

2016/2017 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 5pm on **4 July 2016**

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

First Supervisor's Name and Title: Dr Deborah Snell, Senior Research Fellow

Department - UOC &/or CDHB (if applicable): Department of Orthopaedic Surgery and Musculoskeletal Medicine (OS&MM) UOC

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Co-Supervisors Name and Title(s): Dr Jo Nunnerley, Research Fellow OS&MM; John Bourke, PhD Student University of Canterbury; Rachelle Martin, PhD student University of Otago Wellington

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

Clinical



Laboratory

Community

Project Title (20 words MAXIMUM):

A retrospective audit of admissions to the Transitions Unit at the Burwood Spinal Unit

Project Description:

Introduction:

The Burwood Spinal Unit (BSU) is one of two spinal units in New Zealand and is located on the Burwood hospital campus. It provides semi-acute, post-acute rehabilitation and elective inpatient and outpatient reassessment services to patients with spinal cord impairment (SCI) resulting from either traumatic injury or non-traumatic causes. The BSU consists of 26 ward beds, 4 hostel beds and 8 accommodation units, which are utilised by both families and patients. The BSU catchment area covers Napier across to New Plymouth and everywhere south including the entire South Island. The Auckland Spinal Rehabilitation Service (ASRU) covers the remainder of the North Island. Patients in the BSU catchment are admitted to the hospital closest to site of injury and are then transferred to the BSU for ongoing management and rehabilitation via Christchurch Hospital, when clinically stable. Approximately 90 patients per annum are discharged from the BSU following acute spinal impairment.

Following an acute injury, patients may spend 3-9 months rehabilitating in the BSU, depending on their level of impairment and other factors. A Transitions Unit and rehabilitation programme (the TR programme) was introduced in 2009 and prior to this patients would reside in the ward setting for the duration of their stay, sometimes moving over to the hostel for the odd night near the end of their stay, but this was dependent on staffing, acuity levels on the ward, family support and had no formal structure around it. The TR Programme was developed in response to two major issues identified in the BSU:

1. It was evident that patients being discharged from BSU following rehabilitation were not as well prepared for reintegration back in to the community as they could be
2. The service experienced periods when it was unable to admit patients that required BSU level care due to bed shortages, therefore identifying a capacity issue. This primarily related to the inability to admit non acute patients from the community or other facilities for surgery, assessment, pressure area care or post-operative rehabilitation.

Development of the TR Programme

In 2008 the BSU, the Burwood Academy of Independent Living (BAIL) and the New Zealand Spinal Trust (NZST) formed a working party to improve the discharge preparation process for patients with a newly acquired spinal cord impairment (SCI). Research undertaken in New Zealand by BAIL in 2006-2008 indicated that the existing rehabilitation process was failing to prepare newly injured individuals adequately for community re-entry. Bed capacity issues were an additional indicator of a need for organisational reform.

The TR programme was implemented in March 2009 initially as a 12 month pilot. The results of the multi-modal evaluation process undertaken during the pilot period demonstrated that the TR programme added significant benefit to the rehabilitation experience for newly injured participants, their families, and staff both with the programme and in the acute BSU ward. The TR programme now forms part of the BSU's routine post-acute inpatient care pathway.

We are now planning to carry out an evaluation of the TR programme working with the Canterbury District Health Board (CDHB). This programme has been operating now for 7 years and we have comprehensive baseline data collected during the pilot period. We are aiming to consider whether the TR programme has continued to deliver services and operate as it was intended at programme set up. As part of this work and to set the scene and context for the larger evaluation, we will be carrying out a retrospective audit of admissions to the programme.

Aim:

The overall research aim is to explore factors impacting on the person with SCI's experience of transitioning, both from the BSU to the TR programme, and then from the TR programme to home. The study will have two arms incorporating both the perspectives of people with spinal cord impairments, and the CDHB staff within the BSU (ward and TR programme).

Alongside this study we are looking for a student to help us with a retrospective audit of demographic and clinical data to better understand the context in which the TR programme has been/is delivered.

The student's work will make an important contribution to completion of our programme evaluation, and ultimately refinement of health services and outcomes for people with SCI in NZ. We hope the student will gain an understanding of rehabilitation issues for people with SCI, as well as experience and skills carrying out a service audit, including data management, while working within a live research and health service delivery context.

Possible impact (in lay terms):

The potential impact for the wider evaluation will be improvement in service delivery for people with SCI in NZ. The evaluation will be focusing on what works best for whom, in which context and will help the providers of the programme refine this for wider and more targeted efficiencies and impact. The student's contribution to this process will be highly valued.

Method:

This is a retrospective audit of clinical records and other data available from the BSU. Specific information we are seeking includes:

- How many and who has accessed the TR programme?
(e.g. age, gender and ethnicity characteristics)

- How long were they in the programme?
- Patient numbers in the TR hostel at different times.
- Total length of stay (ward and hostel) for patients – compared with the pilot evaluation data
- Diagnosis and impairment level mix (eg ASIA impairment levels)
- Acute vs readmission mix
- Outcome measures used over time
- Patient outcomes from available outcome measure scores.

Data analysis will include descriptive and summary statistics and plotting trends over time.