Compiled by
A/Prof David Taylor
Director of Emergency and General Medicine Research
Without question, 2009 was our most active and productive research year to date. As our patient census continued to increase, so did our research activity. In all areas, we exceeded earlier achievements and broke new ground in other areas of research as well. It is clear that our department is developing a reputation within the Australasian College for Emergency Medicine (ACEM), and elsewhere, as a leader in emergency medicine research.

We extend our congratulations to Drs Anselm Wong, Mark Rugless, Kirsty Jackson, Peter Cheng and Saad Al-Noaman all of whom successfully completed their Regulation 4.10 training requirements in 2009. This involved presentation of their original research projects at an ACEM national or regional conference.

Congratulations are also extended to Simone Taylor and Andrew Harding, two of our ED pharmacists. As well as actively contributing to other research activities, both successfully completed the Pharmacist Independent Prescribers’ course offered by the Robert Gordon University, Aberdeen, Scotland.

Our staff were fortunate to win three research prizes during 2009. Esther Chan, formerly our ED pharmacist and now Research Fellow, won the 2009 DBL Young Pharmacists Award from the Society of Hospital Pharmacists of Australia. Jo Richardson and I won the 2009 John Gilroy Potts Award for the most significant publication by an ACEM Fellow. I also won the Best Paper presented by a Fellow at the ACEM Annual Scientific Meeting.

Our Advanced Medical Science (AMS) student research program continued to do well. Each of our 2008 students published their work and our 2009 students have their research under peer review at the moment. Last year, Charles Xie investigated the differing bacteriology and antibiotic sensitivity of nursing home and general community residents. Jeremy Kam investigated the effect of obesity on the difficulty of managing emergency department patients. Dean Page continued our department’s interest in vapocoolant spray and undertook a randomised trial comparing vapocoolant directly with subcutaneous lignocaine to reduce the pain of intravenous cannulation.

It is pleasing to note that the three AMS students who began with us in 2009 have interesting projects that are progressing well. John Chae is running a randomised trial comparing the efficacy of metoclopramide and tropisetrin for nausea and vomiting. Kathy Jao is running two pre- and post-intervention studies evaluating both adult and paediatric nurse-initiated analgesia programs. Munad Khan is examining the effect of complementary medicines on the INR stability of patients taking warfarin.

The great majority of our research activity is undertaken on a shoestring budget. Last year, however, we were successful in being awarded a number of grants that are described below. The most important was an NHMRC grant to support our ‘Code Grey’ collaborative research into sedation of the acutely agitated patient. No doubt this funding will afford us some breathing space as we look forward to other projects. Meanwhile, this large randomised trial is progressing well at its three sites (Austin, RMH, St V’s)
Last year saw the completion of the ‘Emergency Department Procedural Sedation’ study, a national collaborative of 11 emergency departments run by the Austin. Although a lot of hard work, this project was immensely successful and took out a top award at the ACEM national conference last November. Presently we are working on three major papers for publication.

While our success last year is very pleasing, it is likely that our activity will plateau in the near future as a result of resource limitations. Herein lies the next challenge. We need to explore all possibilities that will allow us to consolidate and expand. These extend beyond grant funding and may include Fellowship programs, dedicated registrar research positions, and expansion of collaborations both within and outside of the Austin.

Finally, I would like to congratulate those staff who have had successful research endeavours during 2009 and thank those who assisted and facilitated this good work.

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RESEARCH ARTICLES

Articles Published:


Chan EW, Taylor SE, Marriott JL, Barger B. Bringing patients' own medications into an Emergency Department by ambulance: effect on prescribing accuracy when these patients are admitted to hospital. *MJA* 2009; 191: 374-7


Taylor DMcD, Robinson J, MacLeod D, MacBean CE, Braitberg G. Therapeutic errors involving adults in the community setting: nature, causes and outcomes. *Aust NZ J Pub Health* 2009; 33: 388-394


Taylor DMcD, Robinson J, MacLeod D, MacBean CE, Braitberg G. Therapeutic errors among children in the community setting: nature, causes and outcomes. *J Paed Child Health* 2009; 45: 304-309


Yeoh M. ‘From other journals’

**Articles accepted for publication (In press):**


**Articles undergoing peer review**

Kam J, Taylor DMcD. The effects of obesity in increasing the difficulty of patient management in the Emergency Department Submitted to *Annals Emerg Med* February 3, 2010

