



Editorial

Radiotherapy and Systemic Treatment for Non-melanoma Skin Cancer in the COVID-19 Pandemic

A. Rembielak^{*†}, A.J. Sykes^{*}, K. Fife[‡], A. Challapalli[§], J.P. Nobes[¶]^{*}The Christie NHS Foundation Trust, Manchester, UK[†]The University of Manchester, Manchester, UK[‡]Addenbrooke's Hospital, Cambridge, UK[§]Bristol Cancer Institute, UHB NHS Foundation Trust, Bristol, UK[¶]Norfolk and Norwich University Hospital, Norwich, UK

Received 23 April 2020; accepted 27 April 2020

The current COVID-19 pandemic is unprecedented in living memory and is affecting everyone, including our patients. It is increasingly important to provide the optimal management for patients with different non-melanoma skin cancers (NMSC). NMSC surgery has almost completely ceased over recent weeks. This is affecting already overstretched radiotherapy departments, with increasing numbers of patients being referred for definitive radiotherapy. Capacity and demand analysis and forecasting are taking place almost daily in radiotherapy departments across the UK in an attempt to manage this.

We have put together the following guidance for the management of NMSC patients in radiotherapy departments, taking into consideration the risk patients face from both cancer and infection.

General Advice

- Many patients diagnosed with NMSC are elderly and frail with multiple comorbidities. Most patients who present with basal cell carcinoma pathology usually have a longstanding condition and are asymptomatic, or only mildly symptomatic, from their NMSC. In view of the real threat from the coronavirus, particularly in elderly patients and/or with comorbidities, including life-threatening conditions, their treatment with radiation should be deferred for at least

3–4 months, pending further review of the situation [1].

- Individual treatment centres should follow the recently published 'COVID-19 rapid guideline: delivery of radiotherapy' [2] and adapt their strategy based upon staffing, capacity and structure.
- If radiotherapy treatments need to be prioritise, centers should follow NICE guideline NG162. The guideline introduces COVID-19 priority levels in radiotherapy from 1 to 5 to help make treatment decisions [3].
- Departments should consider how they will deliver radiotherapy to NMSC patients who are COVID-19 positive or suspected on clinical grounds.
- Proposed changes to current treatment pathways should be discussed within skin or head and neck local or specialist multidisciplinary teams and any unforeseen consequences of COVID-19 effectively communicated with colleagues and patients.
- The Royal College of Radiologists' clinical oncology online forum and other professional forums should be used to seek advice from colleagues.
- All changes in standard management should be clearly recorded in the patient record and discussed with the patient/family/carers.

Definitive and Postoperative Radiotherapy

- All radiotherapy treatments for basal cell carcinoma, definitive and postoperative, including incompletely excised, should be halted during the COVID-19 pandemic.

Author for correspondence: A. Rembielak, The Christie Hospital, Manchester, UK.

E-mail address: agata.rembielak@christie.nhs.uk (A. Rembielak).

- For cutaneous squamous cell carcinoma (cSCC), Merkel cell carcinoma (MCC) and rare skin pathologies, definitive radiotherapy treatment should be considered (priority level 1 or 3) with modified fractionation, if possible.
- cSCC, MCC and rare skin pathologies incompletely excised should be considered for deferred radiotherapy in 2–3 months. These patients are generally elderly and should avoid hospitals wherever possible.
- Special consideration needs to be given to immunocompromised patients, including post-transplant, in whom the risk of contracting the virus and developing COVID-19 is substantial. The benefit of post-operative radiotherapy should be carefully weighed against the risk of exposure to the virus and deferred radiotherapy or close clinical monitoring should be considered, particularly in closely excised lesions.
- Omitting adjuvant radiotherapy should be considered where the benefit is likely to be limited and may be outweighed by the risks, e.g. patients with closely excised cSCC <1 mm or with minor risk factors who would normally have been considered at lower/intermediate risk of recurrence (priority 5).
- Patients with closely excised cSCCs at high risk of recurrence could have a clinical review by the referring surgeon/dermatologist in 3–4 months regarding the possibility of further surgery or adjuvant radiotherapy.
- Hypofractionated radiotherapy regimens should be considered to reduce the number of patient visits to hospital [4]. This will reduce the risk of exposure to the virus for both patient and staff and reduces the overall burden to radiotherapy departments. Departments may consider less frequently used but equally efficient hypofractionation schedules, e.g. 32.5 Gy in four fractions instead of 35 Gy in five fractions, 40 Gy in eight fractions instead of 45 Gy in 10 fractions, 50 Gy in 15–16 fractions instead of 55 Gy in 20 fractions.

Palliative Treatment

- Palliative radiotherapy should only be delivered where the benefits clearly outweigh the current risks.
- Currently, palliative radiotherapy is regarded as priority 4, where ‘alleviation of symptoms would reduce the burden on other healthcare services’. Single fraction or shorter fractionated schedules, depending on the clinical scenario, should be considered.
- Metastatic spinal cord compression is priority 2 (‘urgent palliative radiotherapy in patients with malignant spinal cord compression who have useful salvageable neurological function’).

- The risk benefit of palliative immunotherapy or chemotherapy in patients with metastatic or recurrent NMSC should be carefully considered and discussed with patients on an individual basis. In some patients it would be reasonable to wait for a few months before starting cemiplimab or avelumab. However, in some patients with aggressive disease it may be necessary to start despite the risks, as the authors appreciate that a substantial number of patients get long-term control of their advanced cSCC or MCC.
- The need for systemic steroids in single agent PD1/PDL1 inhibitors is relatively low. The main risk is posed by repeated visits to hospital and a theoretical risk of an increased cytokine response to COVID-19 (no data currently available).
- For patients already receiving palliative immunotherapy or chemotherapy, stopping treatment or increasing the gap between cycles should be considered, given the risk of the virus infection and immune status of the patients. NICE guidance has recently relaxed the 12-week break rule, allowing patients who have a break of more than 12 weeks to restart their treatment [5].
- In some patients, best supportive care may be the most appropriate treatment given the circumstances.

Conflicts of interest

The authors declare no conflict of interest.

Acknowledgement

This document is the collaborative work of the Royal College of Radiologists UK oncologists and their teams. No fund or grant was provided for this work.

References

- [1] Clinical Guide. Clinical guide for the management of non-coronavirus patients requiring acute treatment: cancer. Version 2, Available at: <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/specialty-guide-acute-treatment-cancer-23-march-2020.pdf> 23 March 2020; 23 March 2020.
- [2] COVID-19 rapid guideline: delivery of radiotherapy. Available at: <https://www.nice.org.uk/guidance/NG162>.
- [3] <https://www.nice.org.uk/guidance/ng162/chapter/7-Prioritising-radiotherapy-treatments>.
- [4] Zaorsky NG, Lee CT, Zhang E, Keith SW, Galloway TJ. Hypofractionated radiation therapy for basal and squamous cell skin cancer: a meta-analysis. *Radiother Oncol* 2017;125(1):13–20.
- [5] <https://www.nice.org.uk/guidance/ng161/chapter/7-Modifications-to-usual-service>.

Other resources

- [6] BAD, <http://www.bad.org.uk/healthcare-professionals/covid-19>.
- [7] BAOMS, https://www.baoms.org.uk/professionals/omfs_and_covid-19.aspx.
- [8] BAPRAS, <http://www.bapras.org.uk/media-government/news-and-views/view/covid-19-bapras-secretariat-update>.