Charities estimated that around 126,000 patients were unable to participate in charity-funded clinical studies.

Whilst decisions to reduce services have been rightly taken for the safety of people affected by cancer, we need to ensure that, going forward, cancer patients and people with suspected cancer can access the support they need.

Challenges facing cancer services

We see several challenges that the health services need to overcome to recover cancer services as we move through and beyond the COVID-19 pandemic:

Addressing a large backlog of patients needing cancer services

A substantial backlog of patient demand has built up as a result of disruption to cancer services throughout the peak of the COVID-19 pandemic. Our analysis indicates that a backlog of 2.4 million people waiting for screening, diagnostic and treatment services accumulated over the 10-week period from the beginning of 'lockdown' in March 2020. Whilst the health services work to restore service capacity and rebuild patient confidence in service safety, throughput will continue to be reduced, limiting the speed at which the backlog can be addressed. Measures to manage the backlog, including prioritisation of patients based on their clinical need, will be essential.

Increasing strain on an already overstretched health service

Service capacity was an issue even before the COVID-19 pandemic, with around 1 in 10 diagnostic posts unfilled across the health services. The pandemic has exacerbated this problem: caring for the substantial backlog of patients will require a bigger workforce and more kit; implementation of infection prevention and control measures means that service provision is becoming more intensive and time-consuming, and; there are serious risks of workforce attrition due to staff burnout.

However, there will continue to be hundreds of thousands of new cancer cases per year across the UK who will need to receive timely diagnosis and treatment. Understanding workforce and kit shortages and taking steps to address these gaps in the short term will be essential so that patients can continue to receive the cancer care they need without impacting on their chances of survival.

Cancer incidence in the UK will continue to increase in the coming years, and so in the longer term, governments and health services will need to work towards further uplifting throughput to ensure cancer services can meet patient demand.

A crisis of public confidence in cancer care

The impact of the pandemic on the health services, and associated messaging to 'stay at home', has led to a crisis in public confidence about health services' capability to deliver diagnostic and treatment services, safe from COVID-19. Urgent referrals for suspected cancer plummeted during the peak of the pandemic, in large part because fewer people were presenting with signs and symptoms to their GP. This is both because of concerns around safety but also due to concerns around further overburdening already overwhelmed health services.

We must rebuild public confidence that health services are open to support patients with cancer or suspected cancer, and capable of delivering cancer services – both diagnostic and treatment services – with the highest possible standards of safety.

Preventable cancer cases and avoidable ill health

Around 4 in 10 cancers are preventable. And not only are smoking and obesity the leading causes of cancer, avoidable ill-health and premature death across the UK, but they have been linked to worse COVID-19 outcomes. Preventable risk factors place a substantial burden on our health system - there are almost 500,000 smoking-attributable hospital admissions each year in England alone.

As we move beyond the peak of the pandemic, we need bold action to bolster the health of the population and improve the healthcare system's capacity. Prioritising population-wide prevention measures to reduce smoking and obesity will mean fewer people getting sick and dying from avoidable illness. This will help create the foundations for a healthier and more resilient population, lower baseline demand on healthcare services, and support economic recovery in the longer term too.

Inequality in health and inequity in healthcare

The COVID-19 pandemic has brought to the fore the issue of health inequality across the UK. Evidence shows that higher rates of COVID-19 incidence and mortality are being experienced by older people, men, those from more deprived groups, and black, Asian and minority ethnic groups.^{2,3}

Reasons for this are complex. But we do know that those from the most deprived groups and parts of the black, Asian and minority ethnic groups suffer from worse health than those from the least deprived groups and white ethnic groups, putting them at greater risk of COVID-19 from the start.^{4,5} These communities also face inequality at every stage of the cancer pathway. The root causes and structural disadvantage behind these patterns must be explored further and properly addressed.

Unfortunately, some of those already facing inequality are also likely to suffer the most from the unintended consequences both of policies introduced to manage the impact of the pandemic – including economic and social lockdown. We need to make sure, as we move forward through and beyond the pandemic, healthcare services are set up to ensure equity in access to and provision of care – and that the inequalities that persist in the cancer pathway are addressed.

