

## Upcoming seminar

### Heatwaves and health - from impact to harm prevention

#### About the seminar:

Episodes of extreme heat, also known as heatwaves, are an important public health issue because they cause death and illness and are very likely to become more frequent and more severe in the future. Heatwaves have the greatest impact on the health of those who are least able to care for themselves, including older people, particularly those who are frail, already ill and socially isolated. It is known that many heatwave-related deaths are preventable, supporting the importance of heatwave preparedness measures.

This seminar will include discussions of the impact of heatwaves on public health, the normal responses of humans to heat and how this is affected by the ageing process, heat-related illnesses, medications and hot weather.

Researchers from Victoria will discuss their heatwave research. Speakers from a range of sectors including Residential Aged Care, Local Government and the Ambulance Service Victoria, will discuss lessons learned from the 2009 heatwave and preparedness strategies for future extreme heat events, and approaches to harm minimisation will be explored.

#### Who should attend:

The seminar will be of value to those involved in the care of older people in community or Residential Aged Care settings, and to those involved in planning for the prevention of harm to vulnerable groups from exposure to extreme heat.

**Venue:** State Library of Victoria, Village Roadshow Theatre, Entry 3 (Conference Centre entrance), 179 La Trobe Street, Melbourne Vic 3000.

**Seminar date:** Thursday 19th August, 2010

**Seminar time:** 9:15am - 4:00pm  
(Registration opens at 8:45am)

**Cost:** \$165 per person (incl. of GST)

Further venue details, accommodation and parking information can be found on our website at:  
[www.crepatientsafety.org.au](http://www.crepatientsafety.org.au)

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Centre of  
Research Excellence  
in Patient Safety

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The Centre of Research Excellence in Patient Safety is based in the School of Public Health and Preventive Medicine, Monash University, Alfred Hospital.

Collaborating institutions include: Australian Commission on Safety and Quality in Health Care, National Health and Medical Research Council, Bayside Health, University of Queensland, Melbourne Health, Southern Health, Wimmera Healthcare Group, ACT Health, ANU Centre for Health Stewardship, Victorian Institute of Forensic Medicine, CSIRO, Medical Defence Association of Victoria, Peninsula Health, Queensland Health, Australian Centre for Health Innovation, South Australian Department of Health, Western Australian Department of Health, Australian Institute for Health and Welfare (AIHW), Commonwealth Department of Health and Ageing, Australian Council for Healthcare Standards (ACHS), Victorian Department of Health, Monash University Department of General Practice, Clinical Excellence Commission, Melbourne Pathology, Peter MacCallum Cancer Centre, Princess Alexandra Hospital, Boston University (US), Veterans' Affairs (US), Imperial College School of Medicine (UK), Bergen University (Norway).

## Adverse events in hospitals: the patient's point of view



Masso Guijarro P, Aranes Andres JM, Mira JJ et al. Adverse events in hospitals: the patient's point of view. *Qual Saf Health Care* 2010;19(2):144-147.

Despite extensive research addressing the causes, consequences and prevention of adverse events experienced during medical care, there has been less consideration of the perception of the patient regarding safety of care within hospitals. This paper reports a systematic review of published literature conducted to investigate the patient's view of the frequency, causes, consequences and management of adverse events during hospital-based clinical care, as well as their perception of safety in this setting.

A systematic search of medical and social science databases, as well as a manual search of the bibliographies of selected articles, was conducted to identify articles or reports published between 1989 and 2006 that addressed patient's perceptions of clinical safety in hospitals, incidence of adverse events reported by patients, and consequences of adverse events experienced by patients. Retrieved studies were systematically reviewed to answer four questions:

1. how often do patients report having experienced an adverse event?
2. do patients feel safe in hospitals?
3. how does patient-provider communication influence patients' perception of clinical safety?
4. what do patients suggest in order to prevent adverse events?

A total of 21 articles were selected for inclusion in the study. Of these, the frequency of adverse events was most commonly addressed (eight articles), while only three articles discussed prevention. The selected studies varied with regard to study population and methodology. The results of article review are presented within the discussion section, but consistent answers to the specific study questions are difficult to discern. The strongest finding (based on the number of articles reporting this) was that patients want immediate and full disclosure of errors, and expect an apology, emotional support and assurance that efforts will be made to prevent such errors occurring again.

