



media release

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Study aims to better predict outcomes for critically-ill kidney patients.

Doctors should in future be able to better predict the outcomes of patients with rapidly deteriorating kidneys thanks to newly funded University of Otago, Christchurch, research.

Dr John Pickering, Senior Research Fellow at the University's Christchurch Kidney Research Group has just been granted \$306,666 for his study *Critically ill with a failing kidney: how can we predict what happens next?*

The grant is a Fast Start one from the prestigious Marsden Fund.

"With this grant I hope to make a positive difference to the health of thousands of people. It's a privilege to be part of a team at the University and in the hospital doing good science with such positive intent."

Dr Pickering says rapid deterioration in kidney function affects about one third of all critically ill patients in intensive care units and drastically reduces their chance of survival.

Detecting this condition is very difficult and currently relies on measuring the build-up of a substance called "creatinine" in the blood, he says.

It takes one to three days for this build-up to be detected. This delays treatment (often dialysis) and has made development of new treatments very difficult.

Adding to the challenge is the normal intensive care practice of giving fluids through an intravenous drip, which dilutes the creatinine concentration.

Dr Pickering is developing a mathematical model to predict creatinine concentration and will test the model on patients in Christchurch Hospital.

He says the ultimate goal of the Christchurch Kidney Research Group is to develop new ways of detecting and treating acute kidney injury to save lives.

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