Page DE, Taylor DMcD. Vapocoolant spray versus subcutaneous lidocaine injection for reducing the pain of intravenous cannulation: a randomized, controlled, clinical trial. Submitted to *JAMA* February 3, 2010
Xie C, Taylor DMcD, Howden BP, Charles PGP. Comparison of the bacterial isolates and antibiotic resistance patterns of elderly nursing home and general community patients. Submitted to *Clin Microbiol Infect* February 2, 2010


CONFERENCE/SEMINAR ORAL PRESENTATIONS

Simon Judkins
‘Emergency Care : 3-2-1. Improving Emergency Department Patient Flow at Austin Health’ Redesigning Health Care Summit. September 2009

Michael Yeoh
NICS Evidence into Action workshop.
Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

Simone Taylor


‘General practitioner referral letters - is the medication regimen accurate or not?’ Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘Opioid tolerant patients: at risk for inadequate acute pain management.’
- NICS ED Pain Initiative Wave 2 Workshop, June 2009
- NICS Wave 1 Workshop, Dec 2009.


‘Implementing the inpatient medication chart in ED at Austin Health: All singing from the same hymn book’ Improving medication safety in emergency departments - DoH Emergency Care Clinical Network. Forum, 13 October 2009.

David Taylor
‘Overcoming the frustrations and barriers in Emergency Medicine research’ Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘Adverse events during procedural sedation in the Emergency Department’ Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘Topical alkane vapocoolant versus subcutaneous lignocaine injection for reducing the pain of intravenous cannulation: a randomised, controlled, clinical trial’ Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘Comparison of bacteria and antibiotic resistance of nursing home and community patients’. ACEM, Annual Scientific Meeting, Melbourne, November 2009
CONFERENCE/SEMINAR POSTER PRESENTATIONS

‘General practitioner referral letters - is the medication regimen accurate or not?’
  - Austin Health Research Week Poster

‘The use of acupuncture as an adjunct to conventional treatment in the emergency department.’ Smit D, Taylor DMcD, Cameron PA
Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘The introduction of an acupuncture program in an Australian emergency department.’ Smit D, Taylor DMcD, Cameron PA
Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘A comparison of four methods for detecting occult hypoperfusion in trauma patients.’ Thom O, Taylor DMcD, Wolfe RE
Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

‘Failure to successfully complete a procedure following Emergency Department sedation.’ Taylor DMcD for the Emergency Department Sedation Study Investigators
  - Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009
  - Austin Health Research Week, October 2009

‘The effects of obesity on patient management in the emergency department.’
Kam J, Taylor DMcD
  - Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009
  - Austin Health Research Week, October 2009

‘Pilot project of procedural sedation in the Emergency Department: Is patient satisfaction adequate?’ Ghosh A, Taylor DMcD.
  - Austin Health Research Week, October 2009
  - Australasian College for Emergency Medicine, Autumn Symposium, Gold Coast, QLD. April 2009

Topical alkane vapocoolant versus subcutaneous lignocaine injection for reducing the pain of intravenous cannulation: a randomised, controlled, clinical trial
Page D, Taylor DMcD
  - Austin Health Research Week, October 2009

Comparison of bacteria and antibiotic resistance of nursing home and community patients
Xie C, Taylor DMcD, Howden BP, Charles PGP
  - Austin Health Research Week, October 2009
Emergency Department Abdominal Radiographs: Utility in the Emergency Department.
Jackson K, Taylor DMcD, Judkins S
- Austin Health Research Week, October 2009

Adverse events during procedural sedation in the Emergency Department
- Austin Health Research Week, October 2009

The changing epidemiology of intentional antidepressant overdose in Victoria, Australia.
Wong A, Taylor DMcD, Ashby K, Robinson J.
- Austin Health Research Week, October 2009

‘Evaluation of the primary contact physiotherapy service in the emergency department.’ Crane J, DiNatale D, Taylor DMcD, Judkins S
- Austin Health Research Week, October 2009
- Australasian College for Emergency Medicine, Annual Scientific Meeting, Melbourne, November 2009

PRIZES

Esther Chan
2009 DBL Young Pharmacists Award
Awarded by the Society of Hospital Pharmacists of Australia
This prize supported 4 weeks of work experience in an emergency department in Tuscon, Arizona and a conference in the US.

