

Lung Radiotherapy during Coronavirus (COVID-RT Lung)

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The global pandemic of SARS-CoV-2 presents a challenge to the delivery of radical radiotherapy to patients with lung cancer. Patients undergoing lung radiotherapy (RT) are in the group at highest risk of severe complications and death from COVID-19. Therefore there is a need to reduce the risks from treatment and hospital attendances during the pandemic.

To address this, a group of UK clinical oncologists published recommendations on reduced fractionation in lung cancer patients treated with curative-intent radiotherapy during the COVID-19 pandemic, based on current literature and practice ('UK reduced fractionation recommendations during the COVID-19 pandemic', Faivre-Finn et al, *Clinical Oncology*, doi:10.1016/j.clon.2020.05.001);. The objectives of this paper were two-fold, 1) to identify reduced-fractionation and curative-intent radiotherapy regimes in lung cancer, assess their evidence base, and provide organs-at-risk dose constraints and 2) to discuss limitations and practical considerations associated with their implementation. The anticipated impact of this work is firstly, to reduce hospital visits and limit exposure to COVID-19 in patients having curative-intent radiotherapy for lung cancer, and secondly, to increase radiotherapy service capacity for operable patients with stage I-III lung cancer, who may not be able to have surgery during the pandemic.

Following the publication of these recommendations, it is now important to assess their impact on practice and on the clinical outcome of lung cancer patients considered for radiotherapy in the UK during the pandemic. To this effect the Lung Radiotherapy during Coronavirus (COVID-RT Lung) national data collection was set up (under the auspices of the NCRI CTRad COVID-RT national data collection). Specifically, ours aims are to: i) understand the changes in radiotherapy services for patients with lung cancer in the UK during the coronavirus pandemic; ii) assess the outcome of operable patients treated with radiotherapy during the coronavirus pandemic; iii) assess the outcome of patients with stage I-III lung cancer treated as described in the paper; and iv) assess the outcome of patients with suspected/confirmed SARS-CoV-2 infections in whom radiotherapy was interrupted. We will include patients with stage I-III lung cancer who were referred for radical RT between 2nd April and 2nd October 2020.

All UK centres that deliver radiotherapy for patients with lung cancer are invited to participate in the project. Patients entered into the COVID-RT Lung database include, but are not limited to, those who experienced a change in management. The inclusion of patients whose treatment proceeded as normal despite the COVID-19 pandemic is important as it will provide a non-historic control. We are collecting details of patient's age, sex and comorbidities; changes in diagnostic procedures and treatment (including switch from surgery to radiotherapy or from radiotherapy to best supportive care); treatment planned and delivered (including radiotherapy and systemic therapy); diagnosis of COVID-19, acute and late grade 3 or more toxicity (up to 12 months), disease status and survival. Data is uploaded to a secure cloud-based database hosted by the University of Manchester, UK. No personal identifiable data is transferred from the local site, meaning that the central database can be regarded as anonymous. Health services have reacted rapidly to the threat of COVID-19 and the healthcare community now has a responsibility to evaluate the changes made in clinical care. Initiatives such as COVID-RT Lung and related projects are a vital part of the pandemic response.

For more information about COVID-RT Lung, please contact Prof Corinne Faivre-Finn and Dr Kathryn Banfill (co-clinical leads; Corinne.Finn@christie.nhs.uk and Kathryn.Banfill@christie.nhs.uk), Dr Gareth Price (clinical informatics lead; Gareth.Price@manchester.ac.uk), or Dr Kate Wicks (project co-ordinator; Kate.Wicks@manchester.ac.uk).