



The Australian Patient Safety Foundation

Annual Report 2008-2009

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Introduction

The Australian Patient Safety Foundation (APSF) is a not-for-profit research group dedicated to the advancement of patient safety. The APSF has provided leadership in the reduction of harm to patients in all health care environments since 1988. Based in Adelaide, South Australia, the APSF works with Commonwealth and State governments, researchers, professional organisations, healthcare professionals and consumers at the national and international level to improve outcomes for patients.

In 2008-09, the APSF has continued to 'punch above its weight' in its contributions to improving the safety of healthcare. The highlights for the financial year include: a successful international collaboration on an Australian Commission on Safety and Quality in Health Care-funded project titled 'Learning from patient safety incidents - clinical handover and patient identification'; completion of the evaluation of TeamSTEPPS (a structured communication and teamwork package) implemented by the South Australian Department of Health; continued involvement in the World Health Organization Patient Safety Program; representation on the United States' National Quality Forum – Common Formats Experts Panel; and hosting of a Think Tank on 'Humans and Complex Systems: the good, the bad and the ugly' with the Human Factors and Safety Management Systems group at University of South Australia. The APSF has continued to publish its research activities in national and international peer-reviewed journals.

In 2008-09, the work of the APSF has focused on core objectives of the Foundation as outlined in the APSF Constitution, namely

- i. Promoting and developing research and education in various branches of patient safety or related field.
- ii. To promote, organize and co-ordinate incident reporting and critical incident reporting studies.
- iii. To offer services relating to patient safety and the methods by which it may be achieved.
- iv. To act as a clearing house for the acquisition, storage, processing, retrieval, analysis and dissemination of information relating to patient safety.

This report focuses on the activities and achievements of the APSF with regards to these core objects in the year 2008-09.

(i) Research and education

The APSF has traditionally played a role in the training of undergraduate and postgraduate training of South Australian healthcare professionals in patient safety. This year, presentations were given at all three South Australian Universities (University of Adelaide, Flinders University and University of South Australia) to a range of students, including nursing, medicine and human factors.

Postgraduate supervision has been provided to a number of students undertaking Higher Degrees. Highlights include completions by two students:

- Eileen Petrie, PhD University of Adelaide – Action research in preventing workplace burnout in rural remote community mental health nursing.
- Rie Konno, PhD University of Adelaide - Lived experience of overseas qualified nurses from a non-English speaking background.

Ongoing students, and their degrees and study topics include:

- Caroline Lee, PhD University of Adelaide - Role of the gerontological nurse practitioner in Australia
- Dr Neil Jones, PhD University of South Australia - Quality improvement of the imaging cycle in the emergency department with a focus on communication, and reviewing of imaging test results: a mixed methods approach
- Dr M Edmonds, PhD University of Adelaide – A decision support system for pre-operative screening

Professor Runciman, in particular, has conducted numerous key-note addresses and presentations on the topic of patient safety, incident reporting, classification of healthcare incidents, medico-legal implications of reporting, and the quality of healthcare. A summary of some of the presentations given over the last year is included below.

Date	Location	Event	Title
20.10.2008	Copenhagen	ISQua Conference	The Epistemology of Pa Safety Research
20.10.08	Copenhagen	ISQua Conference	The Evolution of the Ontology of Pa Safety
27.10.08	Abu Dhabi	Medical Congress	CTEP
26.10.08	Abu Dhabi	Medical Congress	Pa Safety Basic Concepts
12.12.08	Melbourne	Patient Safety Think Tank	“Organisational Responsibility and Patient Safety.”
12.02.09	Barossa Valley	Joanna Briggs Institute Members Day	JBI Members Survey results
3.3.09	Sydney	Human Factors in healthcare symposium	“Knowledge, attitudes and behaviour”
5.3.09	Adelaide	Think tank, the good, the bad and the ugly	“Ten types of error”
27.3.09	Sydney	Australian Commission	“An ontology for patient safety”
2.4.09	Melbourne	IIR Adverse Events Conference	“The good , the bad and the ugly”
11.5.09	London	National Patient Safety Agency	AusHealth Review Project

Relevant research articles and reports published in the year 2008-09 include:

Braithwaite J, Runciman WB, Merry AF. Towards safer, better healthcare: harnessing the natural properties of complex sociotechnical systems. *Qual Saf Health Care* 2009;18: 37-41.

