



January 2009 Newsletter - Special edition

Paediatric emergency care

In this month's newsletter we are featuring the work of PREDICT (Paediatric Research in Emergency Department International Collaborative).



The **PREDICT** research network was established in 2004 to improve emergency care for children through rigorous multi-centre research.

To date, 13 hospitals (including 4 mixed adult/paediatric hospitals) in Australia and New Zealand have combined their efforts in a range of paediatric emergency medicine research projects.

- More information on PREDICT www.pems.org.au
- PREDICT contact: Dr Jason Acworth, Paediatric Emergency Physician, Royal Children's Hospital (Brisbane). Email: jason_acworth@health.qld.gov.au

Related article: Babl F, Borland M, Ngo P et al. Paediatric Research in Emergency Departments International Collaborative (PREDICT): first steps towards the development of an Australian and New Zealand research network. *Emergency Medicine Australasia*. 2007 April 19(2):143-7 ([link to abstract](#))

Current PREDICT activity

PREDICT has completed a number of baseline studies addressing key aspects of paediatric emergency care. Each study has a lead researcher from the group and draws on a team effort and expertise found within the group. These studies have identified important evidence gaps or variations in care that will become the focus of future PREDICT studies.

- Asthma - which IV bronchodilator should be used first?
- Croup - what is the role of steroids in mild croup?
- Gastroenteritis - what is the role of ondansetron in gastroenteritis?
- Status epilepticus - what is the best medication for second line management and when should intubation occur?
- Bronchiolitis - should we hydrate via the nasogastric or the IV route?
- Clinical practice guidelines - development of collaborative clinical practice guidelines with evaluation of implementation and impact of implementation
- Sedation - is it feasible / useful to establishing a sedation registry?
- Basic epidemiology - can we combine prospective data for epidemiological research on an ongoing basis?
- Coding - how valid is coding by doctors?

Based on the findings of these initial studies, a number of prospective studies have commenced or are in the planning stages. In particular PREDICT has received a NHMRC project grant (\$850,000) for a multi-centre multi-year randomised controlled trial to determine the optimal method of rehydration in infants with bronchiolitis (nasogastric vs intravenous). The lead researcher is Dr Ed Oakley, Monash Medical Centre, Melbourne; additional participating sites include Princess Margaret Hospital, Perth, Royal Children's Hospital, Brisbane; Kidzfirst Middlemore Hospital, Auckland, NZ; Sunshine Hospital and Royal Children's Hospital, Melbourne.

PREDICT collaboration with NICS

NICS has enjoyed a partnership with PREDICT in recent years with the emergency care pain initiative. PREDICT has analysed data from a national audit of pain management policy and clinical practice from 13 Australian paediatric EDs.

- [Key findings and more information on the pain management initiative](#)

Articles of interest

Borland M, Babl FE, Sheriff N
Croup Management in Australia and New Zealand: A PREDICT Study. *Pediatric Emergency Care*. 2008; 24:452-6 [LINK](#)

Schutz J, Babl FE, Sheriff N, Borland M; A PREDICT Study. Emergency department management of gastroenteritis in Australia and New Zealand. *Journal of Paediatrics and Child Health*. 2008; 44:560-563 [LINK](#)

Babl FE, Sherrif N, Borland M et al. Paediatric Acute Asthma Management in Australia and New Zealand: Practice Patterns. *Arch Disease Child* 2008; 93: 307-312 [LINK](#)

Babl FE, Sherrif N, Borland M et al. Bronchiolitis Management in Pediatric Emergency Departments in Australia and New Zealand: A PREDICT Study. *Pediatric Emergency Care*. 2008; 24:656-658 [LINK](#)

Talk to the experts

Our first teleconference for 2009 is in February with Dr Stuart Lewena from the Royal Children's Hospital (Melbourne). Stuart will be discussing ED management of Status Epilepticus

Teleconference details:

Guest speaker: Stuart Lewena

Topic: Paediatric Status

Epilepticus: current ED

management

Date: Wednesday February 18

Time: 3.00pm - 4.00pm AEDT

Phone: 1800 200 232 and

enter PIN: 011363 at the prompt.

Related article: 2008 Cochrane Review of Paediatric Status Epilepticus Drug Management [LINK](#)

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