Our recommendations to recover cancer services through and beyond the COVID-19 pandemic

Here we set out our view of what the UK governments and health services need to do to recover cancer services following severe disruption due to COVID-19, in anticipation that it will contribute to the recovery work already being planned and implemented across the four UK nations.

Our recommendations seek to support the health services in managing the backlog of demand, restoring cancer service capacity, rebuilding public confidence in cancer care and preventing cancer. With all of these recommendations, continued consideration will need to be given to ensure that patients have equitable access to services and that inequality between different patient groups is reduced.

As we move forward, we are presented with a unique opportunity to identify, scale up and 'lock in' changes in practice that have emerged through the pandemic, which have the potential to improve quality and efficiency of cancer care. Whilst much more action will be required to truly transform cancer services so we can meet our long-term cancer ambitions, we believe there is real opportunity to start delivering on the transformation agenda now.

A summary of our recommendations is as follows:

Foundations of cancer services

1. Establishing and maintaining COVID-protected spaces for delivering cancer services
2. Building workforce resilience and capacity
3. Investing in kit to increase capacity

Continuing to prevent cancer

4. Taking action to help people quit smoking
5. Taking action to reduce overweight and obesity

Early diagnosis and screening

6. Funding public awareness campaigns to encourage people with potential cancer symptoms to seek help from their GP
7. Scaling up volume of diagnostics in COVID-protected spaces to support screening and diagnostic capacity across each nation
8. Developing plans to re-establish and ramp up screening services

Treatment for cancer

9. Ensuring appropriate national guidance to implement and roll out triage tests and new pathways
10. Ensuring appropriate national guidance on cancer treatment remains up to date and in place
11. Scaling up and coordinate treatment capacity in COVID-protected spaces
12. Ensuring continuity of medicines supply

Clinical trials for cancer treatment

13. Safeguarding clinical research
14. Restarting clinical trials

Planning, monitoring and evaluating recovery

15. Supporting data input, consolidating data collection and timely reporting
16. Evaluating progress and implementing lessons learnt

These are set out in more detail below.

Foundations of cancer services

Our view is that these three recommendations form the foundation for recovery of cancer services, underpinning almost all of the other recommendations.

1. Establishing and maintaining COVID-protected spaces for delivering cancer services

As a priority, it is vital that safe spaces, protected from COVID-19, are established and maintained in healthcare settings so that cancer patients, patients with suspected cancer or patients with positive screening results can receive care as safely as possible.

Therefore:

- Health services should provide COVID-protected spaces in both primary and secondary care settings, across the whole of the UK. Consideration needs to be given to site location and configuration to ensure that all patients can access these sites equitably and without difficulty.

Robust COVID-19 testing protocols, combined with adequate Personal Protective Equipment (PPE) and enhanced safety procedures, are essential to making this possible. Testing of all patients and healthcare staff – whether symptomatic or asymptomatic – who are based in COVID-protected environments should take place on a frequent basis. There must be a strategy and sufficient capacity in place to enable this. As a guide, our analysis indicates that approximately 21,000 – 37,000 tests per day would be required across the UK for cancer services (*assuming a throughput at pre-pandemic levels*). This would test all patients requiring cancer diagnostics and treatment and allows for variation in the frequency of testing, as well as a weekly test for all staff (clinicians and support staff) required to look after them.

Therefore, the UK and devolved governments and health services should:

- Develop robust national strategies (for each UK nation) for rolling out testing amongst healthcare workers, setting out the order of priority of different parts of the service. Staff and patients in COVID-protected spaces across primary and secondary care settings must be identified as high priority so that cancer services can be delivered in environments as far as possible free from COVID-19.
- Maintain clear national guidance (for each UK nation) for establishing COVID-protected spaces. This should cover protocols for testing staff and patients, set out requirements for patients to self-isolate before elective procedures, and set out the need to track exposure to individuals (staff or patients) who test positive for COVID-19.
- Where testing is already happening, ensure access at the point of care is widely available with a rapid turnaround for results (within hours, rather than days), and expand health services testing capacity so that healthcare workers can be tested at least once a week, but ideally more.
- Ensure that there is an adequate supply of PPE for all staff working in or supporting cancer services, to protect them from infection and the risk of contaminating COVID-protected cancer sites.