Hannaford N, Jones N, Mandel C, Schultz T. 2009. Radiology Adverse Events Register. Final Report. Unpublished report to Quality Use in Diagnostic Imaging (QUDI) program, Royal Australian and New Zealand College of Radiology.

- Runciman WB, Baker R, Michel P, Larizgoitia I, Lilford RJ, Andermann A, Flin R, Weeks WB 2008 .The epistemology of patient safety research. *International Journal for Evidence based Healthcare* 2008, 6: 476-486
- Runciman WB, Hibbert P, Thomson R, et al. 2009 Towards an International Classification for Patient Safety: key concepts and terms. *International Journal for Quality in Healthcare* 2009; Vol 21 1: 18-26
- Stead K, Kumar S, Schultz T, Tiver S, Pirone C, Adams R, Wareham C. 2009. Teams communicating through STEPPS. *MJA* 190 (11): S128-S132
- Schultz T, Hannaford N, Hibbert P. 2008. TeamSTEPPS non-observational evaluation. Unpublished report to SA Department of Health. APSF: Adelaide.
- Schultz T, Hannaford N, Runciman B, Thomas M, Michael S, Magrabi F and Coiera E. 2009. Improving learning from patient safety incidents: patient identification and clinical handover. Unpublished reports (x 3) for Australian Commission on Safety and Quality in Health Care.
- Sherman H, Castro G, Runciman WB, et al. 2009. Towards an International Classification for Patient Safety: the conceptual framework. *International Journal for Quality in Healthcare* 21: 2-8.
- Thomson R, Lewalle P, Runciman WB et al. 2009. Towards an International Classification for Patient Safety: a Delphi survey. *International Journal for Quality in Healthcare* 21: 9-17.
- Vergios W, Chen T, McLachlan A, Runciman WB, Fois R. QUMwatch: a community pharmacy-based incident reporting system to improve medication safety and quality use. Sydney: Faculty of Pharmacy, University of Sydney, 2008
- Williamson JAH, Runciman WB. 2008 Thinking in a crisis: Use of algorithms. In: Croskerry P, Cosby KS, Schenkel SM, Wears R, eds. *Patient Safety in Emergency Medicine*. Philadelphia: Lippincott, Williams, Wilkins. 2008: 228-34.

(ii) Incident reporting

The APSF continued to offer technical and analytical support to national and international users of the AIMS software. There are three main AIMS databases that are currently being managed by the APSF: the Radiology Events Register (RaER), a database of anaesthetic incidents and a database of coronial findings. These are discussed here.

Radiology Events Register (RaER)

The Radiology Events Register (RaER) project, which commenced in 2006, continued in 2008-09. The project involved a collaboration between the Quality Use of Diagnostic Imaging Program of the Royal Australian and New Zealand College of Radiology and led to the successful introduction of an incident reporting system in Radiology, a world first. The report for the work conducted during the financial year is available from the RaER website <<http://www.raer.org/>>. Some of the key findings from the project were:

- There are almost 750 radiology adverse events, incidents and near misses that have been entered, classified and collectively analysed in the RaER database.
- Two thirds of the incidents (66%) contained in the database were sourced through Radiologists accessing and entering incidents via the dedicated website.
- Nearly all of the incidents reported were from a public setting (97%).

- Inpatients were involved in the majority of the incidents (57%), with outpatients being involved in almost one third (28%).
- The most prevalent principal incident type identified was clinical management (72%). These incidents involve the clinical management of the patient. Documentation incidents were the next most common (7%).
- CT scan (28%) and X-Ray (27%) were the most common modalities reported as being involved in the incidents.
- The radiological stage where the incident occurred was most commonly during image interpretation (36%) and during a request for consultation (23%). It was found that an error was commonly detected during patient preparation (31%) or during the technical performance of the procedure (24%). The information contained in the narratives however did not always provide sufficient detail to classify this information.
- Problems with the performance of tests and investigations were the key problems identified, namely a failure or delay in detecting a problem (28%), or a failure to synthesise or act on available information (15%). There were also problems identified with ordering and choosing tests, namely tests that were ordered for the wrong patient (27%).