Study validity is limited by small sample size, lack of information about inclusion and exclusion criteria, and limited discussion of validity of individual articles. Editing issues also make interpretation of results difficult. The online Appendix provides a summary of only 20 selected articles but does not make clear which articles were used to address each of the study questions. Data provided in the text is not consistent with that appearing in the abstract. Nevertheless, if the search strategy has indeed captured all available published literature addressing patient perception of adverse events in hospitals, a deficit in this area of research has been highlighted.

**Take home message:** From limited evidence, the authors conclude that patient reporting is a reliable way to identify the frequency of adverse events, but that the patient's perception of an adverse event is different to that of the physician and is influenced by the quality of patient-physician communication. Most patients want adverse events to be disclosed and physicians to be sanctioned, and believe reporting adverse events to state agencies will help to prevent future mistakes.

## A model for medication safety event detection

Snyder RA, Fields W. A model for medication safety event detection. *Int J Qual Health Care* 2010;22:179-86.

Optimal detection of hospital medication safety events (MSEs) is currently limited by reliance on self-reporting of adverse drug events (ADEs). This study aimed to describe a system-focused approach to improve detection rates, and to illustrate this with a case study.

This study utilised a system-focused MSE assessment designed to improve detection rates of medication-related events was outlined. The assessment incorporated a detection model to assess and categorise MSEs as error or non-error events (Box).

### Box: System-focused MSE detection

Error events	Preventable ADEs (able to be prevented by existing clinical practices)
	Intercepted potential ADEs (potentially harmful errors that don't reach the patient due to adequate system safe guards)
	Non-intercepted ADEs (potentially harmful errors reaching patients due to system failure)
Non-error events	Non-preventable ADEs (beyond clinician control)

Two previously standardised measures were adapted to define and classify ADEs by severity (The National Coordinating Council Medication Error Reporting and Prevention Index) and to determine whether the ADEs were preventable or non-preventable. Periodic assessment provided measures of sensitivity and accuracy of event detection and classification, in conjunction with appraisal of inter-rater reliability. Consistent methods of data collection to ensure effective assessment of MSEs typically comprises multiple methods of detection: non-voluntary (computerised triggers) and voluntary (incident reports, self-report and chart review); and accurate classification of error/non-error events according to decision rules.

A case study was conducted in 17 units across two community hospitals in the USA. Data were collected on week days for 20 days utilising the system-focused method of MSE detection described above. The outcomes were measured as number of events then converted to percentages of:

1. the number of MSEs, and their classification (i) ADEs – preventable and non-preventable; and (ii) potential ADEs – intercepted and non-intercepted
2. the methods of detection (i) non-voluntary – chart review, pharmacist surveillance, Pyxis® trigger report, laboratory value trigger report; (ii) voluntary – incident, hotline, or verbal reports; and (iii) other

The majority of MSEs identified were potential ADEs (82%). Of the potential ADEs, 70% were non-intercepted events; 85% being detected by non-voluntary methods. The MSE detection process was limited by high yield of false positives (Pyxis® medication triggers and laboratory value triggers) and need for

multiple, trained reviewers making the assessment process labor intensive and expensive.

This case study illustrated use of a standardised methodology for improving detection of MSEs with a system-focused approach in two hospitals during a limited time period. Although yields were low for voluntary detection methods, they were much more specific than non-voluntary methods. This model identified a large proportion of MSEs that would not have been detected using the traditional methods of error reporting. A large multi-centre study is recommended to evaluate the effectiveness of this method.

**Take home message:** Use of a system-focused medication event assessment facilitated detection of harmful and of potential ADEs that were indicative of medication system failure in this case study. Incorporating such an approach would likely provide information to facilitate system improvements that optimise medication safety.

## Adverse events experienced by homecare patients: a scoping review of the literature



Masotti, P, McColl, MA, Green, M. Adverse events experienced by homecare patients: a scoping review of the literature. *Int J Qual Health Care* 2010;22(2):115-125.

Adverse events occur in all health care facilities, and to date, most research has focused on patients in hospital. Despite little research focusing on healthcare in the home, it is likely that the homecare environment is not immune to adverse events. This is of particular importance given the demand for homecare increasing due to population growth and health system characteristics. This study aimed to summarise the results of a literature review focusing on the occurrence of adverse events experienced by homecare patients.

