



Safer Radiotherapy

e-Bulletin #1

June 2020

Welcome to the Safer Radiotherapy (RT) e-bulletin, providing key messages and learning from radiotherapy error (RTE) reports and patient safety initiatives.

In 2010, PHE brought together representatives from The Royal College of Radiologists (RCR), the Society and College of Radiographers (SCoR), Institute of Physics and Engineering in Medicine (IPEM), NHS England & Improvement (NHSEI) and a lay representative to form a steering group to support the coordination of efforts to improve patient safety in RT across the UK. This work includes the collation, analysis and promulgation of learning from RTE reports.

*Anonymised RTE reports are submitted on a voluntary basis through the National Reporting and Learning System (NRLS) of NHSEI or directly to PHE, to promote learning and to minimise recurrence of these events. Safer RT accompanies the **Triannual RTE Analysis & Learning Report**, designed to disseminate learning from RTE to professionals in the RT community to positively influence local practice and improve patient safety.*

Published three times a year, the next issue will be shared in September 2020. To subscribe to future editions of the e-bulletin please follow this [link](#) and enter your email address. Please email radiotherapy@phe.gov.uk for advice on reporting and with comments and inclusions in the e-bulletin.

Thank you to all RTE reporters who facilitate this work.

Patient Safety in Radiotherapy Steering Group (PSRT) update

After 30 issues of the Safer Radiotherapy newsletter the format has changed to an e-bulletin. This is the first in the series of the e-bulletin which will be emailed directly to readers who subscribe to the *gov.delivery* service, available [here](#). The new format allows for a more flexible approach and timely delivery of key safety messages directly to stakeholders.

The **Triannual RTE Analysis & Learning Report** will include RTE trend analysis and a detailed case study. The case study will describe a significant RTE or series of RTE with recommendations on mitigating against these events. The case study will be drawn from anonymised data shared by the UK IR(ME)R inspectorates of closed notifications of significant accidental or unintended exposures.

RTE reporting during COVID-19 outbreak

PHE are continuing to receive, process and review monthly uploads of RTE from NHSEI (England and Wales) and RT providers in NI and Scotland. Working with the PSRT, PHE will maintain the e-bulletin and **Triannual RTE Analysis & Learning Report** publication schedule. We recognise pressures on the NHS are continuing to rise and the challenges facing clinical departments are unprecedented. The regular collection of RTE data remains important so where possible, please continue to submit RTE reports monthly to the NRLS & PHE. Thank you so much for your continued commitment to patient safety during these challenging times.

IR(ME)R: Implications for Clinical Practice in Radiotherapy

The RT Board guidance on the implementation of the 2017/2018 IR(ME)R will be published soon at www.rcr.ac.uk. This will support the RT and nuclear medicine therapy communities in the clinical implementation of the updated regulations.

Guidance on the implications for clinical practice in diagnostic imaging, interventional radiology and diagnostic nuclear medicine will also be available at the same site.

Advice from NHSEI on PSI reporting during COVID-19 outbreak

NHSEI encourage providers to continue submitting patient safety incident (PSI) reports. They advise that incidents collated nationally support the response to COVID-19, as well as the identification of patient safety issues for patients with other healthcare needs. Due to additional pressures on the NHS at the current time, NHSEI suggest organisations should prioritise regular uploads of incidents over quality checking. Also, NHSEI recommend each organisation have more than one person able to upload incidents to the NRLS; to register a new NRLS Reporting user click [here](#).

Radiotherapy Dataset (RTDS) reporting during COVID-19 outbreak

PHE would like to assure RT providers the RTDS is still able to receive data submissions and the RTDS team (rtds.helpdesk@nhs.net) is happy to offer support. The data collection remains important so please continue to upload monthly data submissions where possible. PHE has been drawing on this invaluable cancer data resource to inform the national response to the COVID-19 outbreak.

PHE are developing reports on **CancerStats2** to understand the clinical impact of COVID-19 on oncology services. The first report will use data from the RTDS to display how utilisation of radiotherapy has been affected, and possible changes to dose and fraction patterns for major tumour groups during the pandemic. This initial report is due to launch soon.