David Taylor & Jo Richardson
The John Gilroy Potts Award 2009
Awarded for the most significant publication by a Fellow of the Australasian College for Emergency Medicine:

David Taylor
Best Paper by a Fellow of the Australasian College for Emergency Medicine
ACEM Annual Scientific Meeting (Melbourne. Nov 2009)
Paper entitled: ‘Adverse events during procedural sedation in the Emergency Department’
RESEARCH FUNDING

‘Droperidol and olanzapine as adjuncts to midazolam for the acutely agitated patient: a randomised clinical trial’
$182,775 NHMRC (Project Grant 628501). November, 2009

‘A randomised controlled trial of non-invasive cardiac output monitoring in critically ill Emergency Department patients.’
$300,000 grant from the Queensland Emergency Medicine Research Foundation (QEMRF-PROJ-2009-018-GRANT). September, 2009

‘Investigating the current capabilities of the Victorian healthcare system to cope with pandemic outbreaks: A pilot study at the Austin Hospital emergency department’

$14,980 grant from the Royal Melbourne Institute of Technology College of Business. July 2009

‘Lateral versus anterior chest thrusts in the generation of airway pressure in anaesthetised dogs.’
$10,000 grant from the Australian Resuscitation Council. May, 2009

$1,000 prize, November 2009

The John Gilroy Potts Award 2009 for the best publication by a Fellow of the College
$1,550 from the Australasian College for Emergency Medicine. November, 2009
ONGOING RESEARCH PROJECTS

‘IV droperidol and olanzapine as adjuncts to midazolam for the acutely agitated patient in the emergence department: a multi-centre, randomized, double blind controlled trial.’
Chan E, Taylor D Mc D, Knott J, Georgina Phillips, Kong D, Castle D

‘Nature and outcomes of chemical eye injuries reported to the Victorian Poisons Information Centre’
Sher L, Taylor D Mc D, Robinson J, Browning J, Colbridge M, MacLeod D, McCracken H, McKenzie C

‘Fascia iliaca block versus femoral nerve block for femoral neck fractures in the Emergency Department: a randomized, clinical trial.’

‘The use and toxicity of Complementary and Alternative Medicines among Emergency Department patients taking warfarin’
Khan M, Taylor D Mc D, Taylor SE, Harding A, Chae J, Jao K

‘Evaluation of Nurse-initiated Pain Management for adults in the Emergency Department’
Jao K, Taylor D Mc D, Taylor SE

Evaluation of Nurse-initiated Pain Management for paediatrics in the Emergency Department’
Jao K, Taylor D Mc D, Taylor SE

‘Management of acute agitation in the Emergency Department: A national survey of practice.’
Chan E, Taylor D Mc D, Kong D, Knott J

‘Tropisetron versus metoclopramide for nausea and vomiting in the emergency department: a randomised, double blinded, clinical trial’
Chae J, Taylor D Mc D, Frauman A

‘Communication regarding the reasons for Emergency Department waiting times’
Taylor D Mc D, Kerr F, Jao K, Chae J, Khan M

‘Investigating the current capabilities of the Victorian healthcare system to cope with pandemic outbreaks: A pilot study at the Austin Hospital’
Cheong F, Cheong C, Corbitt B, Taylor D Mc D, Judkins S, Johnson P

‘The resource implications of vital signs monitoring in the Emergency Department’
Ferma M, Taylor D, Cochrane C, Petre I, Yeoh M

‘National Institute of Clinical Studies - Pain Management Initiative’ (to address a range of pain management issues in Emergency Departments)
Richardson J, Yeoh M
‘Call-back study investigating paediatric dog bite injury cases that occurred in the domestic setting’
Ashby K, Cassell E, Taylor DMcD

‘Evaluation of the Primary Contact Physiotherapy Service in the Emergency Department’
DiNatale D, Crane J, Taylor D, Judkins S

‘Emergency Department procedural sedation practices and factors associated with adverse events’
Taylor D for the ED sedation study investigators (a national collaborative)

‘Utility of abdominal Xrays among emergency department patients’
Sullivan K, Taylor DMcD, Judkins S.

‘The epidemiology of absenteeism among public hospital staff’
Rugless M, Taylor DMcD.

‘Evaluation of ED medical, nursing and allied health staff attitudes towards the use of complementary medicines’
Taylor SE, Welch S, Barbour L, Ainsworth J.

‘Patient transfer from hospital to Aged Care facilities: Common medication problems and possible solutions.’
Taylor SE, Chu M, Tanner F

CURRENT COLLABORATIONS WITH EXTERNAL INSTITUTIONS

- University of Melbourne
- Monash University
- La Trobe University
- RMIT University
- Diver Alert Network (Asia-Pacific)
- Royal Melbourne Hospital
- St Vincent’s Hospital
- Box Hill Hospital
- Alfred Hospital
- Casey Hospital
- The Northern Hospital
- Epworth Hospital
- Liverpool Hospital (NSW)
- Royal Brisbane and Women’s Hospital (QLD)
- Redcliffe Hospital (QLD)
- Prince Charles Hospital (QLD)