The authors conducted a literature search of medical and social science databases, and the World Wide Web. The search strategy was designed to identify all articles relating to homecare directed services provided in the home by healthcare professionals or caregivers, which addressed a characteristic relevant to patient experienced adverse events. Indexed and grey literature was included and articles were excluded if they were not available in English language.

1007 articles were identified from the search, of which 168 were deemed to meet the study's inclusion criteria. These articles were categorised into one of six categories;

1. definitions and types;
2. rates;
3. causes;
4. consequences;
5. interventions; and
6. policy suggestions / implications.

Eight themes emerged from the literature; adverse drug events, line-related, technology-related, infections and urinary catheters, wounds, falls, studies reporting multiple rates and other. Reported overall rates of adverse events ranged from 3.5

to 15.1% with higher rates for specific types. Few intervention studies were found. Adverse events were commonly associated with communication problems.

The authors conclude that a standardised definition of adverse event in the homecare setting is needed. Policy suggestions included the need to improve assessments, monitoring, education, coordination and communication. The authors identified three key areas worthy of future research. These were;

1. incidence rates of 'multiple' adverse events;
2. multi-level variables associated with the occurrence of adverse events; and
3. studies which evaluate interventions aimed at reducing the risk of homecare patients experiencing adverse events.

Whilst this paper is not a true systematic review, it does achieve its goal of providing a 'scoping' review; delivering an overview of existing literature that identifies areas where more research may be required.

**Take home message:** Adverse events occur within the homecare setting just as they do within other traditional healthcare settings. Adopting a standardised definition for 'adverse event' in this setting will assist investigators to better understand the true extent and range of adverse events experienced by the homecare patient.

## Adherence to surgical care improvement project measures and the association with postoperative infections

Stulberg JJ, Delaney CP, Neuhauser DV et al Adherence to surgical care improvement project measures and the association with postoperative infections. *JAMA* 2010;303(24):2479-85.

The aim of this retrospective cohort study was to examine the relationship between Surgical Care Improvement Project (SCIP) infection-prevention process of care measures and postoperative infection rates from 398 hospitals in the United States. Surgical care improvement, and specifically reduced infection rates, are important in acute care hospitals. The SCIP is a national quality partnership committed to reducing the rate of surgical complications. SCIP aims to reduce surgical infectious complication rates through measurement and reporting of infection prevention measures. Data was obtained from Premier Inc's Perspective Database for discharges between July 1, 2006 and March 31, 2008, of 405,720 patients (69% white and 11% black; 46% Medicare patients; and 68% elective surgical cases). SCIP performance was recorded and submitted for public report on the Hospital Compare Web site. Three original infection-prevention measures (S-INF-Core) and all six infection prevention measures (S-INF) were aggregated into two separate all-or-none composite scores. Hierarchical logistical models were used to assess process-of-care relationships at the patient level while accounting for hospital characteristics. The main outcome measure was the ability of reported adherence to SCIP infection prevention process-of-care measures to predict postoperative infections.

There were 3,996 documented postoperative infections. The S-INF composite process of care measure predicted a decrease in postoperative infection rates from 14.2 to 6.8 per 1,000 discharges. The S-INF-Core composite process-of-care measure predicted a decrease in postoperative infection rates from 11.5 to 5.3 per 1,000 discharges which was not a statistically significantly lower probability of infection. None of the individual SCIP measures were significantly associated with a lower probability of infection. The authors note some limitations to the study. Namely, the

ICD9 discharge record codes have debateable sensitivity. The authors point out they were unable to account for infections that occurred after discharge. The Premier Inc Perspective data was also questioned as it may not reflect other parts of the country as the hospitals participating in the Premier Inc system may on average be more or less dedicated to improving the quality of their hospital. Trend analysis may not be accurate as it lacks a control group. Despite these limitations the authors concluded that among hospitals in the Premier Inc Perspective Database reporting SCIP performance, adherence measured through a global all-or-none composite infection prevention score was associated with a lower probability of developing a postoperative infection. SCIP performance adherence reported on individual SCIP measures was not associated with a significantly lower probability of infection.

