



## Activity and Mobility Using Technology (AMOUNT) rehabilitation trial - August 2016



The George Institute  
for Global Health

### Facts:

- The delivery of inpatient rehabilitation in Australia continues to grow each year.
- Observational studies conducted in rehabilitation units have shown people in rehabilitation only spend between 2% to 31% of the day completing therapeutic activities.
- Mobile device ownership is growing globally, spanning generations with 70% owning smartphones, over half tablets and 14% activity monitors like Fitbits.

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### Background:

- People with mobility limitations can benefit from rehabilitation programs that provide a high dose of exercise.
- However, since providing a high dose of exercise is logistically challenging and resource intensive, people in rehabilitation spend most of the day inactive.
- Video and computer games/exercises and tablet applications as well as activity monitors potentially provide an affordable way to increase the amount of exercise and overall physical activity for people in rehabilitation.



### Aims:

- The overall aim of this study is to determine the effect of the addition of affordable technology to usual care on physical activity levels and mobility in people with mobility limitations admitted to inpatient aged and neurological rehabilitation units compared to usual care alone
- This research will also determine the effects of the intervention on other important secondary outcomes such as participation, cognition and quality of life and will evaluate the cost effectiveness and experiences of people using technology in rehabilitation.

### Methods:

- This research is a pragmatic, assessor blinded, parallel-group randomised trial recruiting 300 consenting rehabilitation patients with reduced mobility.
- Both groups will receive usual inpatient and outpatient rehabilitation care.
- The intervention group will also receive technology-based exercise to target mobility and physical activity problems for 6 months. The technology will include the use of video and computer games/exercises and tablet applications as well as activity monitors.
- This study will be the first trial of tailored exercise using affordable technology integrated with usual rehabilitation care to be adequately powered to detect effects on important mobility outcomes.

### Impact:

- The pragmatic trial design has the advantage that we are testing this intervention in the real world and as such, if found effective, is ready to be implemented in clinical practice.
- Technologies to enable ongoing exercise are likely to become increasingly important in the future as the proportion of older people in the population increases and resources to provide rehabilitation care become more limited.

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