Protecting people with cancer from coronavirus when going for radiotherapy

The RCR, SCoR, IPEM, Macmillan Cancer Support and Cancer Research UK have issued **guidance** for patients with cancer when undergoing radiotherapy. It outlines precautions being taken by providers to protect this group during the pandemic.

CATCH – COVID Associated Temporal CHanges on CBCT

NCRI CTRad have launched a UK wide initiative to determine the impact of COVID-19 on RT patients and services. One study focuses on the opportunity to identify affected patients from incidental findings in review of thoracic CBCT scans in patients with lung cancer.

These scans are taken under locally defined protocols justified and used for treatment image guidance by therapeutic radiographers. They are not diagnostic scans, and although the primary focus for a therapeutic radiographer is not in the diagnostic process, incidental findings have always been escalated as a matter of good practice.

On-treatment CBCT may provide a valuable opportunity to systematically monitor for development of COVID-19 in a high-risk patient population, and thus assist cancer department infection control. Initial case reports have indicated that imaging changes may be observed on CBCTs in infected patients. To participate in this study and for further information email covidcbct@live.ucl.ac.uk.

NHS Improvement Patient Safety Incident Response Framework

The PSIRF is a key part of the **NHS Patient Safety Strategy** published in July 2019. It supports the strategy's aim to help the NHS to improve its understanding of safety by drawing insight from patient safety incidents. To test the PSIRF, NHSEI will first work with a small number of early adopters. This work has been delayed but will inform a final version of the PSIRF. Non-early adopter organisations must continue to use the existing **Serious Incident Framework**.

IMPaCCt survey investigating the impact of the coronavirus (COVID-19) pandemic is now live

Researchers at Queen's University Belfast and the University of Aberdeen, have opened an online research study investigating the impact of the COVID-19 pandemic on caregivers and patients with cancer, pre-cancerous conditions and rare diseases. Please access the survey [here](#).

Useful links for patient safety during the COVID-19 outbreak

- COVID-19: response from IR(ME)R inspectorates available [here](#)
- HCPC published factors to consider in applying each of the Standards of conduct, performance and ethics during the COVID-19 pandemic [here](#)
- RCR position on coronavirus (COVID-19) for clinical oncology is available [here](#)
- SoR Covid-19 information and resources are [here](#)
- IPEM – Covid-19 Policy and Advice Notes are [here](#)
- NICE rapid guideline: delivery of radiotherapy is [here](#)
- NHS England and NHS Improvement Clinical guide for the management of cancer patients during the coronavirus pandemic available [here](#)
- Information on CTRad's UK-wide initiative to study the impact of COVID-19 on radiotherapy services and patient outcomes is available [here](#)
- MHRA's website dedicated to reporting any suspected side effects from medicines, future vaccines and incidents involving medical equipment relating to COVID-19 treatment is available [here](#).

COVID RT – an initiative to study the impact of COVID-19 on UK radiotherapy patients & services

The aim of COVID RT, NCRI CTRad led **study** is to capture changes and understand their impact on radiotherapy services and patient outcomes across the UK during the pandemic. The initiative will not only focus on patients with COVID-19, but all radiotherapy patients, and will be complementary to the ongoing work of CTRad. So far over 37 of 62 sites have signed up.

Links to international patient safety resources

ASTRO and AAPM RO-ILS **Case Studies**

Autorité De Sûreté Nucléaire (French Nuclear Safety Authority) **Publications for Professionals**

