

The RENAL Study > an NHMRC funded collaboration of the ANZICS* Clinical Trials Group and The George Institute for International Health

*The Australian and New Zealand Intensive Care Society



Reducing Mortality from Kidney Failure

A MAJOR THERAPEUTIC CHALLENGE

Acute Renal Failure (ARF) is one of the biggest therapeutic challenges in acute medicine worldwide. Its effects can be severe and have serious implications for both patient survival and treatment. ARF increases a patient's risk of death four-fold, contributing to an in-hospital mortality rate of three deaths for every five patients afflicted. It significantly complicates patient management, resulting in lengthy stays in Intensive Care Units (ICU) and hospitals. In one in seven cases, the condition results in the need for chronic kidney dialysis. In Australia, ARF affects approximately 3,000 ICU patients each year, and five per cent of all ICU patients have or develop acute renal failure. Nationally, ARF is associated with approximately 1,800 deaths per year.

OVERCOMING THE CHALLENGE

Previous evidence has suggested that using higher than normal doses of renal replacement therapy improves the survival of patients with kidney failure in ICU, and that the wider adoption of higher doses could save a considerable number of lives. This augmented dosing treatment has not been widely adopted anywhere in the world, but if similar improvements to patient survival were to be demonstrated by the RENAL study, then augmented dosing renal replacement therapy could likely become the standard of treatment in many more countries. It is estimated that, through this treatment, 250-300 Australian lives could be saved per year, with potentially 15,000 lives saved globally.

THE APPROACH

The RENAL¹ Study is a multi-centre, unblinded, randomised, controlled trial of severe acute renal failure management with an augmented versus normal continuous renal replacement therapy (CRRT) regimen in ICU Patients. Candidate patients with acute renal failure are evaluated by the treating clinician as to their suitability for CRRT. With patient consent, the clinician treats the patient with CRRT for at least 72 hours. The study primarily measures the survival of patients at 28 and 90 days following admission to ICU.

The study aims to eventually involve around 1500 patients over a two-year period. Trials are to be conducted at over 30 sites in Australia and New Zealand. The first patients have now been recruited into the study, and results should be available by early in 2008.

RENAL STUDY MANAGEMENT COMMITTEE

Study Chair:

Prof. Rinaldo Bellomo, Austin Hospital, ANZICS CTG

Management Committee:

Dr. David Ali, Senior Project Manager,

The George Institute for International Health

Dr. Alan Cass, Head of Renal Program,

The George Institute for International Health

Dr. Louise Cole, Staff Specialist in Intensive Care, Nepean Hospital

A/Prof. Simon Finfer, Royal North Shore Hospital, Immediate Past chair ANZICS CTG

Dr. Martin Gallagher, Senior Research Fellow (Renal Medicine),

The George Institute for International Health

Donna Goldsmith, Research Coordinator, Austin Hospital

A/Prof John Myburgh, St. George Hospital, Chair, ANZICS CTG

Prof. Robyn Norton, Principal Director of The George Institute for International Health

A/Prof. Carlos Scheinkestel, Director of Intensive Care, Alfred Hospital

FUNDING AGENCIES

National Health and Medical Research Council (NHMRC)

Gambro Pty Ltd

Bard Pty Ltd

¹RENAL: Randomised Evaluation of Normal versus Augmented Level of renal replacement therapy in ICU

THE GEORGE INSTITUTE

The George Institute
 Level 10 King George V Building
 Royal Prince Alfred Hospital
 Missenden Road Camperdown
 Sydney NSW 2050 Australia

PO Box M201 Missenden Road
 Sydney NSW 2050 Australia

Telephone +61 2 9993 4500
 Facsimile +61 2 9993 4501

info@thegeorgeinstitute.org
 www.thegeorgeinstitute.org

ANZICS CTG

Australian and New Zealand Intensive Care Society
 Clinical Trials Group
 10 Levers Terrace
 Carlton VIC 3053 Australia

Telephone + 61 3 9340 3455
 Facsimile + 61 3 9340 3499

ctg@anzics.com.au
 www.anzics.com.au
 www.anzics.com.au/ctg/index.htm

Contact:
 A/Prof John Myburgh - Chairman
 Ms Tracey Higlett - Research Manager