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THE SOCIETY & COLLEGE
OF RADIOGRAPHERS



The Royal College of Radiologists

Call for evidence from the Commons Select Health and Social Care Committee for the inquiry into 'Delivering Core NHS and Care Services during the Pandemic and Beyond'

Response with respect to cancer services from The Royal College of Radiologists and The Society and College of Radiographers - 27th April 2020.

Introduction

From the outset of the COVID-19 emergency, it was made clear by the government and NHS nationally that cancer services should continue to be prioritised and maintained throughout as far as possible. However, it has become apparent that there are significant challenges to this paradigm that arise at various points in the cancer pathway - from screening and diagnosis through to treatment and care. Even prior to COVID-19, the throughput via this pathway fell below what was needed to consistently meet national cancer targets, restricted by capacity with respect to both equipment and workforce. It is now more imperative than ever to recognise that the optimal delivery of cancer services is fundamentally reliant on the effective working of each of these interdependent pathways and restoration of one without concurrency of the others would be of limited benefit.

Below we summarise what we perceive to be the key affected areas of the cancer pathway. Moving forward, we recommend consideration of an integrated, cross-sector, cross-specialty approach that will urgently address the highlighted issues, and coordinate the identified solutions in order to avoid significant detriment to cancer services in the era of COVID-19.

1) Early diagnosis

A significant proportion of unintended harm in cancer services may arise from the reduced early detection and diagnosis of potentially curable disease. This is consequent upon three key factors:

Primary Care referrals

The COVID-19 pandemic has seen a significant decline in patients presenting to primary care with signs and symptoms of cancer and a consequent drop in urgent 'two-week wait' referrals to around 25% of normal levels in England with an equivalent conversion rate (*unpublished figures from NHSE/I, cited in a draft Strategy for Critical Services Provision*). This is not surprising as far fewer people are attending their GP practice in light of current messaging with respect to social distancing and protecting the NHS as well as an understandable fear amongst the general public of contracting COVID-19 infection. However, should this continue, around 2000ⁱ cancer cases across the UK may go undiagnosed per week and these will accumulate over time.

Tele-medicine is being introduced at pace in Primary Care as is the use of point-of-care investigations such as the Faecal Immunochemical Test (FIT), for example, to assist GPs in risk stratifying those presenting with symptoms of bowel cancer. These changes in practice need to be supported and developed. There has been a welcome recent change in messaging to the public that Primary Care remains open despite current measures and consideration should now be given as to how to encourage those with worrying symptoms to attend as they normally would.

Screening Programmes

National screening programmes for breast, bowel and cervical cancer have been paused across the UK. This will result in around 200000ⁱⁱ people per week no longer being screened for these cancers across the UK, significantly reducing the detection of early stage disease. The more protracted the time period screening programmes remain on hold, the more likely it is there will be a subsequent increase in the presentation of more advanced disease with reduced chance of cure, and a requirement for more complex multi-modality oncology treatments with additional toxicity. Attention must be given to restoring screening services as soon as possible in a safe and practical manner taking into consideration, as discussed below, the practical capacity challenges this now holds amidst COVID-19.

Diagnostic tests

Restoration of screening will be of limited benefit without the concomitant re-introduction of any subsequently required diagnostic tests. Diagnostics form the crux of the inception of cancer pathway and are heavily reliant on endoscopy, imaging and histopathology services, all of which were capacity-stretched pre-COVID-19. Currently, with concerns over procedural aerosol generation, most gastrointestinal endoscopy services (e.g. colonoscopy required for diagnosis of bowel cancer) are only running a limited emergency service. A significant amount of routine and elective imaging has been deferred or halted and histopathology services are strained amidst heightened pressure from C-19 testing.

This accumulating backlog of diagnostic testing across all three domains will only serve to exacerbate their capacity issues in both the recovery phase and beyond. With respect to imaging, further pressures may arise from the need to re-image those cancer patients whose definitive treatments may have been put on hold as well as the build up of those whose 'routine' imaging has been delayed e.g. surveillance, treatment response scans. Furthermore, CT scanning of the abdomen has at present been substituted as a diagnostic test for bowel cancer stratified by FIT testing but with reduced sensitivity and specificity in comparison with CT colonoscopy. Until the restoration of endoscopy services, this is likely to continue with additional strain on imaging capacityⁱⁱⁱ.

To restore diagnostic services safely for both patients and staff in the face of endemic COVID-19, additional precautions will be required which will further reduce throughput and capacity. The delivery of aerosol generating diagnostic endoscopy procedures will require appropriate Personal Protective Equipment (PPE) and deep cleaning of equipment and rooms between patients. Similarly, imaging services will require additional time between appointments to allow for cleaning of scanners, particularly if a deep clean is required. Ideally patients with suspected or confirmed COVID-19 should be segregated and imaged on separate equipment but this will only be feasible in departments with sufficient facilities and staff.

