



The Australian Patient Safety Foundation

Annual Report 2009-2010

Contents

Introduction	1
(i) Research and education	1
(ii) Incident reporting	3
Radiology Events Register (RaER)	3
Anaesthetic database	4
Coroners database	5
(iii) Services related to patient safety	5
World Health Organization - Patient Safety	5
(iv) Clearing house for patient safety information	5
APSF Council	6
APSF Planning Day	6
Aims of APSF	7
Staffing	7
Relationships	8

Introduction

The Australian Patient Safety Foundation Inc. (APSF) is a non-profit independent organisation dedicated to the advancement of patient safety. Based in Adelaide, South Australia, the APSF has a small but specialised staff that conducts research into patient safety and maintains a number of national databases of adverse events and near misses.

The APSF strives to improve outcomes for patients by making healthcare safer.

About 10% of patients in hospitals experience an adverse event (actual harm due to healthcare), such as a healthcare acquired infection, a fall or a medication error. Patient safety encompasses the minimisation of risk of patient harm due to healthcare, rather than underlying disease or sickness. The APSF has been a leader in raising awareness about patient safety since 1988.

Working with a range of stakeholders and drawing from a variety of fields, including healthcare, human factors and aviation, much of our work focuses on the use of methods such as incident reporting systems and medical record review to learn from adverse events and near misses. The APSF delivers patient safety education and training, conducts consultancies and research, and provides expertise and capacity to collect, classify and analyse datasets to develop preventive and corrective strategies.

The APSF Constitution outlines 33 objectives of the Foundation. Broadly, these can be grouped according to four key areas, 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 on the activities of the APSF for the financial year 2009-2010 will focus on these four key areas.

(i) Research and education

In 2009-10 the APSF continued its role in patient safety training of undergraduate and postgraduate healthcare professionals in South Australia. Presentations were made 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 specialties.

Additionally, postgraduate supervision has been provided to a number of students undertaking Higher Degrees. Highlights include completion of Caroline Lee's PhD (University of Adelaide) on 'Role of the gerontological nurse practitioner in Australia'.

Ongoing students include:

- 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

- Mr Martin Basedow, PhD, University of South Australia – Are older patients receiving quality health care?
- Dr Sarahlouse Jones, Master of Clinical Science, Joanna Briggs Institute, University of Adelaide - The accuracy of swine flu testing: A systematic review of diagnostic test accuracy.
- Ms Natalie Menzies, Master of Clinical Science, Joanna Briggs Institute, University of Adelaide – A systematic review of diagnostic test accuracy of dipstick urinalysis combined with clinical symptoms to detect urinary tract infection in adults.

A summary of some of the presentations given over the last year is included below.

- Hannaford, N. Radiology events register - data analysis and clinical interest groups. Medical Imaging Nurses South Australian Branch Meeting, Repatriation General Hospital, 24 Feb 2010.
- Hannaford, N. Radiology events register - data analysis and clinical interest groups. The Queen Elizabeth Hospital Radiology Department TQEH Adelaide, 28 Apr 2010.
- Runciman, B. Hippocrates or Hypocrites? Medicolegal Society of Victoria, Melbourne, 21 Aug 2009.
- Runciman, B. Panel discussion - the way forward. Human Factors in Australian Healthcare Symposium Annual Symposium, Melbourne, 11 Sep 2009.
- Runciman, B., T. J. Schultz and N. Hannaford. The Australian Patient Safety Foundation. Sansom Institute Seminar Series, University of South Australia, 4 Mar 2010.
- Runciman, W. B. CareTrack Australia. Australian Healthcare and Hospitals Association Congress, Hobart, 9 Oct 2009.
- Runciman, W. B. The International Classification for Patient Safety - Thread 3. ISQua 26th International Conference, Dublin, 14 Oct 2009.
- Runciman, W. B. Linking evidence based healthcare to improved patient safety. Joanna Briggs Institute International Convention, Adelaide, 9 Nov 2009.

Relevant research articles and reports published in the year 2009-10 are listed below.

- Benveniste, K. (2010). Diagnostic error in radiology: Literature review Adelaide, Australian Patient Safety Foundation.
- Benveniste, K. (2010). Handover error in medical imaging: Literature review. Adelaide, Australian Patient Safety Foundation.
- Braithwaite, J., D. Greenfield, J. Westbrook, M. Pawsey, M. Westbrook, R. Gibberd, J. Naylor, S. Nathan, M. Robinson, B. Runciman, M. Jackson, J. Travaglia, B. Johnston, D. Yen, H. McDonald, L. Low, S. Redman, B. Johnson, A. Corbett, D. Hennessy, J. Clark and J. Lancaster (2010). "Health service accreditation as a predictor of clinical and organisational performance: a blinded, random, stratified study." Qual Saf Health Care **19**(1): 14-21.
- Braithwaite, J., W. B. Runciman and A. F. Merry (2009). "Towards safer, better healthcare: harnessing the natural properties of complex sociotechnical systems." Qual Saf Health Care **18**(1): 37-41.
- Carpenter, K. B., M. A. Duevel, P. W. Lee, A. W. Wu, D. W. Bates, W. B. Runciman, G. R. Baker, I. Larizgoitia and W. B. Weeks (2010). "Measures of patient safety in developing and emerging countries: a review of the literature." Qual Saf Health Care **19**(1): 48-54.

- Hannaford, N., D. N. Jones, C. Mandel and T. J. Schultz (2009). Radiology Events Register - Final report to Quality Use in Diagnostic Imaging (QUDI) program, Royal Australian and New Zealand College of Radiology. Adelaide, Australian Patient Safety Foundation.
- Newton, R. C., O. T. Mytton, R. Aggarwal, W. B. Runciman, M. Free, B. Fahlgren, M. Akiyama, B. Farlow, S. Yaron, G. Locke and S. Whittaker (2010). "Making existing technology safer in healthcare." Qual Saf Health Care **19 Suppl 2**: i15-24.
- Petrie, E., T. J. Schultz and A. Pearson (2009). "Informing and implementing policy to advance mental health and wellbeing through action research in a rural remote community mental health setting." Australasian Psychiatry **17(S1)**: S112-S115.
- Runciman, W. B. and J. Lumby (2009). Regulating clinical practice. Patient Safety First: Responsive Regulation in Health Care. J. Healy and P. Dugdale. Crows Nest, Allen and Unwin: 192-220.
- Schadewaldt, V. and T. J. Schultz (2010). "A systematic review on the effectiveness of nurse-led cardiac clinics for adult patients with coronary heart disease." JBI Library of Systematic Reviews **8(2)**: 53-89.
- Schultz, T. J. (2010). Interventions to improve the safety of radiology practice: Literature review. Adelaide, Australian Patient Safety Foundation.
- Schultz, T. J. and A. L. Kitson (2010). "Measuring the context of care in an Australian acute care hospital: a nurse survey." Implement Sci **5**: 60.

(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.

Radiology Events Register (RaER)

The RaER project was re-funded in early 2010. The focus of the project has now shifted to a greater focus on analysing and learning from incidents in the RaER database, while continuing to explore ways to improve incident reporting practices and increase awareness of error in medical imaging. Three clinical interest groups will be formed in mid 2010 to lead the analysis of RaER incidents to determine contributing factors and appropriate corrective strategies to improve safety and quality of medical imaging. The three incident types to be analysed are: (i) critical data sharing, (ii) clinical handover/takeover and (iii) diagnostic error. The results of the clinical interest groups' analysis will be submitted for publication in the peer-reviewed literature and presentation at an internationally significant conference/symposium.

Increasing awareness of error and RaER has been achieved by:

- (i) planning the inaugural 'Australian Conference on Error in Medical Imaging' scheduled for Nov 11-12th 2010 in Sydney (<http://www.conferenceworks.net.au/apsf>) (see below)
- (ii) improvements to RaER data entry,
- (iii) the requirement for radiology registrars to report an incident each year as part of their training and
- (iv) awarding CPD points for entering incidents into RaER.

