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COVID-19 Rapid Letter

COVID-19 safe and fully operational radiotherapy: An AIRO survey depicting the Italian landscape at the dawn of phase 2

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Table 1
Summary of activity reorganisation in Italian RT departments during Phase 1 and Phase 2 and trend between the two phases.

| Therapeutic activity reorganisation | Phase 1 (18th March–3rd May 2020) | Phase 2 (4th May 2020–today) | Trend |
|-----------------------------------|------------------------------------|-------------------------------|-------|
| N (% )                            | N (% )                             | N (% )                       |       |
| **Procrastinating treatment on a case-by-case basis** | 46 (36.8) | 41 (46.1) |       |
| **Optimising home cures of symptomatic patients** | 17 (13.6) | 24 (27.0) |       |
| **Keeping only curative treatments otherwise not procrastinable** | 14 (11.2) | 2 (2.2) |       |
| **Favouring short-term treatments (hypofractionation)** | 51 (40.8) | 14 (15.7) |       |
| **Ongoing treatments interruption for particularly fragile patients** | 5 (0.04) | 13 (14.6) |       |

Outpatient activity reorganisation

| N (% )                            | N (% )                             |       |
|-----------------------------------|------------------------------------|-------|
| **No substantial change**         | 9 (0.07)                           |       |
| **Ordinary check-ups have been cancelled** | 80 (64.0) | 69 (77.5) |       |
| **First visits have been cancelled** | 2 (0.02) | 11 (12.4) |       |
| **Telematic consultations activated for cancelled visits** | 54 (43.2) | 15 (16.9) |       |

List of abbreviations: COVID-19: Coronavirus disease 19; N: number of centres.

NB: P1 results refer to the previously published work [Jereczek-Fossa BA, Pepa M, Marvao G, et al. COVID-19 outbreak and cancer radiotherapy disruption in Italy: Survey endorsed by the Italian Association of Radiotherapy and Clinical Oncology (AIRO) Radiother Oncol. 2020;149:89–93. doi:https://doi.org/10.1016/j.radonc.2020.04.061]. P2 results, instead, were collected in the context of the current investigation.

decrease of activity. Triage procedures put in place during P1 remained active in all facilities during P2 to limit the contagion. Analogously, with regards to admitted patients, most measures adopted during P1 were maintained during P2. (121/482 surgical masks, 89 (100%); gloves, 13 (15%); hydro-alcoholic solution prior to entry 59 (66%); interpersonal distancing, 85 (96%).) In P2 a marked increase in the supply of all PPE was registered, especially for FFP2 and FFP3 (from 49.6% to 64% and from 9.6% to 13.5%, respectively, for the radiation oncologists. Meetings were allowed as per usual in 6 (7%) centres, with restrictions (i.e. interpersonal distancing) in 68 (76%), and in remote settings in 37 (42%). Remote working solutions for non-medical staff was maintained in the transition from P1 to P2 in 37 (42%) centres, and an additional 7% (6) of centres also enforced this working modality for radiation oncologists. In P2 a drop in the quarantined personnel was registered, with 80 (90%) of the centres registering no staff in quarantine against 50 (56%) centres during P1. Six and two centres registered 1 and 2 unit of quarantined staff respectively during P2. A single COVID-19 related fatality was reported among the personnel. Thirty-one centres (35%) reported positive or suspect cases among staff. In particular, 15/231 (6.5%) radiation oncologists, 23/302 (7.6%) RT technicians, 13/97 (13%) nurses, 1/49 (2%) administrative units and 2/101 (2%) physicists were tested positive. Thirty-nine (44%) centres reported COVID-19 positive cases among patients both before the start of RT and during treatment in P1 or P2. Out of these, 29 centres discontinued treatment of all positive cases, five proceeded with treatment for asymptomatic patients, and three continued RT for asymptomatic patients excluding chest tumour patients. For patients with a documented contact with a positive subject, the majority of the RT facilities requested a swab (25/48 52.1%) while 9/48 (18.8%) decided for a temporary interruption of the treatment. Fourteen centres instead opted for continuing the treatment, with (10/48, 20.8%) or without (4, 8.3%) extra precautions.

The previous investigation [3] revealed that the prime focus of RT centres during P1 was to guarantee the continuity and the safety of the treatments for patients with high-risk conditions, while minimising undue risk for cases for which care can be safely deferred. Thanks to all the adopted measures to limit contagion among staff and patients, the pandemic effect on the Italian RT centres during P1 was, ultimately, modest, with most centres (55, 61.8%) reporting no reduction or a decrease in clinical activity not higher than 10%. Therefore, the average reduction of clinical activities in Italy turned out to be much less marked than that of Europe (38% centres reporting a reduction <80%) and US (84% centres reporting a reduction <80%) [4]. The preventive measures put in place remained virtually unchanged during the transition from P1 to P2. This was reflected by the proportion of centres registering positive cases which dropped down from 43.8% in P1 to 10.1% in P2, and in the maximum reported number of positive staff cases per centre, which decreased from 18 to 2. The reduction of registered daily cases is imputable to the strict safety measures adopted and not to the decrease in number of treated patients. On the contrary, with the advent of P2, RT Directors globally reported a progressive realignment with the pre COVID-19 era workload for both outpatient and clinical activities, with a partial or complete reactivation of the previously interrupted or postponed treatments, also thanks to the several guidelines published to help clinicians coping with the novel pandemic scenario [5–14,15–17]. Therefore, the present survey demonstrated how the planned pro-
gressive return to a novel routine during P2 has been attained by most Italian RT centres, maintaining high safety standards against a possible new spread of the infection and registering a lower number of positives cases among both patients and health professionals despite the resumption of a pre COVID-19 era workload. Such reorganisation will be crucial in prevention of the potentially detrimental impact of a possible second wave of pandemic on the society and health system.

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Conflicts of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Authors’ contribution

BAJF, MP, MZ, GM, RC and VD were responsible for conception and design of the study and wrote the first draft of the manuscript. AB, MB, GC, ARF, PF, MAG, DG, GI, AM, LM, iM, AM, MM, DM, RP, SP, VT, MT, MCL were responsible for data collection and wrote sections of the manuscript. BAJF, MP, MZ and GM were responsible for data analysis. All authors contributed to manuscript revision and read and approved the submitted version.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.radonc.2020.09.049.

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