MACH
Melbourne Academic
Centre for Health

MacHSR Future Leaders Fellowship program
Final reporting (Cohort 3)

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Project title: Prioritising patient communication to support equitable access to healthcare

Original problem and approach: Patients with an artificial airway cannot communicate verbally, leaving them vulnerable and disadvantaged as passive recipients of their care. These patients are over-represented at Austin Health, due to the large Intensive Care Unit (ICU) where most patients have an artificial airway, and the presence of two statewide services (Victorian Respiratory Support Service and Victorian Spinal Cord Injury Service) that care for people with neuro-muscular failure. These patients frequently require assistance to breathe for prolonged periods through artificial airways, depriving them of the same ability to communicate as other patient groups. This problem impacts the patient, their families, the healthcare professionals and the wider hospital system. The National Safety and Quality Health Service Standards comprise of two standards which are associated with patient communication capability; the *Partnering with Consumers* standard and the *Comprehensive Car*e standard[1]. For people with artificial airways at Austin Health, these standards are currently not being met. Communication is a basic human right and to be understood by others is a fundamental need[2]. To meet the required standards, communication needs to be facilitated to enable patients to be "partners in their own care, to the extent that they choose"[1]. To provide *Comprehensive Care*, the "care is aligned with the patient's expressed goals of care and healthcare needs, considers the effect of the patient's health issues on their life and wellbeing, and is clinically appropriate"[1]. Patients who are unable to express their basic needs, wants, feelings and goals of care are being denied equitable access to healthcare. Patients' families provide extraordinary emotional support and advocacy for their loved ones during the hospital admission. Patients and their families should be elevated to become members of the multidisciplinary team to guide goals of care, preferences, supported trajectory of recovery and timely flow through the admission to discharge and into the community. Patient communication status and management should be discussed on daily ward rounds, akin to pain management, fluid status and mobility. Communication capability and opportunity must be prioritised across the health system, with a strong focus in the ICU due to the critical medical status and vulnerability patients experience in the highly dynamic environment. At Austin Health, this need also extends into the inpatient ward setting, as all inpatient wards accept patients with an artificial airway and patients can receive invasive ventilation therapy on the respiratory and spinal wards. In my PhD research, I identified a range of safe and feasible communication interventions that can effectively facilitate communication in patients with an artificial airway[3]. I have developed a novel outcome measurement tool to evaluate communication effectiveness and patient satisfaction with their communication. I am leading a multicentre validation of this tool following the promising results in a single site-pilot feasibility study[4]. My research has found early communication in the ICU may be associated with a reduction in the length of time that the patient needs a breathing tube[5]. However, the uptake of communication interventions is very low. Only 8% of ICU patients on a ventilator utilised verbal communication interventions during their ICU admission[6]. To address this problem, an "on-demand" e-learning education module entitled *"Supporting patients with an artificial airway to* communicate" was designed for the multidisciplinary team, however engagement has been low, with only 22 staff accessing the education. Further, the suite of equipment provided to the ICU to support communication alongside the education, is in a state of disrepair. A recent audit revealed that 54% of communication equipment provided to the individual patient bays is missing and just 66% partially intact or usable. What is abundantly clear is that provision of education and equipment is insufficient to support the uptake of communication supports. As such, a health service methodological approach is urgently needed to address this problem. A better understanding of the barriers to using communication interventions with patients with artificial airways would help guide targeted strategies that improve the uptake of these communication interventions.

The objectives of the proposed health services research project are:

1. To quantify the extent of the unmet need for this vulnerable population. Specifically, the proportion of patients with an artificial airway who could communicate but are not

2. To explore the barriers and enablers to implementing a targeted communication strategy in the hospital setting
3. To design and implement a targeted communication strategy in the hospital setting

Refinements to the project
Focus on objectives 1 and 2 in the project plan due to time constraints.

Activities

1. An open observational behavioural mapping design study was undertaken to examine the nature of communication activity of critically ill patients with an artificial airway in the ICU. Prospective observation of all patients who were admitted to the ICU and had an artificial airway will be undertaken, excluding those who are receiving end-of-life care. Observations were conducted on five non-consecutive days from 8am to 4.30pm. Patients were observed every 5 minutes except for 4 randomly scheduled 15- minute breaks. At each time point, the observer recorded patient communication activity and the person/people attending to and/or interacting with the patient. Observations were not made if the patient left the ICU (e.g., for a scan or procedure) or if the curtains are closed. The route through the ICU remained consistent across days (e.g., across ICU pods). To mimimise the effects of observing practice on standard care, staff were told that the study aims to provide information about the structure and current care processes in intensive care.
2.

   Activity status: Data analysis is currently in progress.

3. A qualitative methodology informed by framework analysis and implementation theory was applied to gather multi-disciplinary perspectives on the barriers and enablers to patient communication for those with an artificial airway in the Intensive Care Unit. Four focus groups were conducted with speech pathologists (n=6) and nurses (n=5), and five semi-structured interviews with intensive care specialists (n=5) were conducted. Thematic framework analysis was undertaken using inductive and deductive coding to the Theoretical Domains Framework (TDF) and the COM-B framework for behaviour change. Double coding by two qualitative researchers was performed with 33% of the data to ensure analytical validity. Barriers and enablers to patient communication in the ICU with an artificial airway were identified. Nine themes relating to thirty-one belief statements were generated and mapped to nine domains of the TDF and five domains of the COM-B. This research highlights the complexity of the implementation of multidisciplinary communication intervention, whilst identifying opportunities to develop feasible and acceptable approaches.

   Activity status: Manuscript preparation in progress.

Achievements and impacts

1. Invitation to meet the Austin Health CEO to discuss this research program following the MACH Council meeting November 2025. CEO requested feedback on MACH program to guide support for future fellows.
2. Austin Health CEO referred the MACH Fellow to speak with the Austin Health Director of Corporate Communications
3. Accepted expression of interest to deliver an oral presentation at the Australia and New Zealand Intensive Care Society's 28th Annual Clinical Trials Group meeting, March 2026, entitled "Exploring the barriers and enablers to patient communication with an artificial airway in the Intensive Care Unit" which was well-attended and well-received.
4. Accepted abstract submission for oral presentation at the Speech Pathology Australia National Conference, June 2026, entitled "Exploring the barriers and enablers to patient communication with an artificial airway in the Intensive Care Unit"

5. Submitted abstract for oral presentations at the New Zealand Intensive Care Society's Annual Scientific Meeting, September 2026 and the 10th International Tracheostomy Symposium, October 2026 and the Australia entitled "Exploring the barriers and enablers to patient communication with an artificial airway in the Intensive Care Unit" and "Mapping patient-staff communication patterns and interactions with an artificial airway in the Intensive Care Unit"

Barriers or delays you faced
Unplanned carers' leave and bereavement leave.

Plans for continued activity/translation/implementation

- Finalise the analysis and submission of manuscripts for peer-reviewed publication
- Prepare for conference presentations to disseminate the findings
- Prepare grant funding applications to enable furthering this research program including the generation of a suite of strategies to target the barriers to evidence-based communication with patients with an artificial airway. These strategies could be implemented across the health system and in other MACH affiliated hospitals following the fellowship. Following validation, the novel outcome measurement tool will be incorporated into the care bundle to measure communication effectiveness, to guide the selection and comparison of communication treatments and measure the impact of early communication on health outcomes.

Resulting collaboration – Hospital CEO engagement in the research program.
Government or industry engagement - N/A

References:

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