

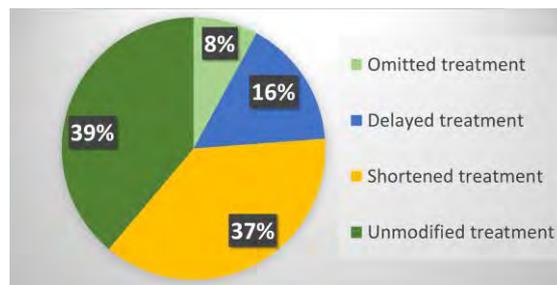
(ROs) clinical practice. In our department, we provided guidelines to the ROs regarding omission, delay, or shortening of radiotherapy (RT). The purpose was to reduce patient's exposure to the hospital environment and to minimize the departmental overcrowding. The aim of this study was to evaluate the ROs compliance to these guidelines.

Materials and Methods

ROs were asked to fill out a data collection form during patients first visits in May and June 2020. Collected data included: ROs age and gender, patient age and residence, RT purpose, treated tumor, dose and fractionation that would have been prescribed outside the pandemic, and RT changes (omitted, delayed, or shortened). The chi-square test and binomial logistic regression were used to analyse the correlation between treatment prescription and collected parameters.

Results

One hundred twenty-six out of 205 treatments prescribed during the evaluated period were included in this analysis. In fact, 79 treatments were excluded not being considered in the pandemic-adapted guidelines. Treatment was modified in 61.1% of cases. More specifically, treatment was omitted, delayed, or shortened in 7.9%, 15.9%, and 37.3% of patients, respectively. Unmodified treatments were 38.9% (Figure 1). Overall, the reduction of delivered fractions in our department was 27.9%. A statistically significant correlation ($p = 0.028$) between younger patients age and lower treatment modifications rate was recorded.



Conclusion

Our analysis showed a reasonably high compliance of ROs to pandemic-adapted guidelines. The adopted strategy was effective in reducing the number of admissions to our department.

PO-1454 Reduction in radiotherapy episodes as a result of the COVID-19 pandemic

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Purpose or Objective

The Coronavirus pandemic has affected all health services. While there was a large impact at the start of the pandemic, there has now been time for services to either start to catch-up, or to normalise with new protocols and guidelines, albeit likely with reduced capacity. However, services cannot force patients to enter pathways for diagnostics/treatment. Both patient and service factors contribute to a potential backlog of patients. Social deprivation might have an effect on this.

We estimate the reduction in number of radiotherapy (RT) patients at a large cancer treatment centre by looking at a 45-week timeframe before and after the first UK lockdown. This should give time for services to settle into operating under new protocols.

Materials and Methods

All RT data were obtained from the Christie NHS Foundation Trust's Big Data Radiotherapy project and deprivation data from the ONS. Scheduled RT treatments were paired with delivered RT data to show the exact number of patients and their RT episode (RTE) start date. [Multiple treatment start dates were eliminated if they related to the same prescription or to an additional prescription to the same primary tumour site within 28 days of the end of the previous RT for the same patient. \[ND1\]](#) This was linked to outward-postcode location and deprivation decile. Only postcodes that cumulatively made up 90% of RTEs were included. Radical/palliative RTEs were broken down for 6 cancer sites, which account for over 70% of the total number of RTEs.

The time-period for the study was RT start date 19/05/2019 to 31/01/2021. This gave 45 weeks of data before the 16/03/2020 UK lockdown (pre-COVID) and 45 weeks after (during COVID). Jan 2021 was the most recent complete month of data available. The data obtained were sorted and aggregated to enable comparison of the same factors pre-COVID and during COVID.

We used a 45-week average, instead of comparing a month to the same month in the previous year, due to natural monthly variation in RT delivery. E.g. Prostate RTEs in Feb 2019 were 30% higher than Feb 2018. Therefore, some of the change in activity would not be related to COVID.

Results

The total number of new RTEs during the 90-week time period was 13,065. Table 1 shows comparators between pre-COVID and during COVID. There was an estimated 685 (10%) fewer new RTEs during the first 45-weeks since COVID lockdown. Most cancer sites had an overall decrease in RTEs. A few sites showed an overall increase, likely due to using RT instead of surgery.

Surprisingly, there was no correlation between increased deprivation and greater reduction in new RTEs (correlation coefficient 0.17)

Data Item	Pre-COVID	During COVID	Percentage change during COVID-19
Number of Episodes	6875	6190	-10%
Average age	66	65	-
Percentage aged 70 and above	45%	42%	-
All radical episodes	4598	4159	-9.5%
All palliative episodes	2106	1930	-8.5%
All pre-operative episodes	152	90	-60.0%
Breast radical	1437	1198	-16.7%
Breast palliative	299	253	-15.5%
Prostate radical	793	751	-5.3%
Prostate palliative	375	352	-6.1%
Lung radical	666	625	-6.2%
Lung palliative	491	455	-7.3%
H&N radical	409	333	-18.6%
H&N palliative	47	52	+10.6%
Bladder radical	90	85	-5.6%
Bladder palliative	64	73	+14.1%
Rectum radical	82	113	+37.8%
Rectum palliative	73	63	-13.7%
Rectum pre-operative	135	78	-42.4%

Table 1. Changes in radiotherapy episode activity during COVID compared to pre-COVID. The greatest decrease is observed in pre-operative episodes and greatest increase observed in radical rectum episodes.

Conclusion

The COVID pandemic reduced the overall number of new RT episodes. This was not related to social deprivation. Changes in RTEs varied by cancer site and some activity is increasing back to pre-pandemic levels. However, activity is still generally lower than pre-pandemic and the backlog of patients is increasing.

PO-1455 Influence of the pandemic COVID-19 on medical physics practice: A flash survey in Spain

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Purpose or Objective

The outbreak of the COVID-19 pandemic affected the Spanish health system globally. We conducted a structured online survey among the Medical Physics departments in Spain. The primary objective of the work was to assess the impact that the COVID-19 pandemic had on our medical physics (MP) departments and evaluate how this situation affected their professional practices.

Materials and Methods

We conducted a survey during the first half of July 2020. The survey was distributed to all members of the Spanish Society of Medical Physics. Although we built an anonymous survey, it was possible to aggregate the results by region, type of centre (public or private), and professional category. The questionnaire consisted of a total of 27 questions.

We analysed changes in working conditions, the preventive measures adopted, and the extent to which the clinical and non-clinical tasks of the Spanish departments were affected during this period.

Results

Seventy-five hospitals responded to the survey (17 private, 53 public, five unidentified). According to the data provided by the Spanish Society of Radiation Oncology, 38% of the private centres and 78% of the public centres existing in our country responded. 83% of the respondents considered that their MP departments had adapted adequately to the new situation (88% of the departments distinguished between essential and secondary tasks). Figure 1 shows the respondents' perception about the degree of availability of both the personal protective equipment (PPE) and the PCR test, aggregated by region (the five with the most responses), and the distribution of surgical masks differentiating by public or private hospital. More than a third (37%) of the Spanish MP departments had at least one professional infected with COVID-19. Before the start of the pandemic, 95% of the MP departments did not telework. During the pandemic, 82% of the departments offered the option of working from home. As indicated in Figure 2, the quality of the tasks performed while working from home was not affected during this stage. Similarly, teleworking facilitated a better conciliation with private life (90%).

Figure 1: