

## 2015/2016 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 5pm on **3 July 2015**

### Supervisor Information (First named supervisor will be the contact):

Supervisor's Name and Title(s): Dr Claire Heppenstall

Department: Department of Medicine, University of Otago, Christchurch

Institution: UOC

Phone: 027 349 4703

E-mail: [claire.heppenstall@otago.ac.nz](mailto:claire.heppenstall@otago.ac.nz)

Mailing Address: 1<sup>st</sup> floor, Princess Margaret Hospital, PO Box 800, Christchurch

### Research Category (Choose one category only – to be used for judging the students' presentations):

**Clinical**

**Laboratory**

**Community Yes**

### Project Title (20 words MAXIMUM):

The impact of cognitive impairment on engagement and outcomes with a community rehabilitation and support service.

### Project Description:

#### Introduction:

The CDHB Community Rehabilitation, Enablement and Support Team (CREST) service was introduced in 2011 with the goal of keeping frail older people as independent as possible in their own homes. Older people undergo multidisciplinary assessment and rehabilitation in their own homes using an individualized goal-directed ladder. However the service has not previously been formally evaluated, and so is currently undergoing a detailed evaluation.

Cognitive impairment is an important issue in the frail elderly. Studies have found that up to 50% of people over the age of 85 years have cognitive impairment (1), and this will be more in our specifically frail group. Cognitive impairment has been shown to predict adverse outcomes in inpatient rehabilitation facilities (2), but there is less evidence in a community based group (3).

As part of this CREST evaluation, baseline cognitive function is being assessed in all participants. We have found to date that there are high levels of previously undiagnosed cognitive impairment in this frail older population (Heppenstall et al, 2015, unpublished data). What we do not know is how cognitive impairment impacts on the rehabilitation program in this community setting.

#### Aim:

1. To evaluate the impact of cognitive impairment on engagement with the CREST service.
2. To evaluate the impact of cognitive impairment on the achievement of goals with the CREST service.

#### Method:

As part of the evaluation project older people are being recruited at the time of discharge from hospital, and undergoing assessments including frailty, function in daily activities, and cognition. Cognition is being assessed using the Montreal Cognitive Assessment Tool (MoCA). This study will use a sample of people from these existing data, stratified by cognitive score. Outcomes will be assessed using two methodologies.

First, older participants main informal caregiver will be contacted. Qualitative interviews will be carried out, to evaluate how well they thought the older person engaged with the CREST service, and their experience of the service. Interviews will be recorded and transcribed, and key themes will be identified. There will be three groups: cognitively normal, mild cognitive impairment and moderate-severe cognitive impairment.

Second, CREST records will be accessed. Older people's goal ladders at the beginning and end of CREST input (usually 6 weeks) will be assessed to determine how many of their goals were achieved fully or partially. A total score will be calculated, and the three groups compared.

We will aim for 3 interviews per week for 6 weeks (total 18 participants), allowing time for analysis and collation of results. For the second part a sample of 20 participants for each of the three groups will be selected (60 participants in total). This should allow sufficient numbers for meaningful comparisons to be performed.

#### Bibliography

1. Shadlen MF and Larson EB. Evaluation of cognitive impairment and dementia. Up-to-date 2015; topic 5083, version 21.0.
2. Landi F, Bernabei R, Russo A et al. Predictors of rehabilitation outcomes in frail patients treated in a geriatric hospital. *Journal of the American Geriatrics Society* 2002; 50: 679-684.
3. Yu F, Evans LK, Sullivan-Marx EM et al. Functional outcomes for older adults with cognitive impairment in a comprehensive outpatient rehabilitation facility. *Journal of the American Geriatrics Society* 2005; 53: 1599-1606.

**Student Prerequisites (eg. Medical Student) if applicable:**

**None**