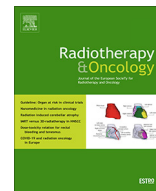




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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.



COVID-19 Rapid Letter

Prioritization on palliative radiotherapy during the COVID-19 pandemic (and beyond)^{*}



To the Editor

The Covid-19 pandemic imposes reflections on the priorities of oncological treatments, and particularly on the balance between benefits by receiving radiotherapy (RT) and the increased infective risk. A shared perspective is discriminating (by prioritization) the treatments not to be delayed or omitted from the ones suitable for such an option [1,2]. van deHaar et al. provided a priority list for RT and addressed the issue of available resources to deliver RT in each Department along different phases of the infective spread, due to possible personnel limitation [3]. Nevertheless, in their excellent overview the proposed priority order for RT indications is not adapted through the proposed grades of available resources. Moreover still no validated tool to exactly predict the risk of infection by accesses to Hospital is available, often limiting choices to clinician's judgment. That makes harder to take decision on when provide RT, and palliative RT (PRT) in particular. Some Authors provided separated indication to PRT for early and later infection spread phases, depending of RT personnel resources availability [4,5]. Still the priority for PRT remains an issue. Some proposed solutions widely range from limiting palliative RT to emergencies [6], or even considering it for "Covid positive" patients [7]. A shared perspective is to delay or omit PRT if an efficient alternative can be offered [8,9]. Considering that issue by a general perspective, we do not agree with the assumption that curative intent is more prior than the palliative one by itself (in presence of full availability for RT administration). For the 2 major oncological aims (cure and palliation) the pursued outcomes, measured by the most proper endpoint (i.e.: overall Survival -OS- for cure and quality of life -QoL- for palliation, respectively) are equivalent by patient's perspective. Until we will not be forced by infective spread to restrict the RT administrable to our patients, palliative and curative settings should meet the same priority. A consequent question is the grade of improvement gained for each endpoint by a certain treatment option (e.g.: how much the optimal endpoint is improved by RT for a certain palliative treatment) and if that could be similarly obtained by alternative approaches. Supposing pain as example (one of the most frequent issues in palliative settings), the main alternative optimization to PRT is repre-

sented by analgesic drug administration. Of note, pain control in itself is not the best endpoint to base the selection of an "alternative optimization" on: QoL should be instead. RT has been clearly shown of high pain control rates [10], also if analgesic drug modification is accounted, and significantly improves QoL for palliative pain management [11,12]. If PRT is not administered when indicated, the possibly needed dose escalation of medical analgesic therapy can determine side effects affecting QoL although controlling the pain level (beside the cost-effective impact on Health Services by missed drug medication's reduction). Separately administering either PRT or medical analgesic therapy should not be considered equivalent by radiation oncologists: the concomitant integration of both, and modulation over time represents the gold standard. In conclusion, we highlight the need for radiation oncologists to do not set palliative indications at priority level different from any other presentation until the current resources will permit it. We stress the need for careful evaluation of alternative options to PRT through case personalization and routine use of prognostic scores. We recommend considering off-line preliminary evaluations for all palliative request (not only emergency) and we recommend providing fast track PRT administration when possible.

References

- [1] COVID-19 rapid guideline: delivery of radiotherapy. NICE – National Institute of Health and Care Excellence. www.nice.org.uk/guidance/ng1622020.
- [2] Combs SE, Belka C, Niyazi M, Corradini S, Pigorsch S, Wilkens J, et al. First statement on preparation for the COVID-19 pandemic in large German Speaking University-based radiation oncology departments. *Radiat Oncol* 2020;15:74.
- [3] van de Haar J, Hoes LR, Coles CE, Seamon K, Fröhling S, Jäger D, et al. Caring for patients with cancer in the COVID-19 era. *Nat Med* 2020;26:665–71.
- [4] 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;146:223–9.
- [5] Thomson DJ, Palma D, Guckenberger M, Balermipas P, Beitler JJ, Blanchard P, et al. Practice recommendations for risk-adapted head and neck cancer radiation therapy during the COVID-19 pandemic: an ASTRO-ESTRO Consensus Statement. *Int J Radiat Oncol Biol Phys* 2020.
- [6] Yerramilli D, Xu AJ, Gillespie EF, Shepherd AF, Beal K, Gomez D, et al. Palliative radiotherapy for oncologic emergencies in the setting of COVID-19: approaches to balancing risks and benefits. *Adv Radiat Oncol* 2020.
- [7] Tagliaferri L, Di Stefani A, Schinzari G, Fionda B, Rossi E, Del Regno L, et al. Skin cancer triage and management during COVID-19 pandemic. *J Eur Acad Dermatol Venereol* 2020.
- [8] Yahalom J, Dabaja BS, Ricardi U, Ng A, Mikhaeel NG, Vogelius IR, et al. ILROG emergency guidelines for radiation therapy of hematological malignancies during the COVID-19 pandemic. *Blood* 2020.
- [9] Simcock R, Thomas TV, Estes C, Filippi AR, Katz MA, Pereira JJ, et al. COVID-19: global radiation oncology's targeted response for pandemic preparedness. *Clin Transl Radiat Oncol* 2020;22:55–68.
- [10] Chow E, Hoskin P, Mitera G, Zeng L, Lutz S, Roos D, et al. Update of the international consensus on palliative radiotherapy endpoints for future clinical trials in bone metastases. *Int J Radiat Oncol Biol Phys* 2012;82:1730–7.

^{*} The Editors of the Journal, the Publisher and the European Society for Radiotherapy and Oncology (ESTRO) cannot take responsibility for the statements or opinions expressed by the authors of these articles. Practitioners and researchers must always rely on their own experience and knowledge in evaluating and using any information, methods, compounds or experiments described herein. Because of rapid advances in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made. For more information see the editorial "Radiotherapy & Oncology during the COVID-19 pandemic", Vol. 146, 2020.

- [11] Westhoff PG, de Graeff A, Monnikhof EM, Pomp J, van Vulpen M, Leer JW, et al. Quality of life in relation to pain response to radiation therapy for painful bone metastases. *Int J Radiat Oncol Biol Phys* 2015;93:694–701.
- [12] McDonald R, Ding K, Brundage M, Meyer RM, Nabid A, Chabot P, et al. Effect of radiotherapy on painful bone metastases: a secondary analysis of the NCIC Clinical Trials Group Symptom Control Trial SC.23. *JAMA Oncol* 2017;3:953–9.

Francesco Cellini^{a,*}

Stefania Manfrida^a

Maria Antonietta Gambacorta^{a,b}

Valentini Vincenzo^{a,b}

^a *Fondazione Policlinico Universitario “A. Gemelli” IRCCS, UOC di Radioterapia Oncologica, Dipartimento di Diagnostica per Immagini, Radioterapia Oncologica ed Ematologia, Roma, Italy*

^b *Università Cattolica del Sacro Cuore, Istituto di Radiologia, Roma, Italy*

* Corresponding author at: L.go A. Gemelli 8, 00168 Rome, Italy.

E-mail addresses: francesco.cellini@policlinicogemelli.it (F. Cellini), stefania.manfrida@policlinicogemelli.it (S. Manfrida), magambacorta@rm.unicatt.it (M.A. Gambacorta), vincenzo.valentini@unicatt.it

(V. Vincenzo)

Received 24 May 2020

Accepted 20 June 2020

Available online 1 July 2020