**Take home message:** Although publically reported adherence rates to SCIP process of-care measures were associated with improved patient outcomes, the individual item relationships are weak and lack clinical significance. Improved individual process-of-care measures and use of aggregation techniques in addition to improved data collection methods may be necessary to truly drive improvements in patient outcomes.

## Patterns of nurse-physician communication and agreement on the plan of care

*O'Leary, KJ, Thompson, JA, Landler, MP, et al. Patterns of nurse-physician communication and agreement on the plan of care. Qual Saf Health Care 2010;19:195-199.*

Effective communication between disciplines is important to provide safe and effective care. Communication failures of one kind or another are frequently linked to errors and medical mishaps. Whilst barriers to effective communication have been well studied in operating theatres and intensive care units, few studies have focused on communication in the general medical inpatient setting. This study aimed to characterise patterns of nurse-physician communication, assess the frequency of nurse-physician agreement on plans of care and explore the association between communication and agreement for hospitalised general medical patients.

This study utilised interviews of a cross section of patients, their nurse and their physicians over a one month period. Patients and their carers were randomly selected to be invited to participate in this study on their second afternoon of their hospital stay. The researchers administered a structured interview instrument which was designed to characterise nurse-physician communication and assess understanding of the plan of care for the patient. Patients with cognitive impairment or difficulty understanding or speaking English were excluded, however nurses and physicians of these patients remained eligible for participation in the study.

Over the one month period, 229 eligible patients agreed to participate in the study. 310 of the patients' nurses participated and 301 of the patients' physicians completed the interview. The majority (89%) of patients expected that nurses and physicians would discuss their care on a daily basis. Nurses reported they communicated with physicians 50% of the time whilst physicians reported communicated with nurses 62% of the time. Communication was reported by both physicians and nurses to be predominately face-to-face, with the telephone being the next most frequent mode of communication. 29% of nurses didn't know who their patients' treating physician was and 64% of physicians were not able to identify their patients' nurse.

Nurses and physicians were in 'complete agreement' just over half the time on aspects of the plan of care of their patient including primary diagnosis (52.8%), planned tests (58.7%), planned procedures (88.7%), medication changes (53.7%) and physician consultations (53.7%). Agreement was less frequent

with regards to the anticipated length of the patient's stay, with complete agreement only being achieved in one-third of interviews.

This study was limited by a lack of assessment of the content and quality of nurse-physician communication (whilst not one of the aims of the study, may have impacted on the agreement of the plan of care between nurse and physician) and the fact that the study reflects the experience at only one academic hospital in North America conducted over a relatively short time period.

The authors conclude that nurses and physicians did not communicate 40% to 50% of the time for hospitalised general medical patients, and that their research reveals a "critical deficit in communication and understanding of the plan of care between providers caring for hospitalised general medical patients".

**Take home message:** If poor interdisciplinary communication leads to error and medical mishap, health care facilities should spend more time, like the authors of this study, examining the characteristics and effectiveness of communication within their setting. Knowing who the physician or nurse responsible for the patient is seems like a logical place to start.

## Real-time clinical alerting: effect of an automated paging system on response time to critical laboratory values

*Etchells, E., Adhikari, N.K.J., Cheung, C. et al. Real-time clinical alerting: effect of an automated paging system on response time to critical laboratory values – a randomised controlled trial. Qual Saf Health Care 2010;19:99-102.*

Hospital patients with abnormal critical laboratory values are at increased risk of adverse events. Improved communication with more timely response to critical laboratory values is a recognised patient safety goal. Current practices for communicating these critical values to treating physicians can be highly variable. This Randomised Controlled Trial was conducted at one facility in Ontario, Canada over a three month period. It aimed to measure the effect of an automated paging system of critical values considered to have the potential to improve the 'housestaff' physician response times.

The main critical laboratory values considered were serum potassium and sodium, and haemoglobin levels. Exclusions included; critical troponin values (identified in pilot study to not lead to clinical response), critical values whilst patients were under the care of an emergency or critical care physician, and where critical values were deemed non-actionable. The intervention was an automated paging system that sent the critical value directly to the responsible physician's pager. The control arm consisted of usual care; communication via telephone call to the patient's ward by the laboratory technician. The measured outcome was response time, defined as the interval between data entry of the critical value into the laboratory information system to the writing of an order on the patient's chart in response to critical value. If time of order not documented, time of treatment administration was used to calculate response.