Urgent consideration needs to be given as to how diagnostic services can be restored safely, efficiently and in a manner that will address the considerable demand and capacity issues described. The RCR has developed interim guidance on this issue which will be released shortly. Moving forward, the provision of local or regional 'cold' sites, to be kept as 'COVID-protected' as possible, for screening, diagnostics and treatment of cancer needs to be strongly considered. This could be within regular secondary care facilities or through the use of community mobile units or independent sector capacity. Within this model, appropriate C-19 testing and isolation protocols for patients can be implemented to reduce risk both to them and staff and also to facilitate throughput by reducing the requirement for full deep cleaning between patients. Together with the routine frequent testing of staff working in these sites, this has potential for a sustainable model for the safe delivery of these services in the increasingly likely era of endemic COVID-19.

2) Surgical Oncology

Surgery forms part of the curative treatment pathway in nearly 50% of cancer patients^{iv}. This is founded upon an excellent evidence base and any significant deviation away from it will ultimately result in poorer outcomes for patients.

Of all the therapeutic modalities within cancer services, essential cancer surgery and access to it has been the most severely affected by the COVID-19 pandemic. This has been multifactorial relating to the potentially severe infection risk in patients undergoing surgery, infection risk to staff, lack of surgical theatre capacity and lack of access to intensive care facilities which are often required for complex surgical oncology. National guidance has been issued with respect to the maintenance of essential cancer surgery founded on designated, regional, 'COVID-19-protected' surgical hubs and applying similar principles to those described above. However, the successful development of these hubs has been highly variable across the UK and there are some regions where there has been a near blanket loss in access to cancer surgery over the last few weeks. Even in areas where surgical hubs are up and running, there are still reports of reductions in operation rates of up to 50%. 'Holding' treatments are being utilised where possible and considered safe, for example, neoadjuvant hormone therapy for breast and uterine cancers, although these delays are not ideal and will only serve to add to the huge demand on surgical capacity during the recovery phase.

Referral pathways for some tumour sites are also changing with radiotherapy now being offered in place of surgery as an alternative curative treatment. Whilst this is appropriately within the evidence base for some cancers where the efficacies of the two modalities are equivalent, e.g. prostate cancer, there are others for whom we know surgery results in better outcomes. For example, in some types of oesophageal cancer, survival rates at five years for those having surgery are 50% compared to only 25% for those undergoing radiotherapy. These patients are therefore receiving suboptimal treatment for their cancer.

Restoration of cancer surgery through the establishment of regional 'COVID-19-protected' surgical hubs with robust isolation and testing protocols for patients and staff is critical. Consideration also needs to be given to the provision within these hubs for comprehensive imaging and image-guided intervention facilities which are needed for the management of post-operative complications. National variability suggests that significant liaison may be required at the level of some regional offices and Cancer Alliances to provide the intensive support required for instituting this model comprehensively.

3) Non-surgical oncology

Radiotherapy

From the outset of the COVID-19 pandemic, it was recognised that the continued safe delivery of radiotherapy would be challenging for a number of reasons: repeated hospital attendances required by patients undergoing curative therapy; the close interaction of staff and patients during treatment planning and delivery; and fluctuating staffing levels which limit capacity to treat. Where safe to do so, radiotherapy has been deferred e.g. prostate cancer patients on hormone therapy. Expert groups within the community collaborated^v to provide national guidance on evidence-based shorter fractionation schedules which have successfully been adopted, thereby reducing patient footfall in departments. Staffing levels have not impacted on capacity as much as anticipated and overall, it is felt that radiotherapy services nationally have been reasonably well maintained during the crisis.

However, the recovery phase poses significant new challenges to these services, particularly with respect to capacity. The demand for radiotherapy will increase considerably to account for:

- known deferred treatments
- altered referral pathways and an increase in the number of patients requiring radiotherapy instead of surgery
- an increase in referrals secondary to delays and backlog in diagnostics
- an increase in presentation of late stage disease more likely to need radiotherapy rather than surgery

The safe delivery of radiotherapy amidst ongoing prevalent COVID-19 will also require the same considerations as imaging services with respect to cleaning of scanners and treatment machines between patients and also the potential requirement for separate equipment for confirmed or suspected COVID-19 positive patients with additional throughput limitation. Frequent testing of patients and staff to keep C-19 transmission within the department as low as possible will also be required. The pending increased demand on radiotherapy services needs to be recognised and departments supported with the appropriate guidance and adequate resources required to safely meet and deliver it.

Chemotherapy

Chemotherapy services have been affected by COVID-19. Clinically, there has been concern that immunosuppressive treatments may make patients more vulnerable to severe complications of COVID-19 and as such the risks of treatment in some patients have been deemed too high. Data is currently being collected nationally that may help guide this risk-benefit analysis which is as yet poorly defined with a very limited evidence base. Logistically, at some centres, staffing levels have simply been insufficient to safely deliver therapies although appropriate stratification in accordance with national guidance has meant that delivery of high priority chemotherapy has generally been maintained. Moving forward, however, as with radiotherapy services, deferred treatments, altered referral pathways and a rise in presentation of more advanced (and potentially metastatic) disease will all increase the demand on chemotherapy services within the recovery phase.