Incidents are now entered anonymously via www.raer.org. Radiologists, radiographers and

other disciplines involved in medical imaging are encouraged to report an incident into RaER.

Literature reviews conducted to support the project have indicated:

1. The *request for imaging* is a large source of handover error; standardised, written checklists such as 'Tickets to Ride' improve handover; technology (such as voice recognition, PACS, computerised notification) can improve efficiency but be a source of greater error; and appropriate communication of results includes acknowledging receipt of reports.
2. *Diagnostic error* is most common in the clinical question, request, technical performance, perception of images, interpretation of images, and clinical action stages of medical imaging cycle. A resource of over 70 case studies of diagnostic error in radiology is provided.
3. The application of *checklists and time-outs in radiology* has been based on reduced adverse events in surgery. However, the evidence base in radiology is not yet developed. Other interventions (eg use of technology, developing a culture of safety) are proposed to also reduce error in radiology.

In September 2009, the APSF convened a multidisciplinary group to assist in the planning of a conference to promote the activities of the RaER project and its findings. The members of the organizing committee are listed below. The Australasian Conference on Error in Medical Imaging: Making imaging safer is scheduled for 12-13th November 2010 at the Swiss Grand, Bondi.

Tim Schultz Australian Patient Safety Foundation
Bill Runciman Australian Patient Safety Foundation
Tatjana Zrimec Medical Imaging Informatics, Centre for Health Informatics, University of New South Wales
Neil Jones Diagnostic Radiology, Flinders Medical Centre and Flinders University; Human Factors and Safety Management Systems, University of South Australia
Carmel Crock Emergency Department, Royal Victorian Eye and Ear Hospital
Jane Grimm Royal Australian and New Zealand College of Radiologists
Catherine Mandel University of Melbourne, Peter MacCallum Cancer Centre
Matthew Thomas Human Factors and Safety Management Systems, University of South Australia
Richard Clark Avant

Anaesthetic database

Reporting of incidents to the APSF by anaesthetists has continued to occur on an *ad hoc* basis following a number of targeted projects involving anaesthetists and the APSF in the 1990s and early 2000s. However, with no funding mechanism to support the database, there has been no activity in classifying incidents or analyzing data. The database of over 10,000 incidents is stored on APSF servers.

Coroners database

The APSF has classified some 300 adverse events that resulted in death of the patient into an AIMS database to compare findings with analysis of other data sources, such as incident reports from hospitals, medical record reviews, complaints, medico-legal cases etc. Data has been abstracted from coronial and police reports with a view to summarizing incident types, contributing factors and key recommendations. The manuscript is being finalized.

(iii) Services related to patient safety

World Health Organization - Patient Safety

The Australian Patient Safety Foundation provided consultancy services to the World Health Organization - Patient Safety program to develop content for the International Classification for Patient Safety (ICPS). The purpose of the ICPS is to enable categorisation of patient safety information using standardised sets of concepts with agreed definitions, preferred terms and identified relationships based on an explicit domain ontology. It is designed to facilitate the description, comparison, measurement, monitoring, analysis and interpretation of information to improve patient care, and to be used for epidemiological research and health policy planning purposes. It is envisaged that the ICPS will become part of the WHO Family of Classifications, which includes the International Classification of Diseases (ICD) and International Classification of Functioning, Disability and Health (ICF).

The aim of the consultancy was to make the ICPS an operating classification based on the conceptual framework that was published in January 2009. Content for two healthcare incident types – ‘Pressure ulcer’ and ‘Fall’ – was developed as part of the project. The content was sourced from existing classifications systems and patient safety knowledge, and subsequently reviewed by a group of international experts.

Fifteen of the 18 experts agreed to be involved. Ten countries and four WHO regions were represented. The outputs from the project were:

- Web ontology language (OWLs), (Protégé, version 4) for pressure ulcer and fall classifications
- Summary of expert feedback
- An online method of graphically representing each classification and providing textual details including definitions, cross-mappings with other relevant classifications and information sources <http://icps.apsf.org.au/Home.aspx>
- Toolkit for reviewers.

