

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**

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

Supervisor's Name(s): Dr Manar Khashram, Professor Justin Roake

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

Clinical X

Laboratory

Community

Project Title (20 words MAXIMUM):

Determining The Prevalence Of Normal And Sub Aneurysmal Aortic Diameters In Patients Undergoing CT Colonography

Project Description:

Background

Abdominal aortic aneurysms is a common condition that affects 1 in 20 males over 60 years old. Internationally, there is a suggestion that this prevalence is decreasing. However in New Zealand this high prevalence has been observed (1). While most AAA are small and unlikely to rupture, expansion of the sac occurs over time and the increased life expectancy will therefore lead to a large number of patients with AAA that require management. Factors influencing aortic diameters include: age, sex, race and history of tobacco use.

In the literature the definition of an AAA has been set at 3cm and repair is recommended at threshold of 5.5cm. However, studies have revealed that females have smaller aortic diameters, present with rupture with smaller AAA and have worse major adverse outcomes compared to males. Hence clinical management might need to be modified to adjust for these variables.

Aims

The objectives of the study is to determine the normal and sub aneurysmal aortic diameters in patients undergoing CT Colonography (CTC) for gastrointestinal symptoms

Methods

This is retrospective study of all patients undergoing CTC in the Canterbury region from 2009-2013.

The aorta at the suprarenal and the infrarenal level from the CT will be measured using a standardised validated method. Briefly, short axis measurements in a magnified view with outer to outer wall diameters will be recorded. The database and patient demographics of this population has already been established. The ethics board has approved this study.

Significance:

While most AAA screening population studies investigated the male population, natural history data on female abdominal aorta is not fully documented. Data on "normal" and sub aneurysmal diameters of abdominal aortas in New Zealand is lacking. On completion, this research project will provide local data on abdominal aortic diameters in a large population at no extra cost as the CTC has already been performed.

This project will yield a peer reviewed journal publication and a verbal presentation at a vascular conference.

Reference:

1) Khashram, M., & Roake, J. (2013). AAA screening in New Zealand: A pilot prevalence study. *Proceedings of the Australia and New Zealand Society of Vascular Surgery (ANZSVS) Vascular Conference: Evidence Based Vascular Surgery and Organisation of Vascular Surgery Services*