Study panel physicians reviewed information collected by the research nurse from both electronic and written medical records. A total of 108 patients with 165 critical values were included. Randomisation was computer-generated with the study nurse and reviewers unaware of allocation. The demographic and critical value distribution between both groups was similar.

The median response time was 16 minutes (IQR 2-141) for the intervention group and 39.5 minutes (IQR 7-104.5) for the usual care group ( $p=0.33$ ). Overall, the authors found a 23 minute reduction in median response time to critical values with automated paging, however this difference was not statistically significant.

Limitations included exclusion of eligible patients due to missing documentation and potential bias in relation to the use of incentives to improve physician documentation of response times. If time of order was not documented, time of administration of treatment was used to calculate response time, thereby influencing results. In relation to this limitation, it may have been useful to consider the day of the week and time of day given that factors such as hospital activity and staffing levels may also be relevant.

**Take home message:** Problems with interface and integration of hospital systems, both automated and non-automated were highlighted in this study. The true potential for automated paging systems to improve communication of critical values and patient outcomes is yet to be fully realised; attaching real-time decision support to the communication of critical values for example, is being planned to further enhance this process.

## A retrospective audit of family history records in short-stay medical admissions



Langlands, A.R., Prentice, D.A., Ravine, D. A retrospective audit of family history records in short-stay medical admissions. *MJA* 2010;192(12):682-684.

Consideration of family history in the context of acute illness can provide valuable insight into the social circumstances of individual patients and offers opportunities for improved health outcomes. This study retrospectively examined the frequency and adequacy of medical staff documentation of family history for patients admitted to a short stay medical unit in a tertiary teaching hospital in Perth, Western Australia over a six month period.

Case notes of 300 randomly selected patients admitted to the short stay unit via the emergency department were reviewed to identify family history details recorded. Family history documentation was categorised as:

1. family history with some specific details included,
2. family history with summary information only and
3. no family history included.

Distribution of patients by age and gender were similar, the detail of distribution by presenting complaint across these categories was not provided.

Of the 300 case notes reviewed, 221 (73.7%) had no family history documented and only 48 (16%) had documentation of

family history about at least one family member. Family tree documentation was not found in any case notes, with family history details of two generations found in only five cases. The highest rate of family history documentation was found in patients presenting with chest pain. Of these patients (median age 59 years), 47% had some comment about family history, with only 33.3% having any comment about presence or absence of ischaemic heart disease among their relatives. Results showed increased documentation of family history among younger patients. Family history was documented in around 33% of those aged less than 50 years and between 50-74 years, compared with 13% in patients aged over 74 years. Other studies in the UK and USA have demonstrated similar results. An unpublished study at the same site examining patients with cardiac-type chest pain four years earlier found documentation in only 14% of cases, however, the authors noted that emergency department documents did not contain a prompt for recording family history in those cases.

Family history is considered a component of the patient's routine medical examination and is part of undergraduate medical education. Reasons postulated for the lack of family history documentation are suggested to be related to: high medical staff workloads, prevailing culture focused on acute health, local undergraduate medical education practices, lack of prompting to record family history in documents, and perception that family history is more relevant in primary health care setting. This study was unable to identify potential health gains from routine family history consideration in the setting of acute illness, or whether problems with documentation of family history were related more broadly to history taking or documentation practices, or both.

**Take home message:** The lack of documentation of family history in case notes may not necessarily mean that family history was not discussed with patients; however, if it is not documented it must be assumed to have not been done; the development and validation of a family history questionnaire suitable for hospital patients is worthy of consideration.

## The health implications of apologizing after an adverse event

Allan, A & McKillop, D, *The health implications of apologizing after an adverse event*, *International Journal for Quality in Health Care* 2010;22(2):126-131.

This is a paper by Australian psychologists looking at the possibility that open disclosure of an adverse incident may moderate its impact on the recovery and general health of patients through a non-systematic review of the relevant psychological and physiological literature. The review of the literature indicated that there was no existing evidence supporting this hypothesis. The authors considered the evidence supporting the psychological and physiological benefits of forgiveness, the evidence that an apologetic response that incorporates expressions of responsibility, regret and intended action promoted forgiveness. They concluded that there is preliminary support for further investigation of the hypothesis that open disclosure can moderate the recovery and health of patients after an adverse incident.

