

CoRIPS Award Presentation: Clinical Reasoning in Image Guided Radiotherapy: A Multimethod Study***Dr Mark Collins***

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The study aimed to investigate the types of decision-making processes used by therapeutic radiographers during image interpretation in Image Guided Radiotherapy.

A multimethod research design was adopted that utilised a think-aloud observational method with follow-up interviews. Thirteen participants were observed and interviewed across three United Kingdom (UK) radiotherapy centres.

Therapeutic radiographers were observed using one of three decision-making processes. These assume the titles simple linear process, linear repeating process and intuitive process. Participants were found to prioritise the target volume to be treated over the organs at risk. The findings of the study align with general principles of expert performance, which claims that expertise is only improved by seeking out particular kinds of experience and carrying out deliberate practice in this specific task or specific area of practice.

A descriptive module was developed to demonstrate the factors that impact on decision-making. The centre structure, training and the wider involvement of the multidisciplinary team were all found to be key factors that impacted on the decision-making process during Image Guided Radiotherapy

Issues in relation to pre-registration training were highlighted, with a consensus that recent graduates do not always demonstrate the skills and experience required to make clinical decisions. A conceptual model to improve clinical decision-making in image interpretation during IGRT was developed and is presented.