

## Current Insights

## Communication with the critically ill patient: A nexus between patient needs, communication partner skills and the ICU environment



Amy Freeman-Sanderson<sup>a,b,c,d,1,\*</sup> , Laura Istanboulian<sup>e,f,2</sup>, Louise Rose<sup>g,3</sup>

<sup>a</sup> Graduate School of Health University of Technology Sydney NSW Australia

<sup>b</sup> Royal Prince Alfred Hospital Sydney NSW Australia

<sup>c</sup> Critical Care Division, The George Institute for Global Health, Faculty of Medicine, UNSW Sydney Sydney Australia

<sup>d</sup> Australian and New Zealand Intensive Care Research Centre (ANZIC-RC), School of Public Health and Preventive Medicine, Monash University Melbourne Australia

<sup>e</sup> Daphne Cockwell School of Nursing Toronto Metropolitan University Toronto Canada

<sup>f</sup> Michael Garron Hospital Toronto East Health Network Toronto Canada

<sup>g</sup> Florence Nightingale Faculty of Nursing, Midwifery and Palliative Care, King's College London London UK

Communication is the cornerstone of human interaction and connection. Individuals communicate verbally and non-verbally using spoken word, writing, symbols, gestures, and expressions. Enabling patients to communicate during their intensive care unit (ICU) admission is paramount to providing safe and patient-centered quality care [1].

Effective communication for critically ill adults with an artificial airway is defined as ‘the degree to which a patient can initiate, impart, receive, and understand information’ [2]. Communication comprises basic to complex exchanges of information, symptoms, emotions, and decisions between patients and their communication partner(s). Several elements underpin effective communication including communication quantity, rate, effort, duration, independence, and satisfaction with communication exchanges.

### Why is communication impacted in critical illness?

Communication impairment is multifaceted and often due to physical, cognitive and iatrogenic factors, most commonly artificial airway insertion. An endotracheal tube or inflated tracheostomy cuff precludes airflow to enable vocal fold adduction to produce voice. Regardless of the need for invasive ventilation, all patients admitted to the ICU are susceptible to new communication impairment as communication is more complex than the production of voice alone [3]. Level of alertness, cognitive changes, delirium, and new or exacerbated sensory limitations (i.e., hearing, vision impairment) impact memory, attention and

situational awareness, all required for effective communication [4]. When combined with cultural and language diversity, cognitive changes further exacerbate communication inability [5].

Other communication impairments can include changes to language (e.g., formulating sentence structure and content) and speech functions. Speech requires rapid and precise coordination of (1) cortical language centres, (2) larynx and respiratory muscle movement to produce sound, and (3) oral musculature movement to shape sound into words. Acquired ICU weakness impacts the range, strength and speed of movement across all muscle groups including those needed for speech. It also impacts non-verbal communication including facial and head movements (for nodding), hand gestures and gross/fine motor control required for writing or typing.

As a result of physical, cognitive, cultural and language barriers, communication breakdown is highly prevalent in and after an ICU admission resulting in frustration, anxiety, and feelings of dissatisfaction among all communication partners. Patients can experience protracted periods of dysphonia (disordered voice quality) following artificial airway removal due to persistent vocal cord trauma and physical weakness [6]. This loss of communication function is described as a ‘critical illness communication disability’ as it directly impacts a patient’s ability to engage in activities to meet their healthcare and psychosocial needs [7].

\* Corresponding author.

E-mail address: [Amy.freeman-sanderson@uts.edu.au](mailto:Amy.freeman-sanderson@uts.edu.au) (A. Freeman-Sanderson).