This paper is based on a non-systematic review of relevant psychological and physiological literature. The search

strategy and keywords used to obtain the papers were not described in the paper, nor were the databases queried stated. There was no attempt to stratify the papers reviewed according to their levels of evidence, and no comments were made in relation to individual study sizes or types, nor were there any mention of standardisation or attempts to control for differences. The papers described were not related to open disclosure with patients per se, but general research based on the concepts of “unforgiveness” and “forgiveness”. The authors noted that many of the studies they looked at were “not methodically strong” and admitted that “the evidence is not strong” in relation to the fact that it may be good for the health of people if they forgive wrongdoers.

The authors defined a “full apology” as “one that consists of an admission of responsibility for causing the harm, an expression of regret, and action to remedy the harm and to prevent future occurrences of similar incidents”. Despite the lack of strong evidence, the authors concluded that there was “modest evidence” that might plausibly connect a policy of disclosure with better health outcomes, especially if the disclosure incorporates an apology and an admission of responsibility. The authors further concluded that this is an area “worthy of further empirical investigation”. A case control or cohort study could be carried out comparing health outcomes, but as open disclosure has already been a Victorian Department of Health policy for a few years with most hospitals with existing open disclosure policies in place, and because of existing ethical and legal obligations to do so, a control population may not be possible.

**Take home message:** There are already other compelling reasons for carrying out open disclosure, and this paper is unlikely to influence current policy or practice.

## Community falls prevention for people who call an emergency ambulance after a fall



Logan PA, Coupland CAC et al. Community falls prevention for people who call an emergency ambulance after a fall: randomised controlled trial. *BMJ* 2010;340:c2102.

Falls are a significant cause of disability, health care utilisation and reduced quality of life for older people. Frequently, when a person falls in their home or a residential aged care facility, the ambulance service is called. The role of the ambulance crew is to assess the extent of injury and need for hospitalisation. However, traditionally the service has not been responsible for the referral of patients for assessment and management of falls risk factors for the purpose of secondary prevention. In the context of an ageing population where the demand on ambulance and acute services for the management of fall related injuries is growing, such secondary prevention measures have become a priority target.

The objective of this well designed randomised controlled trial was to determine the impact of a community based falls prevention program on the rate of falls in older people (aged 60 years and older) who call an emergency ambulance when they fall but are not taken to hospital. The intervention was provided by

community fall teams, which included occupational therapists, physiotherapists, and nurses. Individualised multifactorial intervention programmes were provided to participants that targeted goals set by the participants and their therapist. Intervention was primarily delivered in the participants’ homes and included:

- Up to six sessions of physiotherapist delivered strength and balance exercises;
- Home hazard assessment;
- Practice in getting up from the floor provided by the occupational therapists;
- Nurse medication and blood pressure review; and
- As required referral to the family doctor for a medical review, or social care for help at home.

Participants were also offered up to 12 group sessions in community centres that included:

- One hour of physiotherapist delivered strength and balance exercises;
- One hour of education and functional activities led by an occupational therapist;
- Nutrition, equipment, home hazard, footwear and pacing advice; and
- Strategies for coping with activities of daily living and how to get up from the floor.

Control group participants had no further study intervention after recruitment and were advised by letter to use existing social and medical services as per usual care practice.

The study was of high methodological quality, using concealed allocation assignment and intention to treat analysis. The study was adequately powered and appeared to use appropriate statistical methods for the assessment of outcomes. There were 204 patients randomised. The study reported a significant reduction in the incidence of falls in the intervention compared with the control group (incidence rate ratio [IRR]=0.45, 95% confidence interval [CI] 0.35 to 0.58,  $P<0.001$ ). The intervention group also achieved significantly higher scores on the Barthel activities of daily living index and Nottingham extended activities of daily living scale. This indicates participants receiving the community based falls prevention program achieved greater gains in functional ability compared with control group participants. In addition, the intervention group participants achieved significantly lower falls efficacy scale scores at the 12 month follow-up compared to controls indicating they had higher levels of confidence in performing day-to-day activities. The number of times an ambulance was called because of a fall was also significantly lower during follow-up in the intervention group (IRR=0.60, 95% CI: 0.40 to 0.92,  $P=0.018$ ). These results suggest many positive benefits of referral of fallers attended by ambulance staff to a community based falls prevention program.