Anaesthetic database

The reporting of incidents to the APSF by anaesthetists has occurred on an *ad hoc* basis following a number of targeted projects involving anaesthetists and the APSF in the 1990s and early 2000s. In 2008-09, the APSF continued to receive incidents from anaesthesia and employed an anaesthetic nurse (Ms Yvonne Harvey) to classify these incidents and a backlog of previously provided incidents. However, during this time, the number of incidents being received reduced dramatically, and with the backlog of incidents fully classified, the classification of anaesthetic incidents ceased late in the financial year. There are currently over 10,000 incidents in the AIMS anaesthetic database.

Coroners database

The APSF has also maintained a database of coroner's reports classified into AIMS. Ms Jo Zwar was employed at 0.20 FTE to classify incidents sourced from the National Coroners Information System (NCIS). In June 2009, classification of the incidents was completed, and there are currently over 300 incidents in the database.. An analysis of the first 100 incidents was completed in 2008 and plans to compare this data with incidents from other sources such as medical record and medico legal files is being contemplated.

(iii) Services related to patient safety

The APSF has provided consultancy services throughout 2008-09. The two largest projects have involved the completion of two consultancies: the evaluation of TeamSTEPPS for the South Australian Department of Health, and leading a project team consulting to the Australian Commission on Safety and Quality in Health Care on improving learnings from patient safety incidents.

TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) is an evidence based teamwork training system developed by the US Department of Defence Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality that contributes to effective team performance and safe care. The project involved training health care staff in the knowledge, skills and attitudes that contribute to effective

teams, improved communication and enhanced clinical outcomes. The objective was to improve team performance by embedding in practice four key areas of the TeamSTEPPS framework. TeamSTEPPS was implemented in five sites in South Australia and the APSF evaluation involved a mixed methods approach combining quantitative and qualitative techniques. The final report was lodged in late 2008 (Schultz, Hannaford and Hibbert 2008) and has since resulted in one published research article (Stead, Kumar and Schultz et al 2009).

The 'Improving learning from patient safety incidents' project involved a collaboration between the APSF (lead), Human Factors and Safety Management Systems Group at UniSA, the Centre for Health Informatics at UNSW, Communio, the Joanna Briggs Institute, and two international consultants Professor Richard Thomson from University of Newcastle and Dr Jim Bagian from Veterans Affairs National Center for Patient Safety. The project was completed in April 2009, resulting in unpublished reports to the funder (Schultz, Hannaford, Runciman et al 2009). The findings from this work will be used as the basis for future research work on incident monitoring.

The APSF conducted a consultancy for the SA DoH to complete analysis of data for their Patient Safety Report 2006-07.

(iv) Clearing house for patient safety information

The APSF website (www.apsf.net.au) provides citations and links to patient safety research papers published by APSF staff. The website includes 'News', 'Contact details', 'Articles and Resources' and 'Newsletters'. In the past, newsletters have been prepared by Patient Safety International, the commercial subsidiary of the APSF. However, newsletters were discontinued during this financial year due to changes in the structure of Patient Safety International.

This year the APSF sold 80 crisis management manuals in a range of countries including: Australia, New Zealand, Belgium, Switzerland, UK, Canada and the US.

Think Tank: Humans and Complex Systems: the good, the bad and the ugly

The APSF and Human Factors and Safety Management Systems jointly hosted a Think Tank titled "Humans and complex systems: the good, the bad and the ugly" in Adelaide on 5-6th March 2008. The event was attended by over 70 participants, and featured key addresses from John Senders and other leaders in the field.

