

EXEMPLAR OF EVIDENCE-BASED CARE IN PRACTICE

Implementing an evidence-based model of pre-operative nutrition care in patients undergoing oral cavity reconstruction surgery for head and neck cancer: a feasibility study

WHAT did the initiative involve?

The study employed an implementation science approach to improve adherence to nutrition evidence-based guideline (EBG) recommendations for patients with head and neck cancer (HNC).

This mixed-methods study involved a retrospective audit to examine:

- Nutrition care processes (referrals, malnutrition screening, and nutrition assessment using validated tools) which were benchmarked against Clinical Oncology Society of Australia (COSA) EBG recommendations (Findlay et al., 2011).
- Secondary analysis explored associations with clinical outcomes (complications, length of stay (LOS), and readmissions).

This was followed by multidisciplinary team (MDT) engagement to develop a nutrition evidence-based care pathway (EBCP), comprising:

- MDT survey guided by the Capability, Opportunity, Motivation – Behaviour (COM-B) framework.
- MDT focus group guided by the Action, Actor, Context, Target, Time (AACTT) implementation framework.

This informed prospective, pilot implementation of a pre-operative, supportive care-led pre-admission clinic. A repeat audit and survey were conducted to compare study outcomes, clinician perceptions of the service, and barriers to screening and assessment pre- and post-implementation.

WHO was involved in the initiative?

Administrative support staff, clinical nurse specialists, dietitians, IT specialists, patient navigators, research administrators, speech pathologists, and surgeons.

WHERE did the initiative occur?

A single comprehensive cancer centre in Sydney, Australia.

WHO was the target of the initiative?

Adult patients (≥18 years) undergoing oral cavity, free-flap reconstruction surgery for HNC.

WHEN was the initiative undertaken?

February 2024 to February 2025.

HOW was the initiative undertaken?

This multi-phase study was supported by an internal research grant and conducted over 12 months; Phase 1: Retrospective audit (months 1-4); Phase 2: Development of the nutrition EBCP (months 5-6); Phase 3: Pilot implementation of the nutrition EBCP (months 6-10); Phase 4: Post-implementation analysis (months 11-12).

OUTCOMES

Implementation of the nutrition EBCP improved adherence to EBG-recommended pre-operative nutrition care. Nutrition care processes all improved following EBCP implementation. Referral to dietitians improved from 60% to 95% ($p < 0.001$) and nutrition assessment using a validated tool from 13% to 80% ($p < 0.001$). Rates of malnutrition screening with a validated tool improved from 91 to 98% ($p = 0.14$), noting a reduction in false negative screening from 22% to 10% ($p = 0.13$). The timeliness of referrals, screening and assessment also improved, facilitating earlier access to care. MDT survey responses demonstrated improved perception of the service and fewer barriers to screening and assessment following EBCP implementation. These findings demonstrate that a co-designed, implementation-informed care pathway can improve adherence to evidence-based nutrition care in patients undergoing complex HNC surgery.

REFERENCE

McAuliffe, S et al. (2026) Implementing an evidence-based model of pre-operative nutrition care in patients undergoing oral cavity reconstruction surgery for head and neck cancer: a feasibility study. *Supportive Care in Cancer*, 34(2), 91. <https://doi.org/10.1007/s00520-026-10312-x>