The multidisciplinary intervention was quite resource intensive with an average of 9.9 sessions for each participant, and the median duration of contact time for face to face therapy was 490 minutes. The study found that only one participant in the control group received a falls prevention program using existing clinical services. This raises questions about the availability, cost and accessibility of the existing clinical services and these may be critical factors to the effectiveness of similar programs.

**Take home message:** The studied community based falls prevention programs appears to be effective at reducing falls,

improving functional ability and confidence and reducing emergency service demand. These are important benefits. Further studies should be conducted to determine the relative therapeutic and economic benefits of this program and generalisability. Less resource intensive fall prevention models such as Tai Chi groups would be a useful comparison in such studies. The dependence on 1:1 home based intervention which is costly and resource intensive may be prohibitive to the clinical uptake of this care model.

## Time to listen: a review of methods to solicit patient reports of adverse events



*King A, Daniels J, Lim J et al. Time to listen: a review of methods to solicit patient reports of adverse events. QSHC 2010;19:148-157.*

This study provides a review of tools and techniques used to enable patients to report adverse events. Through a review of two databases (PubMed and MEDLINE) the study identified 11 papers, with an additional two being sourced from the references and another four being included based on the "suggestion of colleagues". In total 17 articles were reviewed.

The review determined that most surveys were undertaken to determine patients' perception of adverse events that occurred as part of a hospital experience, with four gauging perceptions in the primary care setting and five assessing both hospital and ambulatory care. In 11 papers adverse events were elicited from patients (65%) with the remaining being obtained through self report by patients. Patient-reported adverse events were obtained using face-to-face interview, telephone consultation and written survey, with interviewing obtaining the highest response rate. Two surveys used incentives to encourage reporting. In three hospital-based studies patient-reported adverse events were corroborated with other sources e.g. medical record review. Patient reported adverse event rates were found to be comparable with rates documented by healthcare workers in hospital studies. Adverse event rates varied from 0.1 to 5.8 incidents per patient.

Of some concern in this article is the process by which articles were sourced for inclusion in the review. The authors did not attempt to explain which four articles were not identified through the systematic review of the databases and why they were not flagged using this process. Variation in setting, types of errors reported and timeline of patient recall; coupled with the small sample size, meant that this article was unable to provide comparisons or aggregate findings across studies; it was simply a descriptive study.

**Take home message:** Patients and families as well as healthcare workers can be involved in reporting adverse events. There is some evidence that their reported rates correlate with rates reported by healthcare workers. This review provides some understanding of settings in which this work has been undertaken and an overview on which approaches yield the best response rates. It highlights the lack of consistency in classification and approach taken to obtaining patient-reported adverse events.

## Quality of care - How good is good enough?

*Sox HC and Greenfield S. Quality of care - How good is good enough? JAMA 2010;303(23):2403-2404.*

This commentary discusses the issue of measurement in healthcare. The authors state that the purpose of measurement is to provide accountability and that this, in turn, requires that thresholds for acceptable care are set. The level at which care is deemed acceptable is arbitrary. In the case of one quality program in the US the threshold is determined by taking into account adherence rates to the measures across a population.

The authors believe that the process of setting thresholds is not equitable and fails to take into account differences in populations (e.g. severity of illness and patient preference). Process of care measures rarely adjust for casemix when assessing adherence to measures and outcome measures usually have only rudimentary risk adjustment. This lack of precision means that some hospitals may never meet thresholds for set measures.

The authors believe that a better approach would be to judge quality of care based on whether a decision-making process has been undertaken by each patient in consultation with their treating doctor. A decision on whether appropriate care has been provided would be based in clinical practice, and would take into account each patient's treatment preference and their underlying clinical findings. Patients should be assisted in understanding treatment choices through decision aids, which take into account expected outcomes of the alternate treatments. In this way they can make a fully informed choice.

The authors state that if process and outcome measures are to be used to measure quality, they could either (i) just measure the decision quality as the sole quality measure (the preference) or, (ii) if rates of adherence to conventional practice measures are to be collected, they could be adjusted to take into account the quality of the decision making process.

