



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



## Letter

# COVID-19 Pandemic as an Opportunity for the Radiotherapy Department



*Madam* — As healthcare processes are being disturbed by the COVID-19 pandemic, providing cancer care is becoming increasingly challenging. Recommendations on the rationalisation of radiotherapy have already been published by leading experts [1–7]. The common ground is primarily to provide pragmatic strategies for risk mitigation, without compromising treatment outcomes. Nevertheless, an opportunity has presented itself for those radiotherapy departments that have been deliberating the implementation of organisational and therapeutic changes.

Building on the experience of our institution, we provide initial insights on exploiting COVID-19 as a positive stimulus for optimising the radiotherapy department. Fortunately, preventive measures were taken early after the virus outbreak in Italy, our neighbouring country. Screening patients before arrival and, if indicated, testing for COVID-19 proved to be an effective approach. In line with an action plan that encouraged social distancing between employees and a reduction in unnecessary consultations, substantial changes were made within our department:

- (i) A considerable shift towards hypofractionation. Although normofractionation was partly practised before, hypofractionation was demanded for justified indications. In adjuvant breast cancer radiotherapy (25% of irradiated patients), hypofractionation increased from 65% to over 80% (all breast cases) and from 86% to 98% (excluding regional nodes cases). Cardiac sparing is achieved using prone positioning and voluntary deep inspiration breath-hold as an alternative to active breathing control due to droplet precautions.
- (ii) Rapid implementation of remote working. Access to hospital information systems as well as contouring and planning from home was made possible for staff members. A working group was established to implement a paperless workflow.
- (iii) Update of clinical guidelines and protocols. Time spared with a moderately reduced workload was

put into in-depth review and updating a number of documents.

Adjustments were only possible because the situation remained under control without reaching the maximum capacity of the healthcare system, and thanks to adequate decision-making of the departmental leadership. The consequences of COVID-19 are here and will last a while, so let us use them to our advantage.

## Conflict of interest

The authors declare no conflict of interest

M. Orazem, I. Ratoso  
 Department of Radiation Oncology, Institute of Oncology Ljubljana,  
 Ljubljana, Slovenia

## References

- [1] Coles CE, Aristei C, Bliss J, Boersma L, Brunt AM, Chatterjee S, *et al.* International guidelines on radiation therapy for breast cancer during the COVID-19 pandemic. *Clin Oncol* 2020;32(5): 279–281. <https://doi.org/10.1016/j.clon.2020.03.006>.
- [2] Thomson DJ, Palma D, Guckenberger M, Balermipas P, Beitler JJ, Blanchard P, *et al.* Practice recommendations for risk-adapted head and neck cancer radiotherapy during the COVID-19 pandemic: an ASTRO-ESTRO consensus statement. *Int J Radiat Oncol Biol Phys* 2020. <https://doi.org/10.1016/j.ijrobp.2020.04.016>. S0360-3016(20)31034-8.
- [3] Guckenberger M, Belka C, Bezjak A, Bradley J, Daly ME, DeRuysscher D, *et al.* Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic: an ESTRO-ASTRO consensus statement. *Radiother Oncol* 2020. <https://doi.org/10.1016/j.radonc.2020.04.001>. S0167-8140(20)30182-1.
- [4] Curigliano G, Cardoso MJ, Poortmans P, Gentilini O, Pravettoni G, Mazzocco K, *et al.* Recommendations for triage, prioritization and treatment of breast cancer patients during the COVID-19 pandemic. *Breast* 2020;52:8–16. <https://doi.org/10.1016/j.breast.2020.04.006>.

- [5] Zaorsky NG, Yu JB, McBride SM, Dess RT, Jackson WC, Mahal BA, *et al.* Prostate cancer radiotherapy recommendations in response to COVID-19. *Adv Radiat Oncol* 2020. <https://doi.org/10.1016/j.adro.2020.03.010>.
- [6] Tchelebi LT, Haustermans K, Scorsetti M, Hosni A, Huguet F, Hawkins MA, *et al.* Recommendations on the use of radiation therapy in managing patients with gastrointestinal malignancies in the era of COVID-19. *Radiother Oncol* 2020; 148:194–200. <https://doi.org/10.1016/j.RADONC.2020.04.010>.
- [7] Krengli M, Ferrara E, Mastroleo F, Brambilla M, Ricardi U. Running a radiation oncology department at the time of coronavirus: an Italian experience. *Adv Radiat Oncol* 2020. <https://doi.org/10.1016/j.adro.2020.03.003>.