THE IPAD® AND TALKROCKET GO™ APPLICATION AS A COMMUNICATION STRATEGY FOR PATIENTS WITH ENDOTRACHEAL OR TRACHEOSTOMY TUBES IN THE MEDICAL SURGICAL INTENSIVE CARE UNIT: A PILOT, FEASIBILITY STUDY

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Introduction: Critically ill patients commonly require mechanical ventilation through an artificial airway such as an endotracheal or tracheal tube. Although some patients with artificial airways are still able to communicate through mouthing words, gesturing, or writing, many are unable to do so effectively as a result of weakness, fatigue, or attachment to devices that restrict movement. Difficulties in communication can result in unmet needs and communication breakdowns, which are frustrating for patients, families, and clinicians.

Objectives: The objective of this pilot study was to explore the feasibility and usefulness, from the perspective of bedside clinicians in the intensive care unit (ICU), of using an iPad® equipped with TalkRocket Go™, a communication aid for patients who are unable to communicate using verbal speech.

Methods: Pilot, observational, single-centre study in a 24-bed Medical-Surgical Intensive Care Unit (MSICU). The study was approved by the local Research Ethics Board. Awake, alert, English-speaking and medically stable patients with endotracheal or tracheal tubes were identified by ICU clinicians and referred to the speech language pathologist (SLP) to assess for study eligibility. Structured cognitive testing was conducted by the SLP to determine eligibility. Patients who passed the cognitive screen were asked to consent to use of the iPad®. Clinicians caring for enrolled patients received structured training on the use of the iPad® from the SLP. Following training, the clinician was given the iPad® to use with the patient for a maximum of 60 minutes. At the end of the trial period, clinicians were asked to complete a self-administered, structured questionnaire with items relating to device training, performance, and utility to facilitate communication, and overall satisfaction with the device. Demographic and clinical data on the patient was abstracted from the medical chart.

Results: Forty patients were referred for SLP and 24 patients (60%) were deemed eligible and passed the cognitive screen. Twenty patients were enrolled in the study and used the iPad®. The majority (75%) used the device for 10 minutes or less after training. Mean patient age was 46 (SD 21.37); 50% were female and 75% had medical diagnoses. At the time of use, 11 patients (55%) had an endotracheal tube in situ and 9 (45%) had a tracheostomy. Mean duration of ventilation prior to use was 21.95 days (range 2 - 79 days). Twenty clinicians completed an evaluation form. The majority agreed/strongly agreed that: they received sufficient training (90%); the application was easy to learn (95%); the application was easy for the patient to learn (84%); the application facilitated the patient’s ability to communicate (80%); and using the iPad® to communicate was relevant to their practice (95%). The majority reported that it took less than 5 minutes for them to learn how to use the application (89%) and less than 10 minutes...
for patients to learn how to use the application (95%). Most were somewhat or very satisfied (80%) with the use of the iPad® as a communication tool and perceived that patients were somewhat or very satisfied with it (63%). On a scale of 0 – 10, 75% of staff rated the usefulness of the iPad® for communication as 7 or greater.

**Conclusion:** It is feasible for ICU clinicians to learn and use an iPad® enabled communication tool to communicate with patients with artificial airways. The iPad® is a useful adjunct to current communication techniques in this population of patients.

**References:**