**Take home message:** This commentary adds to an ever increasing body of literature advocating for greater patient autonomy in decision making and challenging the paternalistic attitudes of the medical profession. A challenge in taking it forward is determining how and who decides whether a patient has been involved in a fully informed decision-making process.

## Barriers to incident notification in a regional prehospital emergency medical system

Mr Paul Jennings (Centre of Research Excellence in Patient Safety)

Jennings, PA., Stella, J. *Barriers to incident notification in a regional prehospital setting. Emerg Med J. 2010 Jun 26. [Epub ahead of print]*

The identification of critical incidents is a relatively new area of study in the prehospital setting, yet there is considerable literature examining incident monitoring and adverse event tracking within the hospital environment<sup>1</sup>, particularly in such areas as surgery<sup>2</sup>, anaesthesia<sup>3</sup>, intensive care<sup>4</sup> and emergency departments<sup>5</sup>.

The authors undertook a qualitative approach involving unscripted focus groups, informal interviews and qualitative aspects of questionnaires to identify barriers to incident reporting. The findings of this study are likely to be as applicable to the community health setting, in-hospital environment or primary care as they are to the prehospital emergency medical system (EMS).

The barriers identified were categorised into seven broad themes; burden of reporting, fear of disciplinary action, fear of potential litigation, fear of breaches of confidentiality and fear of embarrassment, concern that 'nothing would change' even if the incident was reported, lack of familiarity with process, and impact of 'blame culture'.

**Burden of reporting:** The burden of reporting incidents was seen by many as an important issue. The need for a mechanism that allowed reporting of incidents in a timely fashion was seen as critically important. A mechanism which is quick and simple to complete, and is readily available in a range of locations is of value. Paramedics felt that they would be less likely to report an incident if they were not able to easily access a mechanism to report the incident, or if a period of time had elapsed following the incident.

**Fear of disciplinary action / Fear of potential litigation:** Despite participants being informed that the aim of the project was to identify systematic shortfalls rather than focusing on individual performance, and promoting the philosophy of a 'blame free' culture, staff cited fear of disciplinary action as a significant barrier to reporting.

**Fear of breaches of confidentiality / Fear of embarrassment:** Participants described some anxiety around their ability to remain anonymous. Several paramedics were sceptical regarding the ability of the 'system' to maintain their confidentiality and some participant's cited this concern as a potential barrier to reporting incidents. Participant's felt that being linked to certain types of critical incidents could be embarrassing within their peer group and may impact on their likelihood of being considered for promotion.

**Concern that 'nothing would change' even if the incident was reported:** Participants described a lack of faith that even though they may report an incident, the problem may not be dealt with by those responsible.

**Lack of familiarity with the process:** Some participants stated they had not reported a critical incident as they, "...only started recently and didn't know I could". Other similar projects have reported high levels of lack of awareness (up to 90%) and difficulty understanding who to report to in the early stages of implementing reporting processes<sup>6</sup>.

**Impact of 'blame culture':** Reporting of critical incidents was encouraged by both EMS and nursing / medical staff from the participating ED. Whilst not frequently cited as a barrier to notification, this 'cross-disciplinary sensitivity' could potentially reduce the likelihood of some to report critical incidents on the basis that they feel the process is not equally balanced. A focus on the errors of others (within EMS systems, or doctors and nurses particularly in Emergency Departments) has been identified in other papers as a major barrier to incident reporting within EMS systems<sup>7</sup>.

### CONCLUSION

Improvement of patient safety is a clear priority in the healthcare system. There are numerous barriers to reporting critical incidents. The fear of punishment is a natural human feeling, but in the interest of patient safety this fear or perception of risk must be alleviated. One of the key approaches which may alleviate many of the barriers to reporting is shifting to a systems based focus rather than an individual 'shame and blame' approach. The underlying barriers lie in the culture of the profession, and appear consistent across other health care disciplines.

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7 Fairbanks RJ, Crittenden CN, O'Gara KG, Wilson MA, Pennington EC, Chin NP, et al. Emergency medical services provider perceptions of the nature of adverse events and near-misses in out-of-hospital care: an ethnographic view. *Acad Emerg Med.* 2008;15(7):633-40.