



TheAlfred



Website: www.alfredicu.org.au

*Associate Professor
Carlos Scheinkestel
in the new state-of-
the-art 45 bed ICU at
The Alfred, opened in
November 2008.*



INTENSIVE CARE

Director: Associate Professor Carlos Scheinkestel MBBS, FRACP, FJFICM

Deputy Director & Head of Research: Professor Jamie Cooper BMBS, MD, FRACP, FJFICM

In 2008, the Intensive Care Unit continued its strong research program. The Alfred ICU is now regarded as one of the most successful research departments in critical care research in Australia. Research has continued on a number of themes built up over many years in collaboration with several important research organisations, including the Australian and New Zealand Intensive Care Society Clinical Trials Group (ANZICS CTG), the National Trauma Research Institute (NTRI) and the Australian and New Zealand Intensive Care Research Centre (ANZIC-RC).

In 2008, Intensive Care Unit researchers were awarded NHMRC funding for two new studies in traumatic brain injury (POLAR and EPO) for \$1.96 million and \$1.85 million respectively. The POLAR study (led by Professor Cooper and Associate Professor Bernard in association with Dr Nichol and Professor Peter Cameron) will investigate the early use of induced hypothermia to improve outcomes, and the EPO study (led by Professor Cooper and Dr Nichol) will investigate the use of erythropoietin to improve outcomes in traumatic brain injury patients.

The enthusiastic and hard-working ICU research coordination team continued to successfully enrol patients into several clinical trials. This team included Lynne Murray, Shirley Vallance, Cindy Weatherburn, Siouzy Morrison, Rachael Nevill and is supported by Lucinda Gabriel.

RESEARCH ACTIVITIES

Professor Jamie Cooper continued to lead (with Professor Jeffrey Rosenfeld) the DECRA trial, an international randomised trial of decompressive surgery for severe traumatic brain injury, which is within 12 months of completion. He also leads the SAFE-TBI II study, searching for mechanisms behind improved mortality with saline compared to albumin for resuscitation in traumatic brain injury (TBI) patients, and the Australian effort on the PROTECT study, which is comparing unfractionated and low molecular weight heparins in a large Canadian-led international study of critically ill patients.

With Ruwan Wijemunige, Professor Cooper is investigating BIS monitoring in TBI patients, and testing CO₂ titration to improve brain oxygen concentrations. He is also principal investigator on the national STATINS (investigation of statin therapy) and ARISE (investigation of early goal-directed therapy) randomised trials in patients with severe sepsis.

Associate Professor Carlos Scheinkestel was a Steering and Management Committee member of the highly successful RENAL study (completed in late 2008), which randomised over 1,500 patients.

Dr Andrew Davies continued to lead the multicentre ENTERIC randomised trial, testing small bowel feeding versus gastric feeding in ICU patients. He

also ran a nationwide observational study on feeding strategies in patients with pancreatitis and is gradually developing a critical care nutrition research program in collaboration with the ANZIC-RC.

Associate Professor David Tuxen, Dr Alistair Nichol and Carol Hodgson have continued their randomised, controlled trial of an improved method of lung recruitment in patients with acute respiratory distress syndrome (ARDS), the PHARLAP study.

Associate Professor Stephen Bernard has continued his pre-hospital research program. Recently he completed studies on pre-hospital intubation in severe head injury (RSI trial) and on improved methods of cooling post-cardiac arrest patients pre-hospital (RICH trial) and has moved on to co-lead (with Professor Cooper) a significant study into hypothermia (both pre- and then in-hospital) for patients with traumatic brain injury.

Associate Professor Warwick Butt has continued to lead a prolific and diverse research program in both paediatric and adult critical care.

Dr Vincent Pellegrino has been analysing results of the multicentre NAVIGATOR trial testing an improved monitoring and haemodynamic management system for acute cardiothoracic ICU patients. He has continued to further establish the growing clinical extracorporeal membrane oxygenation (ECMO) program, which has included the establishment of an international symposium on the use of the ventricular assist device (VAD) and ECMO therapies.

Dr David Pilcher has continued to study ICU outcomes using the bi-national ICU database, particularly in regard to ICU discharge patterns and survival.

Dr Megan Robertson ran a pilot study in understanding whether heparin has an effect as an intervention in patients with septic shock, and has contributed to several other department research projects.

Dr Andrew Hilton has expanded the ICU echocardiography program and has continued investigating cardiac abnormalities in patients with brain injury and lecturing at meetings on echocardiography. Dr Tim Leong has continued his work in infection control and central line associated blood stream infections and Dr Deirdre Murphy has taken over from Associate Professor Bob Salamonsen in developing skills in artificial heart technology.

Dr Silvana Marasco (cardiothoracic surgeon) continues to lead a randomised trial of surgical rib fixation patients with Professor Cooper and Dr Davies.

Continued on page 45