2. Building workforce resilience and capacity

Cancer services cannot be delivered without the necessary workforce. Workforce shortages are going to present a major challenge – or even crisis – in the coming months and years. Before the COVID-19 pandemic, there were around 1 in 10 diagnostic posts unfilled across health services and two thirds of staff felt that staffing levels were insufficient.⁶ The pandemic has exacerbated this issue: caring for the substantial backlog of demand will require a bigger workforce, implementation of infection prevention and control measures means that service provision is becoming more intensive and time-consuming, and there are serious risks of workforce attrition due to staff burnout.

Addressing these shortages is going to require delivery of a comprehensive workforce plan with necessary funding from the UK and devolved governments for training and education.

However, it must be acknowledged that this won't provide a solution for the short-medium term. Health services and planners need to be honest and realistic about what is possible as part of recovery and what can be achieved in the current environment. Identifying the impact of the pandemic on cancer workforce shortages and then developing short-medium term solutions to manage the shortages will be essential.

Therefore:

- Health services must develop a clear understanding of the impact of COVID-19 on professions that are fundamental to cancer diagnostic and treatment service provision.
- Health services should take steps to increase workforce where there is demand, by calling on the independent sector and those who are retired to offer support for the short term.
- Health services should upskill our existing workforce in skill areas in which a shortage is expected. (For example, it is clear that we will need more staff with intubation and intensivists skills because many staff with these skills have redeployed to treat COVID-19 patients.)
- Health services should consider how to use existing staff and technology as efficiently as possible.
 - Through the adoption of the best 'skill mix' approaches, health services can ensure that cancer staff are always using their full range of skills to the good of their teams, ensuring less staff time is wasted and thereby helping alleviate demand. (This will also help establish a more flexible, sustainable and resilient workforce in the longer term.)

- Consideration should also be given as to how to best exploit technology to improve efficiency – for example, use of software to carry out mammogram readings in the breast screening programme and in lung CT management.
- Throughput of patients will need to be managed so that patient demand does not outweigh health services' capacity to deliver safe and effective care.

It is likely that the pandemic will have a negative impact on the wellbeing and mental health of healthcare staff, with many experiencing burnout. This poses risks in staff retention – and could also impact on intentions to train in the longer term.

Therefore:

- Health services need to have a clear understanding of how the pandemic is impacting the wellbeing, resilience and morale of healthcare staff, and should put in place measures to address this.
- Governments should monitor the impact of the pandemic on intentions to train across professions vital to the delivery of cancer services and take action accordingly.

3. Investing in kit to increase capacity

Current levels of equipment pose a critical limitation to diagnostic capacity and the ability to get through the growing back log of diagnostic tests.

Before the pandemic, the UK was behind international counterparts in the number of scanners and machines per capita.⁷ Now, necessary implementation of infection prevention and control measures is further reducing the capacity of current kit to below pre-pandemic levels. This includes regular deep-cleaning of equipment and rooms in between each patient use, implementation of measures to ensure social distancing of patients and staff, and handling of PPE.

We have heard that screening programmes are expecting up to 40% less throughput based on current workforce and kit capacity. Modelling needs to be carried out to understand by exactly how much capacity will be reduced and articulate increased levels of kit required, so that the backlog of patients can be managed and new patients can continue to receive the cancer care they need. Health service must be able to invest in new diagnostic kit and associated infrastructure accordingly.

Therefore:

- Health services should conduct modelling to articulate increased levels of diagnostic kit required to manage patient backlog and return service capacity to pre-pandemic levels at a minimum.
- Health services must invest in new diagnostic kit accordingly, with urgency.

