

Intercalation Research Project

Project Title:	Abdominal Aortic Aneurysm Diameters: A Prospective Study on the Discrepancy between the methods Measurements in the AAA Screening population.
Lead Supervisor: Name: Department: Email Address: Telephone:	Mr A D Pherwani, Consultant Vascular Surgeon Vascular Office, Ward 110 Office Suite, Lower Floor, Lyme Building, University Hospital of North Staffordshire, Stoke on Trent, ST4 6QG Arun.pherwani@uhns.nhs.uk 01782 679887
Co-supervisor: Name: Department: Email Address: Telephone:	Dr John Asquith Consultant Vascular Radiologist John.asquith@uhns.nhs.uk 01782 679273

Aims

Please outline the aims of your proposal (250 words):

NHS AAA Screening Program (NAAASP) began phased implementation began in 2009 with coverage throughout England being completed in Spring 2013. Ultrasound (US) was the modality of choice for screening as it is reliable, non invasive and relatively inexpensive. Traditionally US anterior-posterior (AP) diameter is used to size AAA, this was proven to be an accurate reproducible measurement with low inter-observer variability. With time three techniques of measurement have been developed; inner to inner (ITI) and outer to outer (OTO) diameter with regard to the aortic wall and more recently described– leading edge to leading edge (LELE). This study aims to directly compare the three methods ITI, OTO and LELE in a real time scanning setting during AAA Screening. Furthermore the real time collected images stored on the scanner could then be blinded for static image interrogation by different observers to test for inter observer variability. We would also have the opportunity to record these measurements in smaller normal or sub aneurysmal aortas thus answering another important question – are these differences in diameter that have been recognised in aneurysmal or larger aortas still present in smaller non aneurysmal aortas

Research Plan & Methodology

Explain how you intend to carry out the study. This includes the sampling strategy you intend to use, the data collection process and an analysis plan (750 words):

The Staffordshire and South Cheshire AAA Screening Programme screens about 7500 men every year for AAA at the age of 65 and older men can self refer into the programme. We would propose obtaining information on a subset of these for a two to three month period. That would give us between about 1500 scans for which we would compare real time measurements in a live scanning setting done by AAA Screening technicians using the three methods. We would also then blind a subset of these for further examination of inter observer variability and standardisation on the static images recorded previously. Radiology Consultants, Specialist Registrars and Vascular Laboratory Sonographers independent of AAA Screening technicians will record these measurements on the static images.

Data will be entered onto a prospective database MS Excel and analysed using appropriate Statistical software and support from Keele University.

The Project will have to be submitted for Research Ethics Approval and also the Research Subcommittee of the Vascular Society and the AAA Screening Programme. Measures will have to be in place to provide GCP and research training to the screening technicians along with training for measurements with all three methods.

Supervision Plan

Highlight the supervisory support available to the student (250 words):

Help would be provided in research methodology and critical appraisal along with writing skills for thesis / publication / presentations and viva. In addition to the clinical supervisors there will be additional research supervisors with academics from Keele University.

Clinical Supervisors will include

Mr A D Pherwani, Mr Jack Fairhead, Mr Sriram Rajagopalan – Consultant Vascular Surgeons

Dr John Asquith, Dr John Oxtoby – Consultant Radiologists

Mr Lewis Meecham – SpR Vascular Surgery.

Signatures & Declarations

Please ensure that all signatures are collected – otherwise your application may be delayed:

Principal Investigator:	Mr Arun Pherwani
Signature:	
Clinical Director :	Miss Aideen Walsh
Signature:	

Deadline 31st September 2014

Please submit the electronic version of your intercalation project to Keira.Watts@uhns.nhs.uk. If you have any enquiries, feel free to contact the Academic Development Team by phone or e-mail: