

## 2014/2015 Summer Studentship Project Application Form

Send to: Research Office, University of Otago Christchurch, PO Box 4345, Christchurch, by 5pm on **4 July 2014**

<b>Supervisor Information (First named supervisor will be the contact):</b>	
Supervisor's Name(s): <b>A/Prof David Jardine, A/Prof Matt Doogue, Prof Murray Barclay</b>	
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<b>Research Category (Choose one category only – to be used for judging the students' presentations):</b>	
<b>Clinical</b>	
<b>Project Title (20 words MAXIMUM):</b>	
Clinical guidelines, complex patients and polypharmacy	
<b>Project Description:</b>	

**Background:** The majority of patients admitted to hospital are elderly and have multiple diagnoses. Each diagnosis has implications for patient management and for each diagnosis there are substantive national or international guidelines to guide management. Most clinical guidelines provide substantive guidance on initiating medications but few provide guidance on ceasing medications or the impact of comorbidities or frailty on treatment outcomes. This study will evaluate the appropriateness of guidelines for complex patients by comparing recommended medications with actual medications.

The selected student will learn and be involved in data analysis and interpretation and in presentation of results. The student will have close supervision by Clinical academic staff. The student will be encouraged to present their project at a scientific meeting - although this is not required and would be outside the 10-week project time frame.

The student is expected to have basic knowledge of medical literature, search skills, computer skills including spreadsheet use and the ability to write clearly.

**Aims:** To compare the medications recommended by national and international guidelines with the medications prescribed to a cohort of patients admitted to hospital. To summarise the potential consequences of applying disease guidelines to complex patients.

### **Methods:**

A cohort study of patients admitted to general medicine at Christchurch Hospital will be undertaken. For 50 consecutive patients their diagnoses will be matched to the relevant national or international guideline to compile a list of "indicated" medications. This list of "indicated" medications will be compared with the actual medications prescribed by the general medical team. The "indicated" medication lists will be evaluated for potential harm based on known adverse drug reactions and known drug interactions associated with those combinations.

The data will be evaluated using descriptive and comparative statistics using Microsoft Excel, Graph Pad Prism and SPSS as appropriate.

**Significance:** The impact of multiple morbidities on patient care is substantive and most guidelines lack deprescribing guides to inform treatment of in complex patients. This project will describe a challenge of the current environment and provide an estimate of the need for deprescribing. This will improve our understanding of guideline changes likely to have greatest impact on the care of complex patients.