Continuing to prevent cancer

4. Taking action to help people quit smoking

Smoking continues to be the biggest preventable cause of cancer, illness and death in the UK. Recent research suggests that people who smoke who contract COVID-19 are more likely to experience severe symptoms than non-smokers⁸ (in line with evidence on disease severity among other respiratory infections). Smoking also causes a significant burden to health services – in England alone, there are almost 500,000 smoking-attributable hospital admissions each year;⁹ and it is a key driver of health inequality accounting for around half the difference in life expectancy between the richest and the poorest.¹⁰

Given this, it is vital that people who smoke continue to be provided with professional support to give them the best chance of stopping smoking – to reduce their risk of cancer, reduce their risk of poor outcomes from COVID-19, and to reduce demand on overwhelmed health services.

Very Brief Advice (VBA) is an intervention that can be used by health professionals to encourage and support a quit attempt – and it takes less than 30 seconds to deliver. Stop smoking services, which offer behavioural support and pharmacotherapy, provide people who smoke with the best chances of quitting.^{11,12} Unfortunately, due to cuts to local public health budgets, they have faced significant cuts across England. Whilst this disinvestment has not yet been replicated across the other UK nations, there is concern that potential re-prioritisation of investment due to COVID may impact more widely on health improvement services.

Therefore:

- Specialist stop smoking services should continue to offer behavioural support and medication to quit, with support delivered virtually.
- National and (where relevant) local governments should ensure that specialist stop smoking services receive proper investment so that everyone who smokes can access specialist support to help them quit.
- Primary and secondary care should provide VBA on smoking to all patients to encourage and support people who smoke to stop, and act by referring people to local stop smoking services, prescribing medications and/or discussing e-cigarettes as a tool to quit.

5. Taking action to reduce overweight and obesity

Overweight (BMI 25-30) and obesity (BMI 30+) is the second-biggest cause of cancer in the UK, and more than 6 in 10 UK adults are overweight or obese. There is evidence emerging of an increased risk of COVID-19 infection and severity of outcomes for people with BMI 30+ (though more research is needed to determine a causal link). Excess body weight is also linked with many diseases, including diabetes and cardiovascular disease, which put people at higher risk from COVID-19 and place an increased burden on health services.

People should have access to help and support with their weight management, and health professionals should be supported to refer them to specialist services. Evidence suggests that behavioural support is the most important component of a weight loss intervention, potentially increasing retention on the programmes and improving long-term weight loss.

Therefore:

- National and (where relevant) local governments and health services should consider opportunities to reduce overweight and obesity rates in the UK – including interventions to support prevention and to provide effective weight management services.
- Health services should consider opportunities within its existing work to raise awareness of the impact that being overweight can have on cancer.

Early Diagnosis and Screening

6. Funding public awareness campaigns to encourage people with potential cancer symptoms to seek help from their GP

Public awareness campaigns to encourage people with potential cancer symptoms to seek help from their GP were important before the pandemic due to low rates of presentation. Unfortunately, the pandemic has exacerbated this. A few weeks into the pandemic, we saw a significant drop of 60-75% in urgent referrals for suspected cancer across the UK. This was in part due to fewer people presenting at their GP with potential signs or symptoms of cancer, both because of concerns around risks for exposure to COVID-19 and concerns of overwhelmed health services.

In particular, there has been a significant reduction in referrals for suspected lung cancer, with some anecdotal evidence suggesting referral rates in some areas are as low as 7% of normal activity. This may be because a key symptom of COVID-19 is a cough, which is also the most common symptom of lung cancer. To reduce the spread of COVID-19, people have been asked to avoid primary care if they

have developed a cough – serious consideration needs to be given on how to mitigate the impact this may have on lung cancer outcomes in the immediate and longer term.

Diagnosing cancer early significantly improves chances of survival. It is therefore imperative to remind the public that their GP wants to hear from them if they have any symptoms that they are concerned about or have noticed changes which are unusual for them. It is also important to build public confidence that health services are still open for support and that support can be accessed by virtual means in many cases. All nations should be investing in public health campaigns to this end, adapting them as necessary to ensure they are having the intended effect.