IAEA, SAFRON **Updates on Patient Safety in Radiotherapy**

Medical Management of radiation injuries

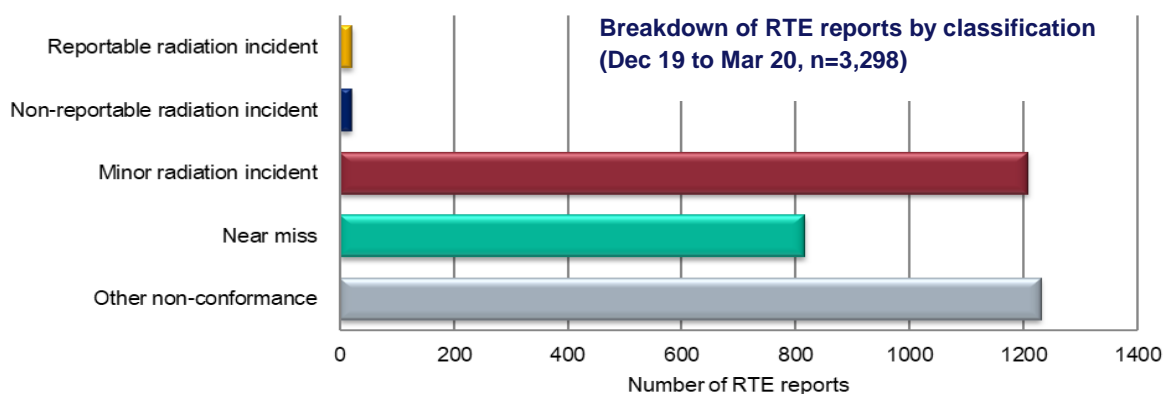
The IAEA **Safety reports series No 101** focuses on the medical management of individuals involved in radiation emergencies, especially those who have been exposed to high doses of ionizing radiation. Its primary objective is to provide practical information, to be used for treatment decisions by medical personnel during a radiation emergency.

RTE Data analysis: December 2019 to March 2020

The full detailed data analysis is available [here](#) and includes data on primary process subcoding, safety barriers (including methods of detection), causative factors, and the severity classification of the RTE. These taxonomies are described in the **Development of learning from RTE**. The following data offers a summary of findings. Submissions from 53 NHS UK providers contributed to this issue’s full data analysis. Seven providers have not reported RTE for this reporting period.

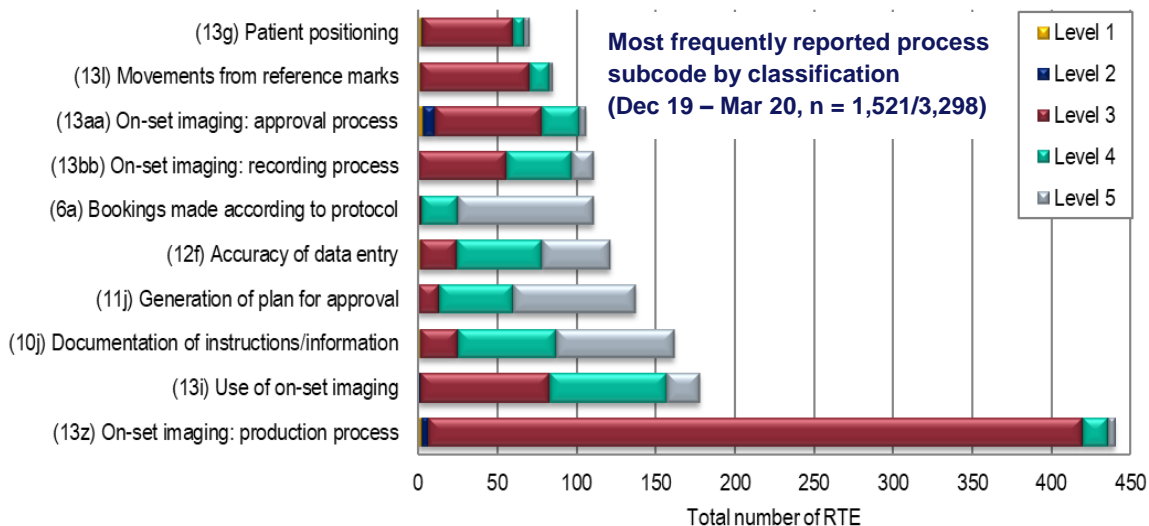
Classification of RTE

Of those 3,298 RTE reported, 3,257 reports (98.8%) were classified as minor radiation incidents, near misses or other non-conformances. These are lower-level incidents which would have no significant effect on the planning or delivery of individual patient treatments.