Acute oncology and in-patient services

Overall, there is likely to be a significant increase in patients undergoing both radiotherapy and chemotherapy treatments, a sizeable proportion of whom may have advanced disease. These patients may require more in-patient hospital support for both treatment-related and disease-related complications including advanced palliative care input. Acute oncology and in-patient service demands are therefore both likely to increase in conjunction in the recovery phase.

4) Workforce

It is clear that the COVID-19 crisis has had an impact on cancer services and the recovery phase will undoubtedly result in significantly increased pressure at every point along the cancer pathway to address the backlog. The RCR and SCoR together represent clinical oncologists, clinical radiologists and diagnostic and therapeutic radiographers who make up a significant proportion of the multi-professional cancer services workforce. All of these professional groups were stretched beyond capacity^{viviviiiix} pre-COVID-19 and there are serious concerns about ongoing workforce shortages and the need to summon yet further reserves to meet increased demand moving forward. Radiographers, both diagnostic and therapeutic, remain on the Home Office Shortage Occupation list and are not included within the recent automatic extension to the Tier 2 visa which applies to doctors, nurses and paramedics. This is of concern. The problem will only be heightened in the era of endemic COVID-19 with some staff at high-risk being advised to avoid patient contact, others absent due to self-isolation or symptomatic illness and others taking a backlog of annual leave. Consideration needs to be given to strategies to help mitigate workforce issues in these

groups and others e.g. medical oncologists and medical physicists, in order to optimise capacity and reduce the negative impact on cancer care.

5) New ways of working

There are notable positive changes that have taken place within cancer services as a result of the COVID-19 pandemic and these should be built upon as circumstances normalise. Where there has been good investment in IT systems, robust remote access has facilitated centralised working, home reporting and virtual multi-disciplinary team (MDT) meetings whilst the efficiency of some out-patient services has been transformed by the use of telephone or video clinic appointments. The variable nature of these beneficial provisions has however highlighted the critical need for up-to-date, agile IT systems to be implemented at all centres nationwide. Similarly, further investment particularly with respect to IT systems is required to support the ongoing efficient development of the Operational Delivery Networks^x across radiotherapy services whose integrated functioning will be more important than ever amidst COVID-19.

Conclusion

The true extent of the disruption to cancer services that has occurred as a result of COVID-19 is yet to be fully elucidated. Delays in detection and diagnosis of cancer are a significant concern as is the considerable national variability in access to essential cancer surgery. A co-ordinated, integrated, adequately resourced response is urgently required across all services and sectors involved in the cancer pathway if the rapidly accumulating backlog is to be managed. Moving forward, in combination with an intensive mass COVID-19 testing strategy, the institution of local and regional sites relatively free of COVID-19 should be prioritised to provide a sustainable safe environment for continued diagnosis and treatment of cancer patients in the era of endemic COVID-19. This may also herald a real opportunity for the development of desirable new models of care possibly along the lines of rapid diagnostic centres (RDC), streamlining the cancer pathway and potentially significantly reducing the time from presentation to diagnosis and treatment.

i Cancer Research UK - Available at: <https://scienceblog.cancerresearchuk.org/2020/04/21/how-coronavirus-is-impacting-cancer-services-in-the-uk/>

[Accessed on 27.04.2020]

ii Cancer Research UK - Available at: <https://scienceblog.cancerresearchuk.org/2020/04/21/how-coronavirus-is-impacting-cancer-services-in-the-uk/>

[Accessed on 27.04.2020]

iii <https://www.bsgar.org/society/covid-19-and-bsgar-updates-1/>

iv National Cancer Registration & Analysis Service and Cancer Research UK: "[Chemotherapy, Radiotherapy and Tumour Resections in England: 2013-2014](#)" workbook. London: NCRAS; 2017

v <https://www.rcr.ac.uk/user/login?destination=/forums/clinical-oncology/clinical-oncology-coronavirus-covid-19-discussion-forum>

vi The Royal College of Radiologists. *Clinical oncology UK workforce census 2018*. London: The Royal College of Radiologists, 2018.

vii The Royal College of Radiologists. *Clinical radiology UK workforce census 2019*. London: The Royal College of Radiologists, 2019.

viii Cancer Research UK (2017) Full team ahead: understanding the UK non-surgical cancer treatments workforce'

viii Allied Health Professions – At the forefront of improving care – a year in review 2017/2018

Available at:

<https://www.hee.nhs.uk/sites/default/files/documents/AHP%20National%20Report%202017-18.pdf>

[Accessed on 27.04.20]

ix All Parliamentary Group on Radiotherapy (APPG-RT) 2019, Radiotherapy: Securing the future of Britain's secret lifesaver, Available at: https://e8604b0e-5c16-4637-907f-3091e4443249.filesusr.com/ugd/4fc3dc3_bd0f7f4ffeb84dd384a7f115914c0000.pdf?index=true [Accessed on 27.04.20]

x <https://www.england.nhs.uk/wp-content/uploads/2019/01/Operational-Delivery-Networks-for-External-Beam-Radiotherapy-Services-adults.pdf>