Therefore:

- Public awareness campaigns should be funded as a priority and developed to encourage people to seek help or speak to their GP:
 - In the short term, these campaigns would benefit from a broader message which helps to address anxieties that people may have about coming forward (such as fear of infection or fear of overburdening the service). This should be kept under review and re-focused as necessary, including consideration of particular cancer types and cancer screening.
 - Campaigns should be targeted to reduce inequalities and reach those communities who bear a greater burden of cancer incidence – including deprived groups. There should be coordination to support the reaching of communities most in need.

7. Scaling up volume of diagnostics in COVID-protected spaces to support screening and diagnostic capacity across each nation

The initial drop in urgent referrals for suspected cancer of 60-75% across the UK is improving, but rates are still lower than usual and the backlog of patients requiring diagnostic tests continues to build. Due to concerns about COVID-19, not only have people with symptoms not been coming forward, but GPs are not always referring patients as readily for further investigation and, in some instances, hospitals have been rejecting referrals on a balanced assessment of capacity and risk. GP direct access to testing (where available), such as blood tests or chest x-ray, has also been compromised and will need to be rectified as this is crucial for referral of patients with potential cancer symptoms.

COVID-protected spaces where diagnostics can be safely offered need to be established across the UK either as new sites, or within existing COVID-protected treatment spaces. It is important that capacity and diagnostic provision in these spaces can be introduced and scaled up where possible. This will require safeguards around infection control and testing of patients and staff, as outlined above.

Coordination of screening and diagnostic capacity across each nation will also be crucial to ensure as many patients as possible are able to receive appropriate diagnostic testing as quickly as possible – especially since disruption to diagnostic testing over this period has created a backlog of patients requiring further investigation. This coordination should be underpinned by accurate local and (where relevant) regional data on the size of the backlog of demand for diagnostic testing, as well as its distribution across different modalities.

Therefore:

- Health services at a national level should assess diagnostic capacity available for COVID-protected sites and identify any remaining gaps of services not being provided within COVID-protected sites.
- Decision-makers should put in place processes to coordinate diagnostic capacity on an appropriate geographical scale. This should be supported by appropriate workforce and resource planning including (where relevant) the use of networks, and based on the reality of reduced capacity due to safety requirements and reduction in workforce.

- Clear processes should be developed for local and regional planners, commissioners and providers (as relevant to each nation) to systematically track and report to the relevant bodies at a national level real-time data on the volume of diagnostic testing required and current capacity, across diagnostic modality, to help benchmark and respond to stresses in the system.

8. Developing plans to re-establish and ramp up screening services

All national cancer screening programmes in the four UK nations were paused, which means up to 1.2 million invitations to take part in the bowel, breast and cervical screening programmes are not being sent out for each month of pausing. Normally, at least 1,600 patients go on to have a cancer diagnosed through the screening programmes each month in UK, mostly at an early stage and an additional number of potentially pre-cancerous changes diagnosed and treated.

The decision as to when and how screening programmes can safely re-establish and ramp up is under review. The longer screening programmes are on pause, the greater the backlog of patients requiring further testing.

Therefore:

- Screening, including follow-up tests, must be considered as part of diagnostic capacity planning (rather than separately)
- Plans should be developed and published for each national screening programme, for the full screening pathway, which must include the approach taken and clear timelines as well as national safeguarding to ensure no one gets lost or missed. These should include:
 - Catch-up and prioritisation of those who were awaiting follow up tests before screening programmes were paused;
 - A risk/ benefit assessment
 - Adequate plans for inviting people who haven't been invited for screening during this time and so will receive their invitation late;
 - Timelines of when programmes standards will be met across the pathway;
 - Timelines of when programmes will reach pre-pandemic levels of coverage and uptake or better.
- Consider any opportunities for optimisation of screening programmes, including the use of artificial intelligence or improving risk stratification, where sufficient evidence supports implementation.

9. Ensuring appropriate national guidance to implement and roll out triage tests and new pathways

As the backlog of patients requiring further testing is substantial, the implementation of triage tests such as qFIT (quantitative Faecal Immunochemical Test) can, alongside the patient's clinical features, help GPs and other relevant health professionals decide who to refer based on their risk of having cancer. It is helpful to understand which patients are at highest risk, so they can be prioritised for further testing. For patients who are deemed at lower risk it is important to ensure that there are appropriate safety-netting measures in place to ensure adequate follow up as some of them will have cancer.