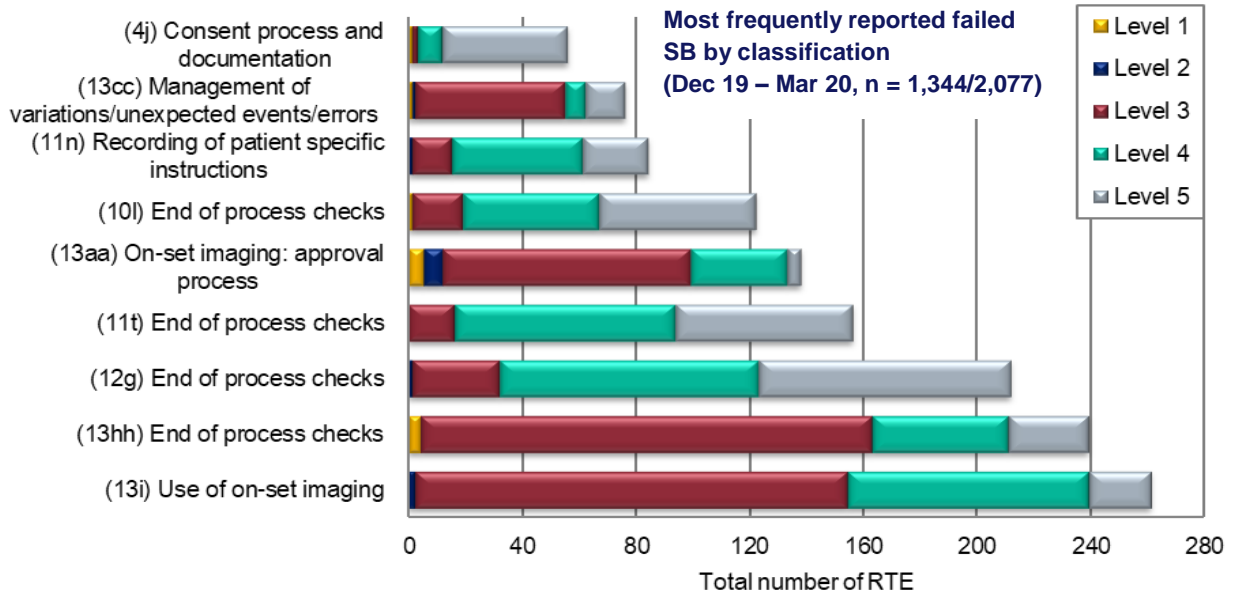
Primary process subcode

The most frequently reported points in the patient pathway where the RTE occurred are shown below. Consistent with the previous analysis ‘on-set imaging: production process’ is the most frequently occurring process code (13.3%, n = 440).

