

CFAHR Evidence Brief

A randomised trial of a telepractice app “SwallowIT” for the delivery of prophylactic swallowing therapy to patients with head/neck cancer during (chemo)radiotherapy

Authors and Affiliations

Laurelie Wishart^{1,2}, **Elizabeth Ward**^{1,2}, **Bena Brown**^{1,2,3}, Annie Hill¹, Elizabeth Isenring⁴, Joshua Byrnes⁵, Sandro Porceddu^{6,7}

¹ Centre for Functioning & Health Research, Metro South Health

² School of Health & Rehabilitation Sciences, The University of Queensland

³ Speech Pathology Department, Princess Alexandra Hospital

⁴ Faculty of Health Sciences & Medicine, Bond University

⁵ Centre for Applied Economics, Griffith University

⁶ Radiation Oncology Department, Princess Alexandra Hospital

⁷ School of Medicine, The University of Queensland

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- 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

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Practice Issue

Dysphagia is a common and debilitating side-effect for patients with oropharyngeal head and neck cancer (HNC) undergoing (chemo)radiotherapy ((C)RT) treatment. The traditional approach to managing dysphagia in the HNC population has been reactive – i.e. delivering therapy after (C)RT has caused insult to the swallowing mechanism. However, emerging research suggests that the severity and extent of dysphagia can be improved by completing intensive, prophylactic swallowing intervention, prior to and/or during (C)RT treatment. Unfortunately, the intensive (daily) face-to-face nature of these exercise protocols place increased demands on clinical resources and can add to patient burden.

Telepractice offers a potential solution to provide a more time- and resource-efficient method of service-delivery. Asynchronous telepractice (store-and-forward systems) provide an ideal platform for patients to practice their swallowing therapy remotely, within a structured/supported home-practice model. This body of research sought to explore the feasibility and efficacy of a new asynchronous telepractice app “SwallowIT” for the delivery of intensive, prophylactic swallowing therapy for patients receiving (C)RT for HNC.

Evidence

A 3-arm randomised parallel group trial was conducted with 79 patients with oropharyngeal HNC comparing the delivery of prophylactic swallowing therapy via three service delivery models: 1) an established model of clinician-directed face-to-face therapy [gold standard]; 2) the SwallowIT-assisted model; and 3) a patient-directed model of independent home practice with minimal support [current standard care]. Analyses demonstrated that the SwallowIT model yielded:

- comparable therapy adherence to face-to-face therapy and superior therapy adherence to patient-directed therapy
- non-inferior swallowing, nutritional and overall functional outcomes for patients
- comparable patient satisfaction to face-to-face therapy, and superior satisfaction to patient-directed therapy
- provided significant cost-savings to both the health service and to patients (compared to the face-to-face model), and was more cost-effective than patient-directed therapy

Practice Change

This body of research provides new evidence to support the use of asynchronous telepractice models (like the SwallowIT app) to assist patients with oropharyngeal HNC to complete intensive swallowing therapy in a supported home practice setting. Such models have the potential to provide intensive therapy in an efficacious and cost-feasible manner, and may help to minimise additional patient burden during (C)RT. Work is currently underway to explore ways to expand these models to other types of swallowing therapy, and to implement this as a new standard of care in Metro South.

Publication/s

1. Wall, L. R., Ward, E. C., Cartmill, B., Hill, A. J., Isenring, E., Byrnes, J., & Porceddu, S. V. (2020). Prophylactic swallowing therapy for patients with head and neck cancer: A three-arm randomized parallel-group trial. *Head & Neck*, 42(5):873-885.
2. Wall, L. R. et al. (2019). Economic analysis of a three-arm RCT exploring the delivery of intensive, prophylactic swallowing therapy to patients with head and neck cancer during (chemo) radiotherapy. *Dysphagia*, 34(5), 627-639.
3. Wall, L. R., Ward, E. C., Cartmill, B., Hill, A. J., & Porceddu, S. V. (2017). Adherence to a prophylactic swallowing therapy program during (chemo) radiotherapy: impact of service-delivery model and patient factors. *Dysphagia*, 32(2), 279-292.
4. Wall, L. R., Ward, E. C., Cartmill, B., Hill, A. J., & Porceddu, S. V. (2017). Examining user perceptions of SwallowIT: a pilot study of a new telepractice application for delivering intensive swallowing therapy to head and neck cancer patients. *Journal of telemedicine and telecare*, 23(1), 53-59.

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://gheps.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>