Professor John Senders "*History of Error*"

Professor Bill Runciman "*Ten types of error – a paleontological/ontological approach*"

Associate Professor Brendan Flanagan "*Education and patient safety*"

Professor John Senders "*Science of Error*"

Professor Joanna Westbrook "*Interruption errors / medication errors*"

Dr Matthew Thomas "*Error detection and error tolerance of systems*"

Professor Chris Baggoley "*Achieving sustainable change from a national level - successes and challenges*"

Professor Enrico Coiera "*Decision support systems and machine learning*"

Topic 7 Evaluation

APSF staff were involved in the evaluation of a project looking at improving the experience of older people in the acute setting, which was based at Royal Adelaide Hospital. The lead of this project was Professor Alison Kitson, Head and Professor of Discipline of Nursing, University of Adelaide.

APSF Council

In financial year 2008-09, Professor Jeffrey Braithwaite, Foundation Professor and Director of the Australian Institute of Health Innovation and Professor and Director of the Centre for Clinical Governance Research in Faculty of Medicine, University of New South Wales joined the APSF Council and was elected Chairman.

Dr Philip Robinson also joined the Council.

Other changes in the make-up of the Council included resignations from:

- Mrs Margaret Charlton, Consumers’ Health Forum
- Mr Ray Clark, Treasurer
- Ms Stephanie Newell, Consumer’s Health Forum

All Council members are thanked for their contribution to the APSF; in particular, Margaret Charlton who served on the Council over very many years.

Council member	Position
Prof Bill Runciman	APSF President (Professor, Patient Safety & Healthcare Human Factors, School of Psychology, Social Work & Social Policy, University of South Australia; Joanna Briggs Institute, Royal Adelaide Hospital; Visiting Professor, Australian Institute of Health Innovation, UNSW)
Prof Jeffrey Braithwaite	APSF Chairman (Foundation Professor & Director, Australian Institute of Health Innovation, Centre for Clinical Governance Research, Faculty of Medicine, UNSW)
Prof Guy Maddern	APSF Vice-President (Royal Australasian College of Surgeons, RP Jepson Professor of Surgery, University of Adelaide, Head of Division of Surgery and Director of Basil Hetzel Institute)
Dr David Tye	APSF Treasurer (Royal Australian College of General Practitioners)
A/Prof James Harrison	ordinary member (Director, Research Centre for Injury Studies, Flinders University)
Dr Sue Johanson	ordinary member (Australian College of Emergency Medicine)
Dr Neil Maycock	ordinary member (Australian and New Zealand College of Anaesthetists)

Dr Matthew Thomas	ordinary member (Program Director, Human Factors and Safety Management Systems, University of South Australia)
Ms Tracey Hutt	ordinary member (Healthcare Management Advisors)
Dr Philip Robinson	ordinary member (Executive Director, Clinical Governance, Education & Research; Children, Youth and Women's Health Service, SA Department of Health)

APSF Shareholding in Patient Safety International

In May 2009, the APSF's 69% shareholding in Patient Safety International was transferred to Balak Park Pty Ltd, a long-time investor in Patient Safety International. The current licence agreement between APSF and Patient Safety International continues to stand; it is envisaged that the two groups will continue to collaborate on projects related to the AIMS classification, incident reporting systems and patient safety data as they have in the past 5-6 years.

Staffing

APSF staffing levels ranged between 3 and 4 FTE during the year. In addition to staff conducting classification for the Coroners' and Anaesthetic incident databases, APSF staff were:

- Dr Tim Schultz, BA BSc(Hons) GradDip (PublHlth) PhD, Technical Director
- Ms Natalie Hannaford, RN Dip Applied Science (Nursing), Senior Analyst
- Dr Klee Benveniste, BA DipAppPsyc PhD MAPS, Research Fellow
- Ms Kaye Dolman, Personal Assistant
- Ms Renae Priestley, Personal Assistant

Awards and achievements

In October, Professor Runciman was awarded the Sidney Sax Medal for 2008 by the Australian Healthcare and Hospitals Association. The Sidney Sax Medal is awarded annually to an individual, active in the health services field, who has made an outstanding contribution in the field of health services policy, organisation, delivery and research.

Professor Runciman, and four other researchers from the University of New South Wales and University of Sydney: Jeffrey Braithwaite, Johanna Westbrook, Enrico Coiera, Rick Day were successful in obtaining funding for an NHMRC Program Grant worth \$8.4m over 5 years between the five researchers. The APSF will provide technical and research support for this project as required.