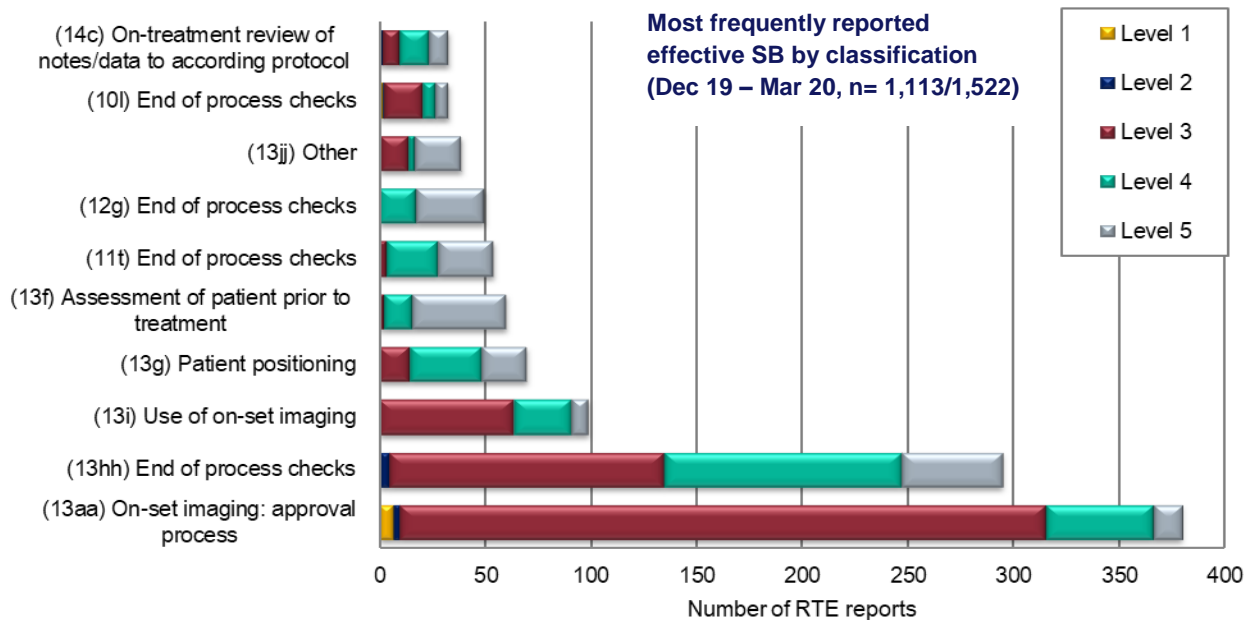


Safety Barriers (SB)

A total of 2,077 failed SB were identified in the RTE reported. The most frequently reported failed SB can be seen below. Treatment unit process ‘use of on-set imaging’ was the most frequently reported failed SB (12.6%, n = 261) and also the most frequently reported primary failed SB (16.9%, n = 178).



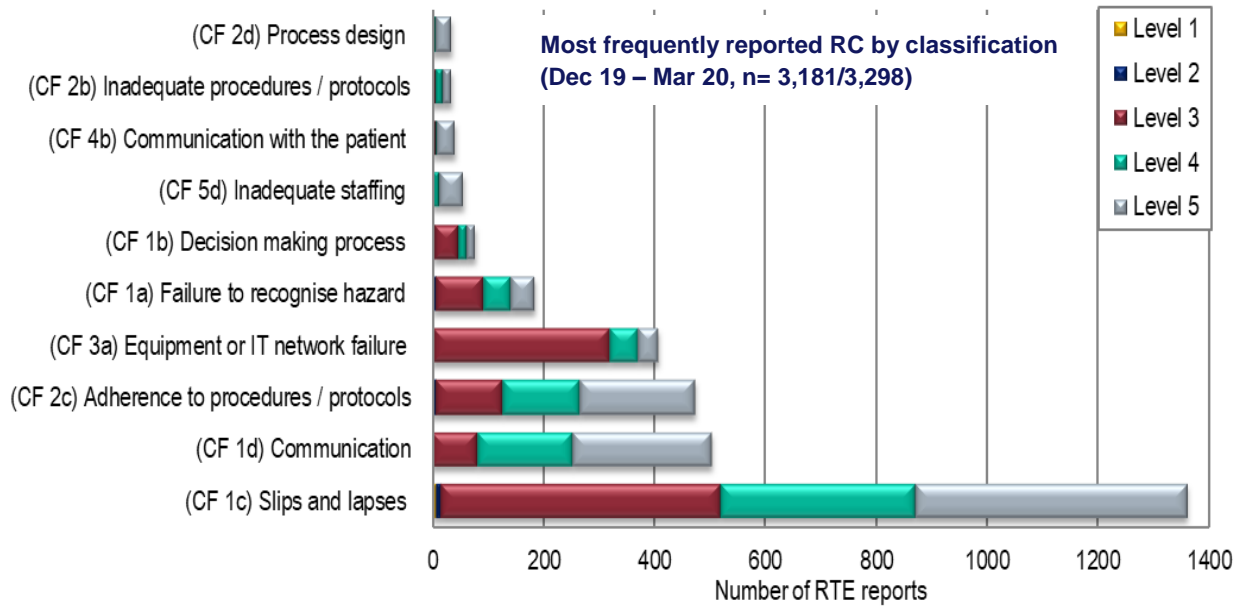
For this reporting period 1,522 reports contained effective SB or method of detection (MD). The most frequently reported effective SB was ‘on-set imaging: approval process’ (25.0%, n = 380).



Causative Factors

Causative factors were applied to 2,721 (82.5%) RTE reports by 45 (79.0%) providers for this reporting period. Using the free text shared in reports, PHE coded a further 577 reports, totalling 3,298 RTE reports for analysis. The primary factor is the root cause (RC) and the subsequent factors are contributory factors (CF) associated with an RTE. The most frequently reported RC was individual ‘slips and lapses’ (41.3%, n = 1,362). CF were indicated across 933 reports; 152 of these contained

multiple factors leading to 1,098 CF. The most frequently reported CF was 'adherence to procedures/protocols' (44.6%, n = 490).

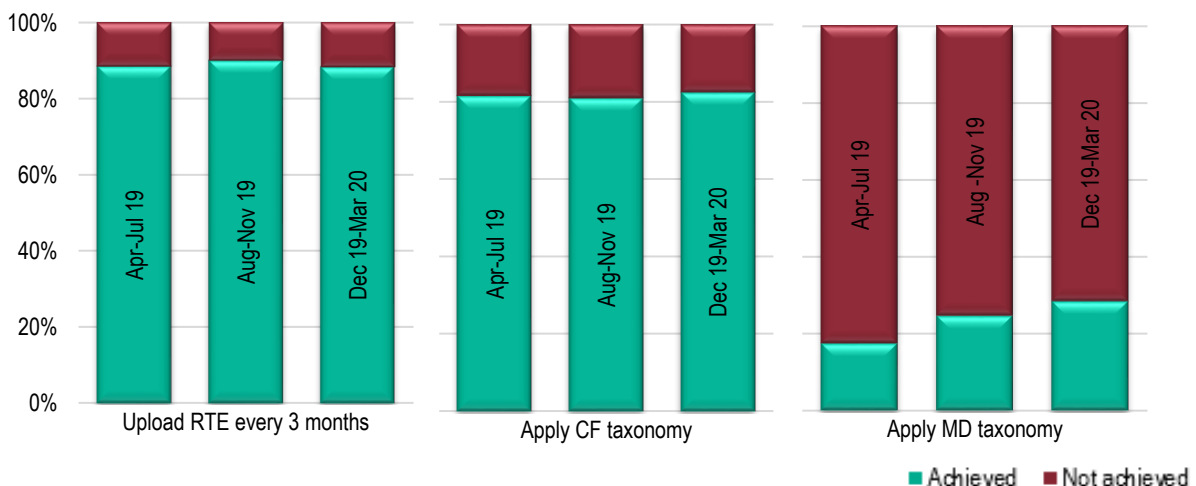


COVID related RTE

As the response to the COVID-19 pandemic was initiated in March a review of this dataset (covering December 19 to March 20) for COVID-related RTE was completed. No RTE directly associated with the COVID response were identified. It was noted there was no obvious impact on RTE trends for this reporting period. The search revealed 5 reports from March which were reviewed but due to current operational pressures at a provider level it was not possible to investigate further locally.

PSRT's targets for RTE reporting

The PSRT has set ambitious targets to improve specific areas of RTE reporting by September 2020. These include 100% of providers to report monthly and 100% of reports to include a causative factor (CF) and a method of detection (MD) code. The following graphs indicate how we are progressing with these targets. Help us meet these targets.



Guest Editorial

#covidsilverlinings

Petra Jankowska

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On 23 March, the UK was put into lockdown in an unprecedented step to attempt to limit the spread of coronavirus. For those working in cancer care, and particularly radiotherapy, life has never been busier. While there is national guidance on prioritisation of radiotherapy and systemic treatments, with clinicians deferring treatments that could safely and justifiably be deferred, most centres have continued treating patients across all Categories 1-3, with some tumour sites seeing an increase in referrals for radical radiotherapy due to limitations on surgical treatments. While this is ongoing, and in some cases increased, clinical activity has been taking place; we have seen an explosion of COVID specific meetings – executive, tactical, operational, governance – which have further challenged our time.

So why, do you ask, is the title of this editorial **#covidsilverlinings**? It is because throughout the mayhem and chaos, there have been some notable positive changes – in processes & working patterns, and behaviour that we would do well to retain after lockdown is reversed.

National collaboration: There has been a surge in collaborative efforts coordinated by RCR, SCoR and IPEM, to produce guidance on everything from radiotherapy treatment prioritisation to practicalities of treatment planning and delivery. Oh, that this turnaround time would continue for future efforts and with as much enthusiasm!

