



TheAlfred



Clinical Pharmacology

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The Clinical Pharmacology Unit provides drug-related services to The Alfred, including advice to and membership of the Drug and Therapeutics Advisory Committee and the Human Research Ethics Committee, leadership on the Adverse Drug Reactions Committee and consulting on drug and toxicology related clinical problems.

The Clinical Pharmacology Unit has a very active program of basic and clinical research involving evaluation of new and established drug therapies.

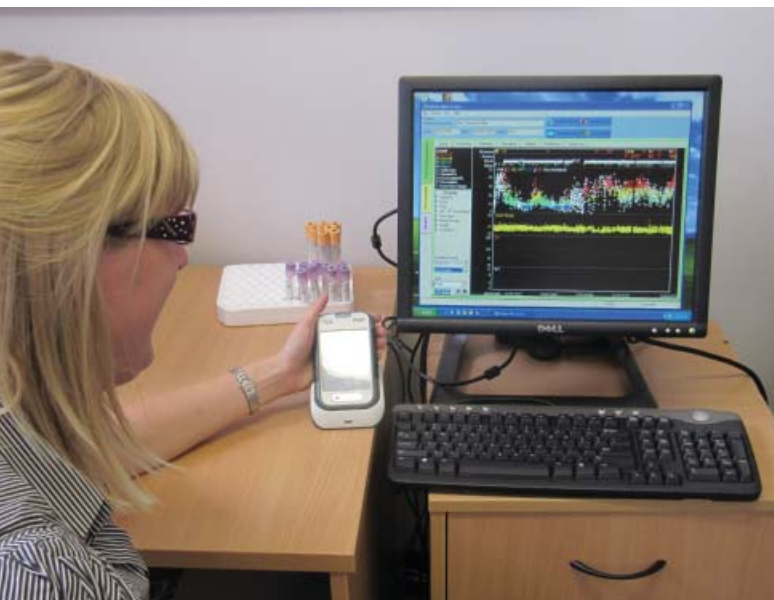
Clinical Research

Clinical research is focused on drugs that may affect the cardiovascular system. Agents under current active research evaluation include COX-2 inhibitors, angiotensin receptor blockers, aldosterone receptor antagonists, clozapine and beta-blockers, as well as various experimental agents. Evaluations include assessment of autonomic and endothelial function as well as microcirculation tone in health and disease.

The unit also serves as a coordinating centre for multicentre clinical trials. Current ongoing trials include:

- ANGLE-HF: This study evaluates the utility of renal biomarkers in predicting worsened renal function and major cardiovascular events in patients with acute decompensated heart failure.
- SCREEN-HF: (SCReening Evaluation of the Evolution of New Heart Failure). The SCREEN-HF study has now recruited all 3,500 elderly (>60 years) subjects with at least one risk factor for heart failure and determined plasma brain natriuretic peptide (BNP) levels. Funding has been secured to longitudinally follow up all subjects for 5 years to assess for new heart failure development, and to randomise the highest BNP quintile to spironolactone versus placebo to lower BNP and reduce heart failure development.

Susie Cartledge analyses a patient's left atrial pressure obtained from their implanted HeartPOD™ device via a handheld patient advisory module.



PhD student Lavinia Tran conducts an iontophoresis study to assess vascular tone.

- Triple R (Reverse Remodelling Resynchronization) Study: Patients with heart failure may be eligible to receive a biventricular pacemaker (cardiac resynchronization therapy) if they have evidence of dyssynchrony either on ECG or imaging. However, the mechanism by which cardiac function is improved is poorly understood and, furthermore, approximately 30% of eligible patients either have no response or deteriorate with this therapy. This randomised controlled trial seeks to determine mechanisms by which patients improve cardiac function and/or whether certain markers of disease predict non-response.
- Renal denervation: Assessment of a novel procedure to denervate renal sympathetic activation in resistant hypertension.
- INTEGRATE: Evaluation of physician inertia in hypertension management and strategies to improve this problem.
- Fibroscan: Evaluation of effect of heart disease on liver fibrosis/stiffness.
- ATMOSPHERE: Evaluation of a direct renin inhibitor in heart failure.

Basic Research

The unit also conducts a number of basic research programs within the Monash Central Clinical School research laboratories. Current programs include:

- Heart-kidney interactions in cardiac disease
- Role of soluble epoxide hydrolase inhibitors in cardiac disease
- Role of Rho kinase in cardiac fibrosis
- Role of novel agents in cardiac fibrosis and inflammation

Postgraduate Students
6 PhD Students

Publications
27 Journal Articles