<sup>1</sup> ORCID: 0000-0003-2161-6421

<sup>2</sup> ORCID: 0000-0002-8831-587X

<sup>3</sup> ORCID: 0000-0003-1700-3972

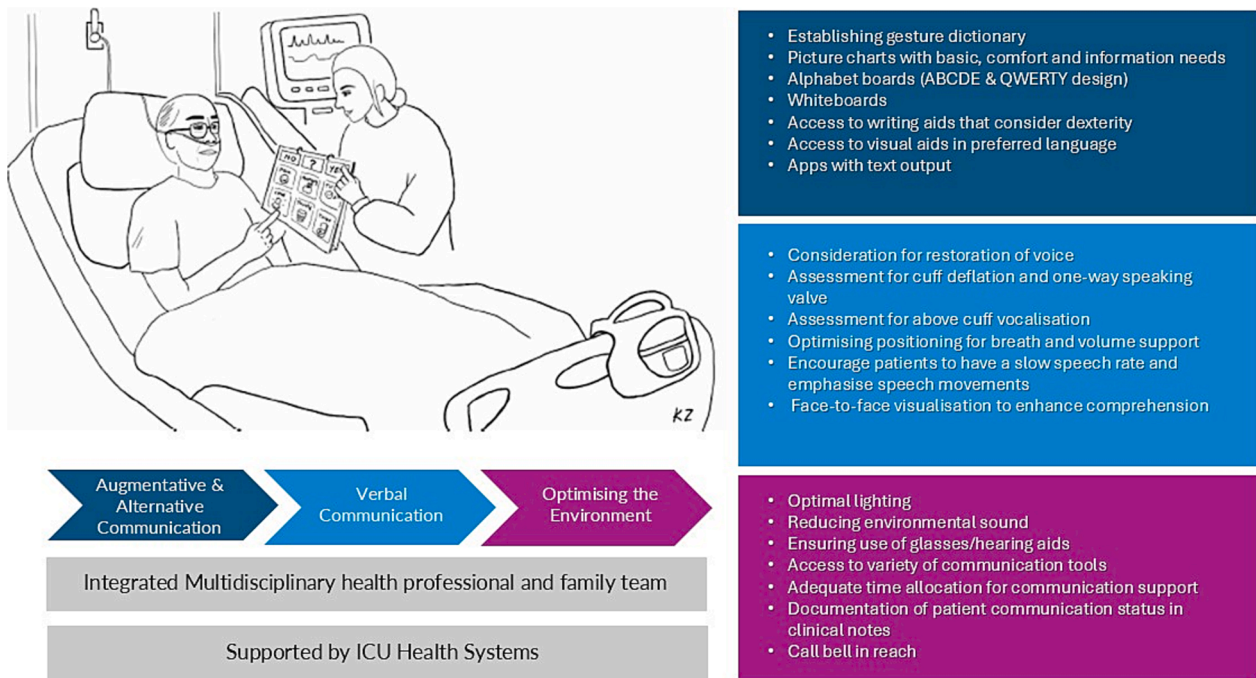


Fig. 1. Strategies for enabling and supporting communication in the ICU.

### The role of critical care nursing in optimising communication for ICU patients

Nurses are among the most essential communication partners for ICU patients, providing 24-hour direct care. Various tools, skills, and organisational supports are required to empower nurses to meet individual patient communication needs. However, optimising patient communication is challenging and can be time-consuming thus contributing to nurses' work and cognitive load [8]. Furthermore, nurses have multiple responsibilities within a shift and may lack opportunities to consistently prioritise patient communication. Practical steps to optimise communication are summarised below:

#### Augmentative and alternative communication systems

When a person is unable to speak, Augmentative and Alternative Communication systems (AAC) can be used. These include non-aided communication methods such as gestures and facial expressions. Aided AAC includes external aid/s, either low-tech (picture charts, whiteboards, alphabet boards) or high-tech (computer systems or apps). AAC systems can enhance ICU patient communication however communication content is limited generally to current care needs. Thus, AAC often fails to support more individualised conversation [9].

Regular communication assessments are essential to determine appropriate AAC use accommodating individual needs [7]. Successful AAC use is enhanced with a coordinated multiprofessional team approach including nurses, allied health, doctors, patients, and their family or informal caregivers [10].

#### Verbal communication

Speech is the patient preferred mode of communication as it enables rapid communication without the need for new learning. Speech enables patients to communicate via phone/video call to connect with family/friends beyond the ICU bed space. Return of voice is linked with a sense of recovery, increased autonomy in decision making, and improved emotional state [11]. Tracheostomy patients should be evaluated for consideration of cuff deflation and one-way speaking valve use, which

can be enabled both on and off mechanical ventilation. Where cuff deflation is not feasible, above cuff vocalisation can be considered to enable voice [12]. To optimise speech intelligibility, patients should be positioned upright to improve breath support for voice volume and encouraged to emphasise sounds/key words. Communication partners should clarify conversation topics and clarify responses using closed (yes/no) questions or a binary choice (e.g., is the pain in your neck or your back?).

#### Optimising the ICU environment

Optimising effective communication is influenced by the external environment, communication partner skills, and organisation workplace practices [13]. Environmental optimisation includes direct face-to-face visualisation, adequate lighting and minimal environmental sound. Provision of training and multiprofessional support for communication partners to proactively support communication leads to increased comprehension, improved information exchange, content, and conversation duration. Workplace organisational support and infrastructure aids AAC implementation through availability and placement of appropriate communication tools in proximity to patient rooms, documentation of patient communication status in the medical record, and appropriate access to speech-language therapy expertise.

#### Current evidence gaps and future research needs

Effective communication is an important functional goal for all critically ill patients. Personalised interventions are required to meet individual needs, skills, and abilities across the critical care continuum [14]. In determining and evaluating the best intervention, it is paramount to measure effectiveness using outcomes important to patients, family members and clinicians with valid and reliable assessment tools [15]. The wider organisational system needs to support and prioritise patient communication through adequate funding, training and resource allocation to empower clinicians to address and decrease communication disability in critical illness. ICU nurses are uniquely positioned to identify, document, and advocate for proactive multi-professional response to communication inability during critical illness

as well as optimising communication ability in the patients they manage. Enabling effective patient communication in the ICU is complex, however, it has important patient safety and outcome implications, that warrant its prioritisation from both a clinical practice and research perspective.

### CRedit authorship contribution statement

**Amy Freeman-Sanderson:** Conceptualization, Writing – original draft, Writing – review & editing. **Laura Istanbulian:** Conceptualization, Writing – review & editing. **Louise Rose:** Conceptualization, Writing – review & editing.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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