

Disinvestment research in high-risk clinical populations: weekend allied health services to acute medical and surgical ward tracheostomy patients – a pilot non-randomised controlled clinical trial

Mitchell Sarkies¹, Kelly-Ann Bowles², Elizabeth Skinner³, Deb Mitchell⁴, Romi Haas⁵, Karen Salter⁶, Melissa Ho⁷, Terry Haines⁸

1 Monash University Physiotherapy Department and Monash Health Allied Health Research Unit mnsar2@student.monash.edu

2 Monash University Physiotherapy Department and Monash Health Allied Health Research Unit kelly-ann.bowles@monash.edu

3 Western Health Physiotherapy Department and Monash University Physiotherapy Department Elizabeth.skinner@wh.org.au

4 Monash Health Allied Health department and Monash University Physiotherapy Department deb.mitchell@monashhealth.org

5 Monash University Physiotherapy Department and Monash Health Allied Health Research Unit romi.haas@monash.edu

6 Monash Health Allied Health Research Unit Karen.salter@monashhealth.org

7 Monash Health Allied Health Research Unit Melissa.ho@monashhealth.org

8 Monash University Physiotherapy Department and Monash Health Allied Health Research Unit terrence.haines@monash.edu

Background: Interdisciplinary tracheostomy teams have reduced hospital length of stay, cost, and improved patient safety. The allied health component of this service is not always delivered seven days per week, as not all health services provide weekend allied health or only provide to patients meeting specific weekend allied health referral criteria. This pilot study investigated the effect of weekend allied health disinvestment on acute medical and surgical ward tracheostomy patients.

Method: Mixed prospective and retrospective, two group non-randomised controlled clinical trial across two tertiary public hospitals in Melbourne, Australia. Control group (n=12): All patients admitted to acute medical or surgical wards with access to weekend allied health services between September 2013 to June 2014. Intervention group (n=20): Patients admitted to acute medical and surgical wards without access to weekend allied health services between April 2014 to January 2015.

Results: There was no significant difference between the two groups for acute hospital length of stay days (control mean, 32.33; IQR, 20.48-44.18; intervention mean, 22.25; IQR, 17.56-26.94) ($z=0.64$, $p=0.52$), Intensive care unit length of stay hours (control mean, 198.77; IQR, 49.93-347.60; intervention mean, 117; IQR, 48.33-186.33) ($z=0.148$, $p=0.88$), days to decannulation (control mean, 22.89; IQR, 8.45-37.33; intervention mean, 17.44; IQR, 11.06-23.83) ($z=0.46$, $p=0.64$), and days to oral intake commencement (control mean, 20.9; IQR, 5.96-35.84; intervention mean, 7.57; IQR, 12.18-23.02) ($z=-1.21$, $p=0.23$).

Discussion: There was no statistically significant difference identified between the control and intervention groups, likely due to the limited number of subjects and variability of data within groups. Further research with larger patient cohorts is needed to explore different models of weekend allied health services to tracheostomy patients on acute medical and surgical wards. Concern over the potential effects of weekend allied health disinvestment may be justified due to the high clinical risk and resource intensive nature of tracheostomy patients.

Word count: 299

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