New initiatives, such as NHS England's rapid diagnostic centres and Wales' Single Cancer Pathway, would be able to support the system to be more efficient at working through the backlog of patients. It is unlikely this type of pathway would create additional capacity within the system but could support wider efforts to drive patient-centred care and optimised triage, potentially helping to mitigate some of the impact COVID may have on cancer outcomes.

Therefore:

- Full roll out of triage tests, such as qFIT, should happen as a priority where the evidence supports implementation. This should include guidance to primary care on how these tests are to be used in a safe manner.
- The development of new pathways should be supported by national guidance and adequate funding (per each UK nation), and local cancer service planners should put in place processes to coordinate the implementation of new pathways at an appropriate geographical scale.

Treatment for cancer

10. Ensuring appropriate national guidance on cancer treatment remains in place

Guidance issued by health services and national governments in each of the UK nations on the clinical management of cancer patients has rightly set out changes and new considerations which have had to be introduced during the pandemic. Many of these will need to remain in place, but it is important guidance continues to be updated in response to the changing situation.

Updated guidance must reflect the reality of a substantial backlog in treatment demand, and patients' anxiety about if and when their planned treatment will be able to restart. However, there is also an opportunity to scale up beneficial innovations developed during the initial response and 'lock in' best practice adopted during this period. Extra resource may be needed to deliver this consistently across the UK.

Therefore, the national governments and health services should:

- Provide updated national guidance on the clinical management of cancer patients to Trusts and Health Boards (with relevant stakeholders – for example primary care – kept informed). This should include:
 - Clear expectations about how any alterations to patients' (pre-COVID) planned treatment should be decided and discussed with patients, including how disease progression over this period will be assessed and factored into decision-making.
 - Highlight local examples of innovations in treatment delivery which may be suitable for adoption across a wider range of Trusts and Health Boards (e.g. increased administration of systemic therapy (SACT) outside of hospitals, and wider use of evidence-based hypofractionated radiotherapy).
 - Encourage the use of international best practice in prehabilitation and perioperative surgical care pathways, building on existing local enhanced recovery programmes, to accelerate patients' recovery and allow for increased throughput of patients.
- Ensure treatment prioritisation categories outlined in national guidance are kept under review for their appropriateness. Efforts should continue to make interim treatment options available for patients in lower priority categories.

11. Scaling up and coordinate treatment capacity in COVID-protected spaces

COVID-protected spaces where treatment can be safely offered (including wholly separate sites for some surgery) are being established across the UK. It is important this capacity is now used and treatment provision in these spaces scaled up. This will require safeguards around infection control and testing of patients and staff, as outlined above.

Coordination of treatment capacity across each UK nation will also be crucial to ensure as many patients as possible are able to receive appropriate treatment as quickly as possible – especially since disruption to patients' planned treatment over this period has created a backlog of patients requiring treatment, and potentially with more advanced disease. This coordination should be underpinned by accurate local and (where relevant) regional data on the size of the backlog of demand for cancer treatment, as well as its distribution across different cancer types and treatment modalities.

Therefore:

- Health services at a national level should assess the surgical capacity now available in COVID-protected sites and identify any remaining gaps in provision (for instance, major surgeries requiring complex care and equipment).
- Local cancer planners and decision makers should put in place processes to coordinate treatment capacity on an appropriate geographical scale. This should be supported by appropriate local workforce and resource planning, based on the reality of a slower throughput environment.
- Clear processes should be developed for local providers to systematically track and report to health services at a national level real-time data on treatment volume, across disease site and stage, to help benchmark and respond to stresses in the system.
- Where laboratory capacity to undertake molecular diagnostic testing has been redeployed, a national approach to coordinating molecular diagnostic activity across established pathways should be considered to minimise the disruption to this service.

