

Bianca Levkovich, Senior ICU pharmacist, monitors a medication infusion for her project 'Short duration infusion versus bolus administration of β -lactam antibiotics in ICU'.



PHARMACY

Director: Professor Michael Dooley BPharm, GradDipHospPharm, FSHPA

RESEARCH ACTIVITIES

The development of the Centre for Medication Use and Safety (CMUS) as an approved research centre within Monash University is advancing. The governance process and business case have been completed, with formal support received from both the Faculty of Pharmacy and Pharmaceutical Sciences and the Faculty of Medicine, Nursing and Health Sciences. Final endorsement from the Deputy Vice-Chancellor (Research), Monash University is soon to be sought.

The infrastructure development of the CMUS facility has also been completed, with the generous financial support of the Ian Potter Foundation and Alfred Health. Building work was completed and staff commenced work within the new facility in October 2008, which provides significantly improved accommodation for private offices, drug information service, a conference room and several work stations for researchers.

The research activities of the Pharmacy Department fall under the broad banner of evaluating the quality use of medicines, and may be classified under the following themes:

- Medication safety
- Therapeutics
- Practice research
- Outcomes research

CURRENT PROJECTS

A collaboration between the Pharmacy Department, Monash University Department of Epidemiology and Preventive Medicine, The Alfred Department of Allergy, Immunology and Respiratory Medicine and Roche Pharmaceuticals resulted in a successful three-year Australian Research Council (ARC) Linkage Grant. Funding provided by the ARC is in excess of \$387,000 and will enable the investigation of the economic impact of improved adherence to treatment plans in chronic disease.

Two collaborations between the Pharmacy Department, Monash University Faculty of Pharmacy and Pharmaceutical Sciences, Curtin University, Griffith University and Charles Sturt University resulted in two successful grants from the Commonwealth Department of Health and Ageing via the Pharmacy Guild Fourth Community Pharmacy Agreement Research and Development Program. The first was the successful tender to conduct research into palliative care in community pharmacy. The second, an investigator-initiated grant, is entitled 'The integration of complementary medicines in community pharmacy practice'.

Another significant project is in collaboration the Monash University Department of Epidemiology and Preventive Medicine and the NHMRC Centre of Research Excellence in Patient Safety. This project is a case control study investigating factors contributing to the risk of bleeding in patients receiving warfarin therapy and is well advanced, with a number of conference presentations and publications arising so far.

Research collaboration with Rehabilitation, Aged and Community Care at Caulfield Hospital is investigating patients' ability to self-administer medications when they are discharged home. Through this collaboration, a \$49,000 research grant was obtained from the Collier Charitable Fund.

A collaboration with the The Alfred Gastroenterology Department investigates the role of thiopurine methyl transferase (TPMT) genotype and thiopurine metabolite monitoring for optimising thiopurine drug therapy in inflammatory bowel disease patients. The study is recruiting well and interim results have been presented at an international genetics conference, with a manuscript submitted for publication.

OTHER PROJECTS

- Validation of the modification of diet in renal disease (MDRD) equation and applicability for electronic reporting of glomerular filtration rate estimates by pathology departments (Professor Michael Dooley)
- The frequency of initiation of newly marketed medications in the acute hospital setting (Gavin Flett)
- Pharmacokinetics of oral and sublingual tacrolimus in patients receiving lung transplantation (Steven Ivulich, Bianca Levkovich)
- Prescribing and safety issues of molecular therapies and oral chemotherapy: a survey of medical oncologists (Maria Larizza)
- Assessing the incidence of nephropathy in HIV-positive patients: comparison of the Cockcroft and Gault and MDRD formulas (Kate Mackie)
- The impact of barcode scanning on dispensing accuracy and workflow in dispensing medication (Susan Poole)
- The impact of a vancomycin loading dose on time to achieve therapeutic levels (Jackson Truong)
- Quantification of the use of error-prone abbreviations in prescribing in the acute hospital setting (Meredith Wiseman)
- Initiation of medication in an acute hospital: implications for pharmacogenetic testing (David Zhu)

POSTGRADUATE STUDENTS

9 Masters Students
1 PhD Student

PUBLICATIONS

25 Journal Articles
1 Book Chapter