

Title: Competency and Professional Advancement in Computed Tomography (COMPACT)

Development and preliminary evaluation of technical competencies required by CT radiographers in a UK context

Martine Harris, Research Radiographer, Mid Yorkshire Hospitals NHS Trust

PhD Candidate, Faculty of Health Studies, University of Bradford

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Summary

Diagnostic imaging plays a pivotal role in the diagnosis (or exclusion), treatment and monitoring of disease across almost all care pathways. Therefore, in recent years, services have come under significant pressure to deliver increasing activity to meet escalating demand. A renewed focus on prevention and early diagnosis in priority areas such as stroke, dementia, trauma and cancer, including imminent implementation of Computed Tomography (CT) population screening, will see further demand placed on overstretched services. Computed Tomography, has and continues, to experience dynamic service changes due to technological advancements and increased global accessibility. Consequently, a greater number of CT competent radiographers will be needed to meet increased modality demand.

For radiographers, the capacity to provide high-quality healthcare, ensure patient safety, utilise evidence-based practice and improve patient outcomes is dependent on a foundation of professional and technical proficiency. A competent practitioner workforce is a fundamental expectation of service users and improvements in CT competencies have been highlighted in the literature as an area of development. However, the definitions and domains of competence in CT have not been investigated, particularly in terms of the newly-qualified to expert practice continuum.

This project aims to address this gap and deliver a contemporary evidence-based competency framework for CT radiographers. Through a multi-method approach, split across four work packages, it will define CT competencies for recognised radiography practice levels, taking into consideration the evolving practice environment and present them in a robust and coherent framework suitable for professional adoption across the UK.

Potential impact of the project

Competence is considered to be a substantial part of mitigating risks and upholding patient safety and is therefore essential at all levels of radiographic practice. This study challenges the emerging need to grow CT expertise, clarify career paths and define future education and training goals. The development of a contemporary CT competency framework will allow comprehensive and validated articulation of the CT radiographer role at threshold practice through to advanced and consultant level providing a mechanism for professional development, workforce planning and enhancing patient outcomes. The work supports professional and political strategies and has implications for education and further research.