12. Ensuring continuity of medicines supply

Few concerns have so far been raised about the availability of medicines used in cancer patients' treatment, but it is crucial governments continue to monitor this situation and are conscious of how it is evolving over the duration of the pandemic and how it may overlap with preparations for the end of the EU Exit transition period. Governments should continue to work with industry to ensure they have the most up-to-date information regarding potential supply shortages caused by logistical issues arising from cross-border infection control procedures, restrictions on international movement of medicines imposed by other countries, or the knock-on effects of the pandemic abroad on the availability of Active Pharmaceutical Ingredients and global pharmaceutical manufacturing capacity.

Therefore:

- The list of medicines not permitted for parallel export from the UK should continue to be kept under review, following its initial expansion at the beginning of the pandemic.
- Structures put in place ahead of EU Exit for communication between the UK Government and the pharmaceutical industry on medicines supply issues should be maintained, so that appropriate and timely actions can be taken in case of anticipated shortages of any medicines used in cancer patients' treatment.

Clinical trials for cancer treatment

13. Safeguarding clinical research

COVID-19 has significantly reduced the UK's ability to run clinical trials, with the number of new patients being recruited on to UK-based trials falling by 95% in April 2020 (vs. April 2019).¹³ This has significantly reduced the opportunities for cancer patients to be newly recruited onto clinical trials, testing potentially life-saving new treatments. The impact of COVID-19 on CRUK's income – a fall of at least 25% in the 2020/21 financial year – is already impacting on our ability to fund research. As a first step, we have already had to cut £44m from our research budget this year, but may have to cut as much as £150m per year from our research portfolio. This would have a devastating impact on the scale of our funding across the research pipeline, including funding for new clinical trials.

Trial sites have seen declines in their incomes (from both commercial and non-commercial funders) and this has increased the risk of sites being forced to make redundancies and lose staff with invaluable expertise. Recovering this expertise would be a long and costly process, thereby prolonging this reduction in the UK's research capacity and slowing down our efforts to restart cancer research.

Therefore:

- DHSC should provide clear guidance on how staff costs for those seconded to the NHS will be recouped by medical research charities from Trusts in a timely manner.

- The Treasury should provide clarity to employers of contracted researchers on what support is available to ensure these researchers and their expertise are retained.

14. Restarting clinical trials

CRUK welcomes the NIHR's publication of a Framework that outlines the preconditions for restarting a clinical trial and the criteria for prioritising which trials should be restarted first.¹⁴ However, we remain concerned that this Framework will disproportionately benefit commercial, late-phase research, and could de-prioritise the restart of cancer trials. For example, reserving level 1 prioritisation for only nationally-prioritised COVID-19 studies may delay the restarting of urgent non-COVID-19 trials that offer equal (if not greater) potential patient benefits. These concerns could be assuaged by strong patient involvement in the Framework's implementation; however, the role of patients is not adequately detailed in the Framework's table of local- and national-level stakeholders. We recognise this Framework is just a first step to restarting clinical research and we look forward to further engagement with the NIHR to ensure cancer trials can restart as quickly as possible.

Therefore:

- The NIHR should expand level 1 prioritisation to include urgent non-COVID studies, especially studies that provide safer alternative treatments in a COVID-19 environment.
- The Restart Framework should more explicitly detail the role PPI should play in local and national decision-making, and recognise the essential role patients should play in restarting clinical trials. CRUK is well-placed to support this.
- The NIHR Restart Implementation group should provide further detail on how they will monitor the balance of trials being restarted (according to sponsor, complexity, and phase) and what measures they will use to remedy any imbalances they identify.
- We are aware that health research bodies (e.g. Chief Scientist's Office) are also preparing strategies to restart clinical trials. The strategies must balance the needs for patients with COVID-19 with those with other life-threatening conditions to ensure that patients with cancer remain a high priority.

Planning, monitoring and evaluating recovery

15. Supporting data input, consolidating data collection and timely reporting

Planning for recovery is made extremely difficult without the necessary data to properly understand the impact of the pandemic on cancer services nationally and regionally. Moreover, plans must be regularly reviewed in light of data on progress and performance. High-quality data collection, timely reporting and national linkage are therefore essential.

We have heard that, in England, ad-hoc datasets are being set up in response to the pandemic – whilst useful, it is important that these are streamlined and consolidated so they can be used as effectively and widely as possible. In the devolved nations, we are aware that COVID-19 has presented challenges around routine cancer data collection, in particular on routes to diagnosis and there are suggestions that staging data quality is suffering.