Meetings: Pointless meetings seem to have evaporated. Essential meetings are operated online (e.g. Skype, MS Meetings, Zoom) with the consequent efficiency of fewer late arrivals and less 'in-meeting' chat. 'Somewhat relevant' meetings allow the attendee to link without video, to facilitate multitasking in the background (perhaps not quite in the spirit of online meeting etiquette, but a useful function nevertheless for those with multiple roles and responsibilities).

Working from home: The discovery that staff WFH can be more productive has been nothing short of inspirational. Rotation of staff WFH affords all the opportunity to have days where they can complete work without interruptions, be that clinical (e.g. complex RT planning) or managerial (e.g. protocol writing, QI proposals).

Working processes: Remote clinics (telephone or video) allow patients who do not require physical assessment to discuss issues with clinicians (e.g. treatment options; early & late radiation effects) and avoid the need to travel to hospital – especially useful in more geographically remote parts of UK, or for those wishing to avoid travel on busy public transport systems.

Working environment: Fewer people in waiting areas as patients attend on their own has afforded a much calmer and more relaxed environment. Changing the entry and egress of patients into and out of radiotherapy departments has also helped focus the mind on standard infection prevention and control, despite being challenging for some departments.

Team Behaviour: For many interim service changes & improvements, the approach has been JFDI (just focus and do it), with significantly less of the usual bureaucracy

seen in the NHS. At the same time, people seem genuinely kinder and more considerate towards each other, and understanding of the pressures individuals are experiencing. The explosion of collaborative goodwill has been phenomenal, for example, many radiotherapy departments now offering regular CT slots to their diagnostic colleagues (with the appropriate arrangements in place) to ease the pressure on imaging departments.

Patient behaviour: With most departments having adjusted practices to allow for the anticipated surge in cases, and many having freed up 100s of beds for this, still patients have stayed at home unless necessary, and many beds remain empty. The anticipated carnage hasn't happened everywhere. It just goes to show that many of the previous patient admissions can be perfectly well-managed in the out-patient or community setting, so hopefully this can continue.

Wellbeing: Peer to peer online support groups, 1:1 clinical supervision (Skype or telephone), wellbeing 'hubs' offering a place to unwind and relax with a cuppa for a moment, and the surge in online (Twitter, Facebook, email) positive & inspirational messaging have all helped to let staff know they can access support and are appreciated. Free online access to culture (theatre, film, dance, music, art, book groups) as well as online exercise groups have helped us try to keep a healthy balance between work and leisure time – so important for our sanity.

One very real current concern however is that the massive drop in 2-week wait referrals seen is not real, and that there will be a surge in cancer referrals before too long that may overwhelm our departments unless we plan for this proactively. However, with all the positive behaviours described above, we've got this – we can do it, and stay safe in the process.

Thank you all.

6th Biennial RTE Analysis & Learning Report

The 6th 2-yr RTE report will be published [here](#) soon. A total of 18,853 RTE reports from UK NHS RT providers are presented. The report includes data from January 2018 to December 2019. The analysis contains comparisons to the previous biennial period (January 2016 to December 2017) and aggregate data (January 2010 to December 2019). The UK inspectorates for IR(ME)R also shared anonymised synopses of closed reportable radiation incidents from the same period for inclusion in the analysis.

As with previous reports the vast majority of the reports were lower level incidents having little or no significant effect on the planning or delivery of individual patient treatments. Of note, there was a slight decrease in the number of reportable events from 1.0% to 0.9%. Of these 12.5% were associated with 'on-set imaging: approval process'. Consistent with the previous report, the most frequently reported events continue to be associated with treatment unit processes (42.3%) and with 'on-set imaging processes' in particular (12.3%). An analysis of reported safety barriers highlighted 'use of on-set imaging' (10.5%) as the most frequently reported failed safety barrier and method of detection as 'on-set imaging: approval process' (22.9%). Finally, 'slips and lapses' (43.8%) was the most frequently reported root cause and 'adherence to procedures /protocol' (41.4%) the contributory factor.

This report includes detailed trend analysis, and enables benchmarking exercises and facilitates comparison of local analysis with the national picture.