Handheld Tracheostomy Suction Device: Bridging Gaps between Hospital Discharge and Home Tracheostomy Care

Abigale Aldrich[1], Frederick Hansen[1], Antoinette Esce MD[2], Joshua Hanson MD[2] and Nathan Boyd MD[2]
[1]University of New Mexico School of Medicine; [2]University of New Mexico School of Medicine, Department of Surgery, Division of Otolaryngology

Introduction

- Tracheostomy tube/stoma suctioning is critical in tracheostomy care.
- Patients cannot be discharged from the hospital without receiving a suctioning device for home care, but obtaining these tools can be time-intensive and result in delayed discharge.
- We present the experiences of seven patients with an affordable handheld manual suction device for tracheostomy care and discuss the device's potential to bridge gaps between hospital discharge and home tracheostomy supply delivery.

Methods

- Seven patients who underwent tracheostomy at the University of New Mexico Hospital (UNMH) in 2023 received handheld manual suction devices and standard electric suction devices during their hospital stay. Patients were taught how to use both devices.
- Prior to discharge, patients were given a six-question survey. Four questions were formatted as a 1-5 Likert scale (1 represents "Not at All", 5 represents "Very"). Two questions were "Yes" or "No" format. "Not applicable" was an option for all six questions.
- Primary outcomes:
  - Ease of use of each device
  - Perceived effectiveness of each device
- Secondary outcomes:
  - Patient-reported confidence of each device
  - Patient-reported safety of each device

Results

All patients completed the survey. On average, patients rated ease and effectiveness of the standard electric suction device at 4.8 and 4.7 out of 5, respectively. The average rating of ease and effectiveness of the handheld manual suction device were 5.0 and 5.0 out of 5, respectively. Six of seven patients felt confident and safe using the electric suction device; the remaining patient responded, "Not applicable". All patients reported feeling confident and safe using the handheld manual suction device.

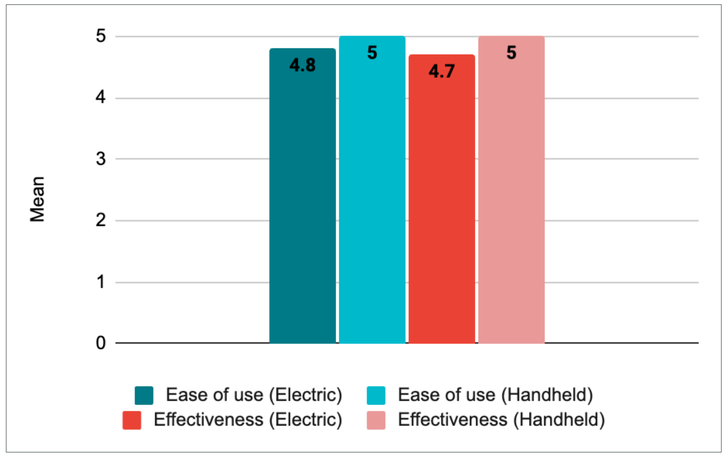

Figure 1: Mean Patient Satisfaction of Ease and Effectiveness of Electric and Handheld Suction Devices (n=7)

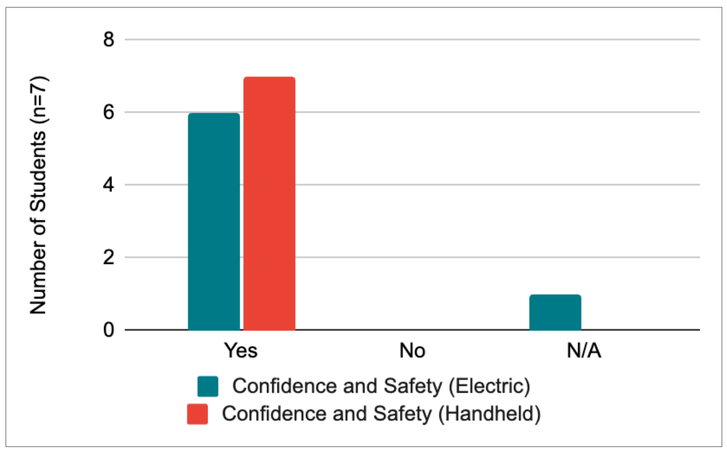

Figure 2: Patient's Feelings of Confidence and Safety when Using Electric and Handheld Suction Devices (n=7)

Conclusions and Key Takeaways

Tracheostomy patients at UNMH rated handheld manual suction devices highly regarding ease of use, efficacy, safety, and confidence.

Handheld manual suction devices are an affordable and patient-accepted option to facilitate discharge in patients with new tracheostomy while they await delivery of their home electric suction devices.

References

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