

## Above Cuff Vocalisation in Intensive Care

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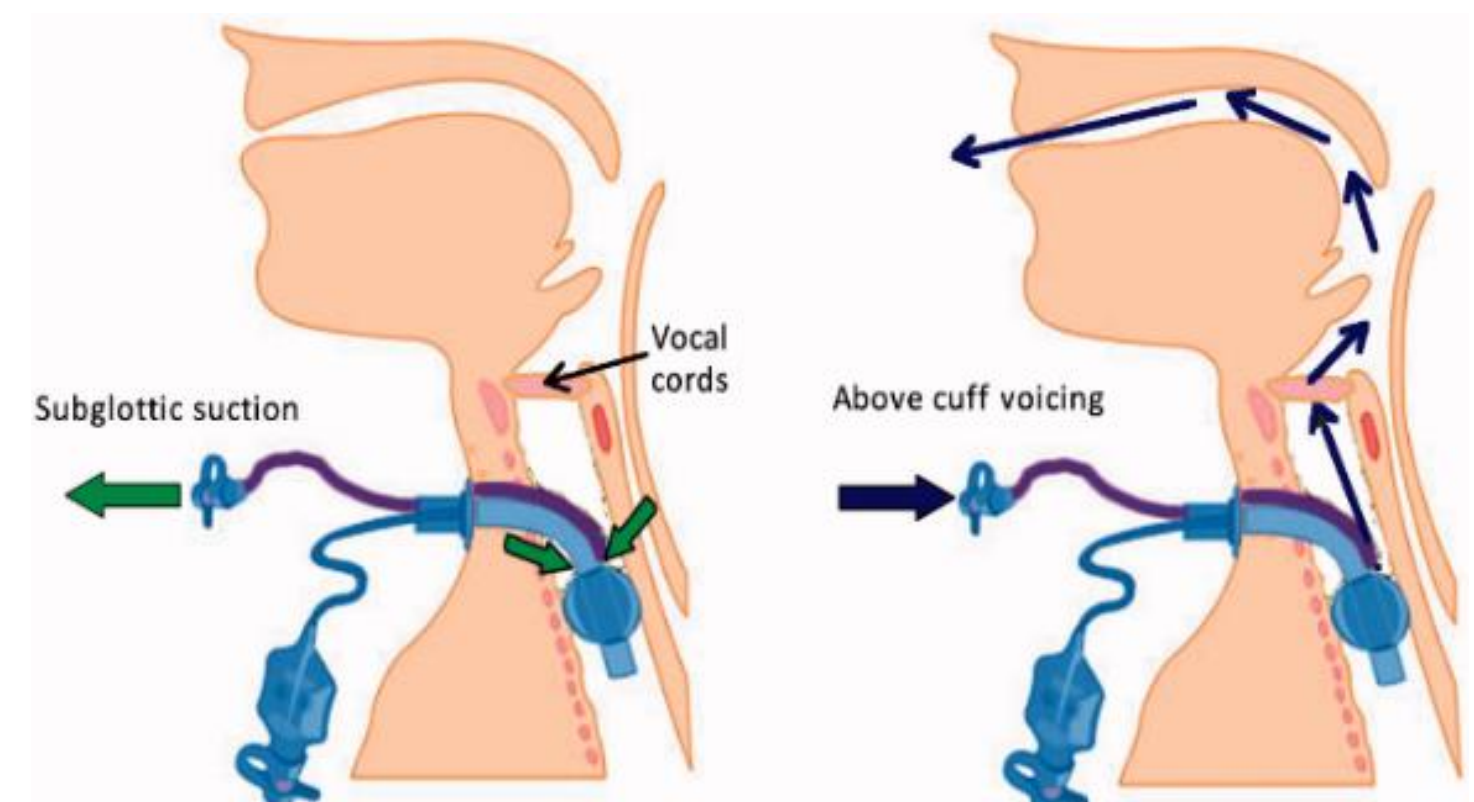
### Background:

Above cuff vocalisation (ACV) is a technique for restoring airflow to the upper airway which aims to facilitate speech in patients with a cuff-inflated tracheostomy tube (McGrath est 2018, Petosic et al 2021). ACV may also have a positive effect on secretion management and swallowing, but the impact of this is under reported (McGrath 2019).

**Project Aim:** To improve communication and secretion management in patients on Intensive care with cuffed tracheostomy tubes.

### Method:

ACV has been delivered to 9 patients on Intensive Care. All patients were mechanically ventilated via a tracheostomy and unable to tolerate cuff deflation due to high respiratory support. Cardiothoracic ICU: 4 patients, Neuro ICU: 2 patients, General ICU: 3 patients.



Effectiveness of ACV	Percentage of Patients
Voice Achieved	75%
Improved Communication	62.5%
Increase in spontaneous swallowing	100%

Complications from ACV	Percentage of patients
Nausea	25%
Vomiting	12.5%
Increase in oral suctioning	25%
Patient asked to stop	37.5%

"I feel like a person again"

"I no longer feel scared when I have my voice"

"The air is too dry and cold"

FEES carried out during ACV with two patients. Improved secretion management seen, rated via New Zealand Secretion Scale (NZSS).

#### Patient 1:

NZSS score with cuff up: 7  
NZSS score with ACV: 4

#### Patient 2:

NZSS score with cuff up: 7  
NZSS score with ACV: 5

### Changes made to MDT practise

- ACV will continue to be used on Intensive Care.
- Consultants, Nursing Staff and Physiotherapists will continue to identify appropriate patients.
- Use of subglottic tracheostomy tubes are being used routinely.
- ACV has remained therapy led for majority of patients. Barriers to nursing training have been identified. Infrequent need for ACV makes maintenance of competencies and confidence difficult.

### Next Steps

- Patient feedback and tolerance of ACV requires further reporting.
- More data is needed to assess the positive effects on secretion management and swallowing.
- Train "ACV champions" within the nursing team to help to roll out training when needed.
- ACV teaching is now part of the trust's advanced tracheostomy study day.