It is envisaged that the OWLs will ultimately be released for wider feedback from the patient safety community at large.

(iv) Clearing house for patient safety information

The APSF website (www.apsf.net.au) continues to be the main mechanism by which APSF communicates with its members and the general public. The website provides citations and links to patient safety research papers published by APSF personnel. The website includes ‘News’, ‘Contact details’, ‘Articles and Resources’ and ‘Newsletters’. The APSF sold 24 anaesthesia crisis management manuals this year.

APSF Council

The APSF Council governs the activities of the Foundation. The Executive positions on Council were filled by: Professor Jeffrey Braithwaite (Chairman), Professor Bill Runciman (President), Professor Guy Maddern (Vice President) and Dr David Tye (Treasurer). The full APSF Council during 2009-10 is listed below.

Council member	Position
Prof Jeffrey Braithwaite	APSF Chairman (Foundation Professor & Director, Australian Institute of Health Innovation, Centre for Clinical Governance Research, Faculty of Medicine, UNSW)
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 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)

Three Councillors resigned from APSF Council during the year: A/Professor James Harrison, Dr Neil Maycock and Ms Tracey Hutt. Their contribution to the APSF, across many years and different roles, is very greatly appreciated and they are thanked for their efforts.

APSF Planning Day

A planning day involving APSF staff, Council and collaborators was held in mid-November 2009. Chaired by Professor Jeffrey Braithwaite, the day was used as an opportunity to review the strategic direction of the APSF and to plan for the continued development of the APSF.

Some of the outcomes from the day included:

- Revision of the 10 Aims of the APSF (see below)
- Assessment of APSF governance against guidelines
- Review of APSF finances and home

- Review of core relationships
- Consideration of better utilization of existing data
- Drafting of conflict of interest document for APSF Council
- Commitment to rejuvenate APSF members and APSF Council as required
- Commitment to influencing practice through translational research
- Development of a publications strategy

Aims of APSF

As part of the planning day, the ten aims of the APSF were updated. The updated list reads as:

1. To be an agent for improved patient safety through research into policy and practice in healthcare
2. To organise and conduct 'workshops' and 'think tanks'
3. To organise and conduct educational activities and courses
4. To promote wider use of existing APSF data resources and further refine the analytical tools available for analysis of patient safety data
5. To promote, organise and co-ordinate incident reporting and critical incident reporting studies
6. To further develop patient safety classifications suitable for use in Australia and internationally
7. To partner consumers and consumer organisations, healthcare organisations, researchers, government and non-government organisations and professional colleges/guilds in their quality improvement activities
8. To offer research services relating to patient safety
9. To act as a clearing house for patient safety information
10. To be self funded through APSF memberships, research funding, consultancies, development of intellectual property, hosting profitable conferences.

Staffing

APSF staffing levels were steady at 3 FTE during the year. Ms Randi Cross was appointed as APSF Finance Officer, taking over from Ms Amanda Anderson following the complete separation of APSF and Patient Safety International.

The 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

Relationships

In pursuit of its core objectives, the APSF collaborates with a number of other organisations including:

- Adelaide's three universities in providing undergraduate patient safety education and postgraduate supervision and conducting collaborative research
- Providing postgraduate supervision for students at Joanna Briggs Institute
- The Australian Institute of Health Innovation and NHMRC Patient Safety Program Grant, with researchers based at University of New South Wales, University of South Australia and St Vincent's Hospital Sydney
- Cochrane systematic review teams, with reviews on nurse staffing being led by Dr Michelle Butler, University College Dublin and asthma self management being led by Dr Anil Roy, The Queen Elizabeth Hospital, Adelaide.
- Medical colleges, in particular the Australian and New Zealand College of Radiologists
- Nutritionists and respiratory nurse practitioners at Royal Adelaide Hospital