

Report of ANZICS Paediatric Study Group (PSG) December 2006

It is now three-and-a-half years since the ANZICS PSG was formed. We are a group representing all Paediatric Intensive Care Units (PICUs) in Australia and New Zealand, and are closely allied to the ANZICS Clinical Trials Group (CTG) which endorses studies and trials which we perform. The PSG steering committee comprises one medical representative of each service (Perth, Queensland PIC service-Brisbane, Mater Children's-Brisbane, Adelaide, New Zealand, Melbourne, Sydney Children's Hospital and Children's Hospital at Westmead-Sydney, as well as two nurse researchers representing nursing interests across the whole group, and a nursing and medical representative of the Australia and New Zealand Paediatric Intensive Care Registry (ANZPICR). The PSG has had two open meetings and two steering committee meetings at the CTG Noosa meeting and at the Hobart ANZICS ASM, and the steering committee has held three telephone conferences.

The following studies have been completed:

1. Glycaemic control and management. This two month prospective survey of blood glucose measurements and hyperglycaemia management in 400 patients was reported last year. It has now been submitted to Pediatric Critical Care Medicine for publication.
2. Acute Lung Injury study. A 12 month prospective observational study of ALI and ARDS was reported last year. It has now been accepted for publication in Pediatric Critical Care Medicine.
3. A study of the management and outcomes of children admitted to adult ICUs is now being prepared for publication.
4. A paper on CUSUM analysis of sequential deaths in individual ICUs is also being prepared.

Two randomised clinical trials have been approved and funded:

1. A one-year pilot study of early and prolonged hypothermia in severe traumatic brain injury in children (HiTBIC) has commenced in December 2006 in all 8 PICUs. This has been funded by a \$100,000 grant from the ANZIC Foundation. It is hoped that it will lead to a definitive full trial, possibly with international collaboration.
2. A trial of Aminophylline in Bronchiolitis is waiting to commence in the next bronchiolitis season in the 2007 winter, the outcome measure being duration of ventilatory support and PICU length of stay. It has also been funded by the ANZIC Foundation (\$25,000).

The PSG is also looking at possible studies nutrition in PICU.

Some PICUs are collaborating with a US pilot study of the management of bone marrow transplant patients. Some PICUs are collaborating with a US pilot study of the cooling after cardiac arrest. Hopefully there will be wider collaboration between PSG and these overseas centres with a definitive study in these two areas.

A new initiative of the PSG is that we have organised a one-day meeting to discuss international collaboration, at the 5th World Congress on Paediatric Critical Care in Geneva in June 2007. This is receiving a lot of interest and we hope that it will lead to improved collaboration with other countries, especially as some paediatric critical care trials (including HiTBIC above) would take too long to recruit patients in A&NZ.

Dr Barry Wilkins, Chairperson, PSG