A snapshot of radiation therapy techniques and technology in Queensland: An aid to mapping undergraduate curriculum

Pete Bridge¹, Mary-Ann Carmichael¹, Carole Brady² & Allison Dry³

¹School of Clinical Sciences, Queensland University of Technology, Brisbane, Queensland, 4001, Australia
²Radiation Oncology Mater Centre, Raymond Terrace, South Brisbane, Queensland, 4101, Australia
³Cancer Care Services Royal Brisbane Women’s Hospital Herston, Brisbane, Queensland, 4029, Australia

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Abstract

Introduction: Undergraduate students studying the Bachelor of Radiation Therapy at Queensland University of Technology (QUT) attend clinical placements in a variety of department sites across Queensland. To ensure that the curriculum prepares students for the most common treatments and current techniques in use in these departments, a curriculum matching exercise was performed. Methods: A cross-sectional census was performed on a pre-determined “Snapshot” date in 2012. This was undertaken by the clinical education staff in each department who used a standardized proforma to count the number of patients as well as prescription, equipment, and technique data for a list of tumour site categories. This information was combined into aggregate anonymized data. Results: All 12 Queensland radiation therapy clinical sites participated in the Snapshot data collection exercise to produce a comprehensive overview of clinical practice on the chosen day. A total of 59 different tumour sites were treated on the chosen day and as expected the most common treatment sites were prostate and breast, comprising 46% of patients treated. Data analysis also indicated that intensity-modulated radiotherapy (IMRT) use is relatively high with 19.6% of patients receiving IMRT treatment on the chosen day. Both IMRT and image-guided radiotherapy (IGRT) indications matched recommendations from the evidence. Conclusion: The Snapshot method proved to be a feasible and efficient method of gathering useful data to inform curriculum matching. Frequency of IMRT use in Queensland matches or possibly exceeds that indicated in the literature. It is recommended that future repetition of the study be undertaken in order to monitor trends in referral patterns and new technology implementation.