

CFAHR Evidence Brief

Mask anxiety in patients with head and neck cancer requiring immobilisation for radiotherapy treatment

Authors and Affiliations

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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

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Practice Issue

To ensure precise delivery of radiotherapy to sites of disease in the head and neck, alongside avoidance of surrounding healthy structures, patients with head and neck cancer are immobilised during their treatment with a thermoplastic mask. Patients may experience anxiety and distress, which can impact on the accuracy, precision, and delivery of radiotherapy for head and neck cancer. There is little data about the prevalence of anxiety and distress associated with wearing a thermoplastic mask nor about the experience of the people who identify as being mask anxious during radiotherapy.

A quote from a patient with head and neck cancer and consumer on this project:

“What it involves is that you lie down on a flat hard bed, and you’re clicked down firmly by the head. Its purpose is to hold you utterly rigid, so the radiation beam can go through and hit the cancer without hitting the spinal cord or your brain. It’s a perfectly appropriate thing, but it’s really hard to handle. It was definitely the hardest experience of my life. I immediately panicked. I felt my heart rate go force ten. I went red in the face and sweat started pouring off me. I’ve literally met scores of people who’ve used the mask, and it’s important to say, not everybody finds it as hard as I did, but a significant minority do. That’s why we need research to find an alternative”

Evidence

A mixed method, convergent design was used to examine the prevalence and experience of mask anxiety using two clinical cohorts using a patient-reported modified Distress Thermometer and qualitative interviews. A subsequent study prospectively explored mask anxiety during radiotherapy using the modified Distress Thermometer and a purpose-built survey on the experience of mask anxiety management.

This study found one quarter of patients experience mask anxiety during radiotherapy for head and neck cancer, with females significantly more likely to experience it. Mask anxiety significantly reduced during the course of radiotherapy treatment, however for 28% of participants mask anxiety remains constant or increases with severity during treatment. Participants reported relying on intervention from health professionals, self-taught strategies, music, visualisation and medication to manage their mask anxiety. Through interviews, major themes emerged relating to the contributors to mask anxiety (vulnerability, response to experience and expectations); and how the person was going to manage the mask anxiety during treatment (strategies and mindset).

Practice Change

Implementation of routine screening to ensure early identification, and patient education to assist preparation for wearing the mask during RT has been conducted at the study centre. Strategies that could improve current management of mask anxiety have been identified. Multiple, diverse strategies are being used by patients to self-manage their own mask anxiety. Novel studies are underway collaborating between allied health disciplines (occupational therapy and radiation therapy) and nursing to provide routine education in the cohort who identify as mask anxious, and to develop effective interventions for managing mask anxiety.

Publication/s

Nixon, J. L., Cartmill, B., Turner, J., Pigott, A. E., Brown, E., Wall, L. R., Ward, E. C., & Porceddu, S. V. (2018). Exploring the prevalence and experience of mask anxiety for the person with head and neck cancer undergoing radiotherapy. *Journal of medical radiation sciences*, 65(4), 282-290.

Nixon, J. L., Brown, B., Turner, J., Pigott, A. E., Brown, E., Wall, L. R., Ward, E.C., & Porceddu, S. V. (2019). A prospective examination of mask anxiety during radiotherapy for head and neck cancer and patient perceptions of management strategies. *Journal of medical radiation sciences*, available on-line.

<https://metrosouth.health.qld.gov.au/sites/default/files/radiation-therapy-guide-raymond-tce.pdf>

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>