

Voicing on Ventilation...it takes a Village!

Communication options for tracheostomised invasively ventilated patients



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Background

Communication is a basic human right^{1,2} and is important for the provision of quality health care.

- Communication is often impaired for patients who are invasively ventilated via a tracheostomy, given the presence of the tube and its disruption to normal speech production (Figure 1)
- Procedures such as above-cuff vocalisation, ventilator adjusted leak speech and one-way valve in line with the ventilator enable the tracheostomised invasively ventilated patient to speak³
- These procedures are complex and require advanced assessment, clinical decision-making skills and coaching skills
- Success requires teamwork between the multidisciplinary healthcare team and the patient and their caregivers

Aims

- To create a suite of multi-media resources to support the methods for speech in the tracheostomised invasively ventilated patient
- To deliver multidisciplinary education in the form of an advanced seminar

Fig: 1: Click or scan the QR code to listen to Brett and Jannie describe being unable to talk after their accidents:



Method

- A comprehensive literature search was conducted and input sought from key stakeholders to develop evidence-based guidelines
- Consumer input helped create videos demonstrating real patient experiences of learning to talk on a ventilator
- A seminar organizing committee that included patient representation was convened. Owing to the COVID-19 pandemic, the seminar was held via an on-line platform (Zoom)

Fig: 2: Online Zoom seminar panel session



Results



Two evidence-based guidelines were developed:

1. Guideline for making ventilator settings adjustment when initiating communication methods (with patient selection, risks & troubleshooting)
2. Procedural guideline with step-by-step instructions for using communication methods in tracheostomised invasively ventilated patients

Two introductory videos were created with consumer input.

Click or scan the QR codes to watch the videos:

a) Ventilator Adjusted Leak Speech



b) One-way valve in line with ventilator



Speech using Passy Muir Valve (PMV) in-line with ventilator

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- On 2nd March 2021, 130 healthcare workers from 7 different countries attended the on-line seminar: "Communication Options for Invasively Ventilated Tracheostomised Patients – The Austin Health Team Approach"
- Healthcare workers heard from clinical experts and the unique perspectives and experiences of patients and families
- Highlights included the panel session (Figure 2) and a special performance by Daisy (Figure 3)
- The on-line seminar format provided benefits including higher attendance capacity, international reach and convenience for patient/family presenters
- Results of the evaluation survey showed that:
 - ✓ 92% rated the seminar "very good" or "excellent"
 - ✓ 86% rated the patient/family participation as "very good" or "excellent"

Conclusion

- This project enabled the development of a suite of formal resources and an online seminar that had international reach and was well received
- Further work is being conducted into disseminating these resources in the form of a publication and website access to the videos so that more people with tracheostomies who use a ventilator might have the possibility of regaining their voices

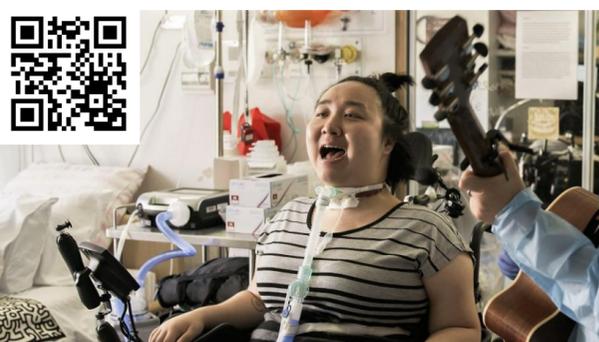


Fig: 3: Click or scan the QR code to watch Daisy's inspiring performance

References

1. Article 19 of the Universal Declaration of Human Rights (United Nations, 1948)
2. McEwin, A & Santow, E (2018) The importance of the human right to communication, International Journal of Speech-Language Pathology, 20:1, 1-2.
3. Hoit JD, Banzett RB, Brown R. Chapter 56. Ventilator-Supported Speech. In: Tobin MJ. eds. Principles and Practice of Mechanical Ventilation, 3rd ed. New York: McGraw-Hill; 2013.

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