

Substitution, delegation or addition? A discussion of workforce skill mix in computed tomography

Martine Ann Harris ^{1,3} MSc, Research Radiographer and Senior CT Radiographer

Bev Snaith ^{1,2} PhD, Clinical Professor of Radiography

¹Mid Yorkshire Hospitals NHS Trust, Pinderfields Hospital, Aberford Road, Wakefield, WF1 4DG, UK.

Email: beverly.snaith@nhs.net

²Faculty of Health Studies, University of Bradford, Bradford, BD7 1DP, UK.

³Corresponding author. Email: martine.harris@nhs.net

Abstract. A letter to the Editor in response to the recently published article by Cartwright *et al.* (AHR, <https://doi.org/10.1071/AH20118>) on the implication of workforce models on efficiency and staff well-being in a computed tomography department.

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Dear Editor, we read with interest the article by Cartwright *et al.*¹ on role substitution in a computed tomography (CT) department and their study exploring the impact of four workforce models on CT workflow and efficiency. It is interesting to see that the drivers for implementation of skill mix and role redesign in Australia (i.e. staff shortages, skill gaps and service pressures), appear to be the same as those in the UK. Indeed, the expansion of support and assistant roles in the allied health professions (AHPs) is a key government workforce strategy.² Within radiography, the skill mix initiative was introduced almost two decades ago and assistant practice is well established, particularly in mammography and radiography; however, CT is an area of poor skill mix utilisation.³

The authors described workforce combinations for CT service provision that included a radiographer plus administrative assistant (AA) or medical imaging assistants (MIA) in comparison to a gold standard of two trained radiographers. What was not clear from the paper is the scope of practice and competencies of the MIA. The authors state that assistants can replace AHPs by performing basic clinical tasks; however, the duties described in the study focus solely on administrative responsibilities. We would be curious to know if the competencies of AAs and MIAs overlap with the clinical scope of the radiographer in Australia, within CT or other imaging modalities, or if these administration duties are specific to the study centre?

Ultimately, the term ‘assistant’ has different interpretations worldwide. In the UK, non-qualified staff in CT fall into two main brackets: support workers who undertake clinical tasks such as cannulation, risk screening and patient preparation as well as resource monitoring, and assistant practitioners that can undertake the delegated role of CT acquisition within limited scope. It appears that the utilisation of the MIA in this study incorporates some of the support worker responsibilities. However, the 2015 competency framework for medical imaging support in Australia⁴ appears to go well beyond those of the assistant model in this study.

Whether the COVID-19 pandemic has accelerated the acceptance of skill mix changes is unclear, but assistants are clearly recognised as a key workforce component in Australia.⁵ We were pleased to see the publication of a prospective empirical study that quantifies the service impact of CT skill mix implementation, and discusses this with reference to patient safety, workforce, and career pathways. It would be interesting to speculate whether the outcomes would have been any different with a model that included more clinically focused duties and possibly even delegated limited scope CT examinations to the MIA. We thank the authors for their contribution to this evolving issue and welcome wide debate and future research.

Competing interests

The authors declare no competing interests.

References

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