

# CFAHR Evidence Brief

Utilising Dosimetric Information to Enhance the Clinical Management of Dysphagia in Patients Undergoing (Chemo)Radiotherapy for Head and Neck Cancer [PhD Thesis]

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## Alignment with [Metro South Health Research Strategy 2019 - 2024](#)

- Build research capability
- Increase research capacity
- Embed research in clinical services
- Translate research to better health
- Research excellence

## Alignment with [Allied Health Research Capability & Development Strategy 2017 - 2020](#)

- Engage staff as research consumers
- Enable staff as research generators
- Build research-enabling infrastructure and strategic processes
- Strengthen leadership in research and innovation
- Enhance internal research collaboration and synergy
- Strengthen partnerships with consumers and external stakeholders

## Alignment with [Allied Health Research Capability & Development Strategy 2017 - 2020](#)

- Standard 1 – Clinical Governance
- Standard 2 – Partnering with consumers
- Standard 3 – Preventing and controlling healthcare-associated infection
- Standard 4 – Medication safety
- Standard 5 – Comprehensive care
- Standard 6 – Communicating for safety
- Standard 7 – Blood management
- Standard 8 – Recognising and responding to acute deterioration

## Practice Issue

Dysphagia is a common and debilitating side effect experienced by patients undergoing chemo)radiotherapy ([C]RT) treatment for a head and neck cancer (HNC). Advancements in technology have generated new radiotherapy techniques e.g. intensity modulated radiotherapy (IMRT) which offer opportunity to limit radiotherapy dose to key swallowing structures, reduce the likelihood and severity of dysphagia and result in overall less radiotherapy related toxicity. Preliminary research has demonstrated the potential for these new techniques to result in decreased dysphagia severity however methodological limitations of the current evidence base, limited understanding of the feasibility of employing these new methods and limited awareness of how these new methods may enhance clinical practice are preventing translation of these novel methods into practice. Hence there is a need to (a) examine how radiotherapy doses delivered with these new methods to key swallowing structures influences the likelihood of dysphagia for HNC patients undergoing [C]RT; (b) explore the current practices and roles of key professional groups involved in managing HNC patients undergoing [C]RT in order to understand how they may facilitate translation of new evidence into practice and (c) identify the barriers and facilitators which are influencing the translation and use of these new techniques within clinical cancer services.

## Evidence

Study results demonstrated that when radiotherapy doses to key swallowing structures are reduced, dysphagia severity is lessened. The awareness of and use of these new radiotherapy techniques by professional groups within cancer centres varied widely. A series of clinician, clinical service and patient related factors are current influencing/discouraging use of novel research and new techniques.

## Practice Change

This thesis highlighted that clinician knowledge and practice surrounding these new radiotherapy techniques varies and that a number of clinician, service and patient factors existing within Australian cancer centres are limiting the translation and uptake of these novel practices.

## Publication/s

1. Hutchison, A.R., Cartmill, B.C., Wall, L.R., & Ward, E.C. (2019). Dysphagia optimised radiotherapy to reduced swallowing dysfunction severity in patients undergoing treatment for head and neck cancer: A systematised scoping review. *Head & Neck*, 41(6), 2024-2033. <https://doi.org/10.1002/hed.25688>
2. Hutchison, A.R., Cartmill, B.C., Wall, L.R., Ward, E.C., Hargrave, C., & Brown, E. (2019). Practices, knowledge and inter-professional relationships between speech pathologists and radiation therapists managing patients with head and neck cancer. *Journal of Medical Radiation Sciences*, 66(2), 103-111. <https://doi.org/10.1002/jmrs.332>
3. Hutchison, A.R., Nund, R.L., Brown, B., Ward, E.C. & Wishart, L.R. (Under review). "Understanding it...it's complicated": Speech language pathologists' knowledge and experiences of using dosimetric information to guide dysphagia management in patients with head and neck cancer. *Under review with the journal 'International Journal of Speech Language Pathology'*.

Adapted from Tilley Pain (Townsville HHS)

Based on the Australian Healthcare and Hospitals Association's Health Policy Evidence Brief

Metro South Health Research Strategy 2019 – 2024 [https://qheps.health.qld.gov.au/\\_data/assets/pdf\\_file/0012/2325000/research-strategy.pdf](https://qheps.health.qld.gov.au/_data/assets/pdf_file/0012/2325000/research-strategy.pdf)

Allied Health Research Capability & Development Strategy 2017 – 2020 <https://metrosouth.health.qld.gov.au/sites/default/files/allied-health-research-strategy.pdf>

National Safety and Quality Health Service Standards <https://www.safetyandquality.gov.au/sites/default/files/migrated/Overview-of-the-NSQHS-Standards-second-edition.pdf>