



Safety, feasibility and acceptability of in-bed cycling with critically ill patients.

Dr Marc Nickels (Physiotherapist)^{1,2,3,5}, Prof. Leanne Aitken (Critical Care Nurse)⁴, Dr. James Walsham (ICU Consultant)^{5,6}, Prof. Adrian Barnett (Statistician)², Scott King (Sonographer)⁸, Azmat Ali (Dietician)^{5,9}, Stewart Mealing (CNC)⁵, Prof Steven McPhail (Physiotherapist)^{2,3,7}.

1 Physiotherapy Department, Princess Alexandra Hospital (PAH), Metro South Health (MSH), 2 Australian Centre for Health Services Innovation, Queensland University of Technology, 3 Centre for Functioning and Health Research, MSH, 4 School of Health Sciences, City, University of London, 5 Intensive Care Unit, PAH, MSH, 6 School of Medicine, University of Queensland, 7 Clinical Informatics, MSH, 8 Department of Radiology, PAH, MSH, 9 Department of Nutrition and Dietetics, PAH, MSH.

Introduction

In-bed cycling with critically ill patients may improve patients' function.

In-bed cycling is not routinely implemented early during a patients' critical illness.

Patient, family and clinician acceptability of in-bed cycling is unknown.

Research objectives

Assess the safety, feasibility and acceptability of early in-bed cycling with critically ill patients.

Methods

Process evaluation in one arm of a two-arm parallel randomised controlled trial conducted at the Princess Alexandra Hospital ICU.

Safety: Haemodynamic parameters and occurrence of pre-defined adverse events were recorded.

Feasibility: Number of sessions of in-bed cycling planned, conducted and completed.

Acceptability: Acceptability of intervention questionnaire designed by a Delphi panel (including lay consumers) was administered to participants, families and clinicians.

Results

Participants cycled = 36.

Safety: Two minor transient adverse events (0.7%) (desaturation, increased respiratory rate).

Feasibility: Sessions commenced median (IQR) 2.3 (1.8, 3.1) days following ICU admission.

91% (276 of 304 sessions) planned were commenced. 80% (221 of 276 sessions) of commenced sessions completed full 30 minutes.

Acceptability: Congruent responses from participants, families and clinicians.

Discussion

In-bed cycling can be safely and feasibly be commenced early during critical illness. The intervention was well accepted by participants. Families responded positively to observing their family members participating. Clinicians also found the intervention to be acceptable.

Limitations

Single centre study with a small sample size may limit the generalisability of findings.

Conclusion

In-bed cycling is safe, feasible and an acceptable intervention to implement with critically ill patients early during a patients critical illness.

Selected references

Nickels MR, et al (2017), Critical Care Cycling Study (CYCLIST) trial protocol. *BMJ Open*. doi: 10.1136/bmjopen-2017-017393

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