

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 Paul Chin

Department - UOC &/or CDHB (if applicable): UOC, Department of Medicine, Clinical Pharmacology

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First Supervisors Mailing Address: Department of Medicine, UOC, PO Box 4145, Christchurch 8140

Co-Supervisors Name and Title(s): A/Prof Matt Doogue

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

Clinical

Project Title (20 words MAXIMUM):

Antiplatelet/anticoagulant drug interaction alerts in MedChart

Project Description:

Introduction: Bleeding is the main adverse drug reaction from antiplatelet and anticoagulant medications. These medicines are implicated in almost 50% of hospitalisations for adverse drug reactions imposing a high burden on patients and the community. Such hospitalisations may be prevented with greater recognition by prescribers of the risk of combining these medications.

MedChart® is the electronic prescribing and administration system used in New Zealand public hospitals, including CDHB. Alerts warning prescribers about combining antiplatelet and anticoagulant medications, have been locally configured into CDHB MedChart. These alerts fire during prescribing, at which point prescribers can respond by either changing the prescription (choose to avoid the combination) or overriding the alert (choose to use the combination). The utility of any given alert varies between prescribers and the patients being treated. CDHB has set up systems to extract data from MedChart® for measurement and evaluation, including the rates of alert-instigated prescription changes and alert-overrides.

The student will be involved in data analysis, interpretation and 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.

Aim: To evaluate the rates of alert-instigated prescription changes and alert-overrides, per CDHB prescriber group, for antiplatelet and anticoagulant medication MedChart alerts.

Possible impact (in lay terms): Prescribing guidance alerts in MedChart should be relevant to the medicine, prescriber and patient. These alerts are most valuable when targeted at prescriptions at high risk of an adverse outcome for the patient, such as bleeding from blood thinning medicines. However, some prescribers may find these alerts a nuisance, with a high override rate. Understanding when and why these alerts are overridden will inform further refinement of the locally configured alerts to reduce the risk of bleeding from blood thinning medicines.

Method: Antiplatelet/anticoagulant medication alert data for all patients treated in CDHB hospitals during the study period August to November 2016 will be extracted from MedChart® for analysis. Rates of alerts and prescriber responses to alerts will be analysed (per 1,000 admissions and per 100,000

prescriptions) by prescriber groups and concomitant medical problems, from the discharge summary. Microsoft Excel and GraphPad Prism will be used for analysis.