Therefore:

- All national data leads should require and support local health systems to continue high quality data input.
- All national data leads must report data in a timely manner so that health services can plan, review and update its response as it seeks to restore services to pre-pandemic levels.
- In England, national data leads should consider streamlining and consolidating new datasets that have emerged in response to the pandemic, and efforts should be made to avoid duplication.

- In Scotland, Wales and Northern Ireland, devolved governments and national data leads should enable routine collection and reporting of routes to diagnosis.
- All national data leads should consider emerging local data collection exercises for implementation at the national level.

There has been a strong response to data collection and management over the course of the pandemic to date, demonstrating that data can be collected, managed and used rapidly when the sector works together. The sector should continue to collaborate to retain its responsiveness and harness new opportunities for data access for the benefit of society long-term. However, it is imperative that mechanisms for safeguarding and transparency are put in place alongside this and that public trust is maintained.

In addition:

- Public trust and transparency must remain at the forefront of any decision-making on data collection and reporting, with mechanisms put in place for safeguarding.
- The sector should continue to work together to retain its responsiveness and harness new opportunities for data access for the benefit of society in the longer term.
- Consideration should be given to ensure ongoing, long-term use of the new COVID-19 data being collected now.

16. Evaluating progress and implementing lessons learnt

There is widespread recognition that the UK could face multiple waves of COVID-19 cases. The UK governments and health services should prepare for these scenarios, with a view to keeping fundamental healthcare services running as much and as safely as possible throughout. Plans for redeploying workforce, revising clinical pathways, maintaining COVID-protected spaces, and managing a growth in backlog should be put in place with a view to achieving a safe and efficient baseline provision of diagnosis and treatment services during future COVID-19 peaks.

Therefore:

- Steps must be taken to identify and act on our understanding of the pandemic's impact on health services to date.
- This should include putting in place plans for maintaining a baseline provision of cancer diagnosis and treatment services during any future COVID-19 peak.

Cancer Research UK support

Overview

Cancer Research UK is committed to supporting the national COVID-19 response as well as providing vital information to cancer patients in these difficult times. Our support includes:

- Providing continued patient information and support through our helpline services and website
- Influencing and supporting change in cancer services through our continued engagement with health service partners (such as Cancer Alliances and Health Boards) and GP practices.
- Repurposing laboratories across our network to respond to calls for equipment to help test for the COVID-19.
- Enabling voluntary redeployment for our academic staff so they can support at the frontline
- Shifting our research to support the generation of COVID-19 vaccines and understanding the impact of COVID-19 in cancer care.

Research into the impact of COVID-19 on cancer care

To support our understanding of the impact of COVID-19 on cancer care, we are instigating research and analysis into the following questions:

Research question	Geography	Estimated delivery of results
How can we support a return to full cancer services?	UK	TBC
How is COVID-19 impacting recognition and referral of cancer?	UK	TBC
How is COVID-19 impacting screening?	UK	TBC
How is COVID-19 impacting cancer treatment?	UK	TBC
What are the implications of COVID-19 on cancer workforce demand?	UK	TBC
How is COVID-19 impacting cancer outcomes?	UK	TBC
How is COVID-19 impacting cancer patient experience? • What has been the impact of COVID-19 on cancer patient treatment and care? (including palliative care) • What do cancer patients think of any changes to their treatment and care? • What support do cancer patients need? • What has been the impact of COVID-19 on cancer patients' day to day lives and well-being? • What do cancer patients think CRUK should be doing now and after COVID-19? • What do cancer patients think the government should be doing now and after COVID-19?	UK	June/July 2020
What is the impact of COVID-19 on healthcare professional clinical practice and perceptions?	UK	September/October 2020
What is the impact of COVID-19 on public attitudes and behaviours around cancer?	UK	November/December 2020

We will use these findings, along with insights from our patient, health professional and policy networks, to continue supporting the cancer services recovery as we move through and beyond the COVID-19 pandemic.

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